

# INDIAN UNIVERSITIES COMMISSION.

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## UNIVERSITY OF CALCUTTA.

### PART II.

WRITTEN STATEMENTS PRESENTED BY WITNESSES.



CALCUTTA :

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## TABLE OF CONTENTS.

Serial No.	Number of witnesses in Part I.	
1	2	The Reverend Dr. K. S. MacDonald, formerly Principal of the Duff College, and President of the Board of Studies in English.
2	6	The Reverend Dr. J. Morrison, Principal, General Assembly's Institution.
3	7	Mr. A. C. Edwards, Principal, Presidency College, and Registrar of the Calcutta University.
4	11	Mr. W. H. Arden Wood, Principal of LaMartinère College, Calcutta.
5	13	Mr. H. Stephen, Officiating Principal, Duff College.
6	14	Mr. E. B. Havell, Principal, School of Art.
7	15	Mr. J. Van Someren Pope, Director of Public Instruction, Burma.
8	17	Mr. M. Prothero, Director of Public Instruction, Assam.
9	18	Mr. Nilmoni Mookerjee, late Principal, Sanskrit College, Calcutta.
10	19	Mr. J. S. Zemin, Principal, Doveton College.
11	20	M. M. Hara Prasad Sastri, Principal, Sanskrit College.
12	21	Mr. J. Chaudhuri, late Professor of Physics and Chemistry of the Metropolitan Institution.
13	22	The Reverend A. B. Wann, Professor, General Assembly's Institution.
14	23	Mr. G. C. Bose, Principal, Bangabasi College.
15	24	The Reverend H. L. Nansen, Principal, Bishop's College.
16	25	Mr. N. N. Ghosh, Principal, Metropolitan Institution.
17	27	Mr. C. R. Wilson, Principal, Patna College.
18	28	Mr. H. R. James, Professor, Patna College.
19	29	Mr. Abdul Karim, Assistant Inspector of Schools.
20	30	Mr. J. N. Farquhar, Professor, London Mission College.
21	31	Mr. Abdur Rahman, Judge, Small Cause Court.
22	32	Colonel T. H. Hendley, I.M.S., C.I.E., Inspector General of Civil Hospitals, Bengal.
23	33	Mr. Brajendra Nath Seal, Principal, Cooch Behar College.
24	34	Dr. Ross, Principal of the Calcutta Madrasa.
25	35	The Very Reverend Father A. Neut, S. J., Professor, St. Xavier's College.
26	36	Mr. E. M. Wheeler, Professor, Bangabasi College.
27	37	Mr. Wahed Hossain, Pleader, Judge's Court, Alipur.
28	38	Mr. Mahendra Nath Roy, formerly Professor, City College.
29	39	Dr. S. K. Mullick, St. Francis Hospital, London.

DR. K. S. MACDONALD, FORMERLY PRINCIPAL OF THE DUFF  
COLLEGE AND PRESIDENT OF THE BOARD OF STUDIES.

\*3. *Teaching Universities.*—I think it is expedient to enlarge the provisions of the Calcutta University, so as to make it clear that it is a teaching as well as an examining institution as petitioned for by its Senate in December 1890. As a member of the Committee appointed to consider that matter, I heartily approved of the petition which was founded on the Committee's Report of date 28th August, 1890. There are subjects of study for the teaching of which none of the affiliated colleges at present make provision, subjects for the study of which provision should be made, though the number of students be small. I include post-graduate subjects of study. The powers of the University are in other respects too limited, as illustrated in the memorial already referred to.

4. *Spheres of Influence.*—While students from whatever country they may come, should be welcomed by the University, only such colleges as can be conveniently visited by the University should be affiliated, unless special circumstances can be justly pled for exception—as, for example, in regard to Ceylon and Nagpur.

5. *Constitution—the Senate.*—The Calcutta University Senate is too large. I fear it is only too true that Fellowships have been given in the past merely by way of compliment; and certain it is that only a small number of Fellows regularly attend the ordinary meetings of the Senate. Many come only when a personal and contentious matter has to be decided, and they come simply to record their vote. I think the number should be limited; and that non-attendance for, say, two years, should disqualify; and that in the appointment of Fellows respect should be had to qualifications and official position, such as Principal of an affiliated college, etc.

In the election of Fellows votes should, I think, be given to Professors in affiliated colleges and to all Fellows of, say, five years' standing. In the Punjab University, the Senate elects a large proportion of the Fellows; in Calcutta they have had as yet no voice in such elections.

As to the tenure of Fellowships, I would have it depend on attendance within one year, if living in Bengal, or two years, if within that time they have been out of Bengal on furlough or deputation.

*The Syndicate.*—Considering the enormous amount of work the Syndicate has to get through, I do not think it is desirable to increase the number of the Syndics, unless the Syndicate be broken up into Committees entrusted with the disposal of certain classes of items of business of comparatively little importance, the disposal of which is largely guided by precedents and regulations or bye-laws. Another solution of the difficulty I would suggest is the entrusting of much of the business now transacted by the Syndicate to the Faculties of Law, Medicine, and Engineering—treating them as possessing greater independent powers than they at present possess. I think these Faculties should have more power over matters affecting themselves alone, and of no general importance, than they have at present by means of one or two representatives on the Syndicate.

Instead of being voted on, as at present, as one of the five representatives of the Faculty of Arts in the Syndicate, I would have the Director of Public Instruction *ex-officio* a Fellow of the University, a member of the Syndicate and President of the Faculty of Arts. Thus, irrespective of him, five Fellows would be elected by the Faculty of Arts as its representatives in the Syndicate.

I think that the Syndicate of the Calcutta University, like those of the Allahabad and Punjab Universities, should have a statutory basis.

8. *Graduates.*—There ought undoubtedly to be an authoritative official register of the graduates, and provision made for keeping it up to date. I

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\*The numbers refer to the paragraphs in the note of points for consideration supplied to the witnesses.

would also have power conferred on the University to give the M.A. degree or other suitable degree to recognised teachers, professors or examiners who come from other universities, and serve our university in any one of these capacities

9. *Students of the Universities.*—Under this head rather than any other, unless it be that headed 13—*Affiliated Colleges*, I would suggest the desirability of the University, by a specially appointed officer, or one or more members of the Syndicate, visiting the different affiliated colleges. Some thirty or forty years ago the Education Department, in the person of the Director of Public Instruction, was supposed to undertake this duty. But the discharge of it has fallen into abeyance or disuetude. In the interests of the colleges, the professors and the students, such a visitation should take place periodically. Cases have come before the Senate suggesting the desirability of such visitations.

I do not think that a minimum age should be fixed for candidates for the Entrance or Matriculation Examination. It would, I fear, tend to demoralise many of the candidates. The Calcutta University had, for years, a minimum age-limit. But from the reason given above, and other reasons, it felt compelled to give it up. Besides, the teachers, parents and guardians ought to be better judges as to whether, in given circumstances, their wards should be allowed to enter college. I doubt not certificates for admission are granted too easily, but I think to older candidates rather than younger. Besides, no age-limit could well be enforced on female candidates.

10. *University Teaching—English.*—I thoroughly agree with those who say that Indian students begin their University Course without a sufficient knowledge of English to profit by the lectures they attend. There are various ways by which this defect may be more or less remedied.

(1) It would greatly help the students to a more facile and correct command of English if they were made to talk it in the school-room, the play-ground, and the house. The school authorities have much in their power to secure the use of English in the class-room and the play-ground.

(2) A powerful exercise working towards the same end is translation into the Vernacular and from the Vernacular into English. This should be made a home exercise.

(3) Reading largely good, simple, interesting English books or periodicals. These exercises I would recommend as the result of my own personal experience. They are exercises which should be attended to independent of the teacher. I am of opinion that the Indian student gets too much teaching, and is not sufficiently induced to read and study independent of the teacher and professor. He devotes all his time to the prescribed texts, and has no time for independent reading.

As to work done under the teacher's direct personal guidance let me remark : (a) Large classes militate against effective successful teaching and careful examination of the written exercises ; (b) Higher proficiency should be demanded at all the previous examinations, despite the wailings of failed candidates and disappointed teachers and professors, over the small percentage passed ; (c) Examination papers should, as far as possible, be drawn up so as to baffle crammers and to encourage independent thinking and personal observation ; (d) The pieces or books selected for study should be such as to encourage a taste for reading, or create a love of reading, and not such as will weary, nauseate and produce a dislike to all reading, as associated with hard tasks and weary hours ; (e) Passages should be given to explain, taken from books not prescribed in the course, but passages which the candidates from their presumed knowledge of English ought to understand.

#### DEGREES IN THEOLOGY.

Recognition of proficiency in any study, more specially when the recognition is by a high authority, and accompanied with prizes, rewards or degrees, is an encouragement and a healthy incentive to further study by the recipient himself and also to others who may thus be induced to prosecute such studies. This is everywhere admitted as a mere truism, and is at the basis of all our universities.



There is no valid reason why Theology, the mother of all the sciences, should not be thus encouraged, or why those who have a taste for it should not be brought under the attracting and inspiring influence of Academic degrees and Government recognition.

It must, however, be admitted that there are serious practical difficulties in the way. Round many points with which the study of Theology has to do, are questions dividing its students into hostile camps, which have sometimes threatened the peace of nations. These must be acknowledged and treated most warily. Not to speak of the three great camps found in India, the Christian, the Hindu and the Mahomedan, representing Theology from different and opposing points of view, each of these again is sub-divided into sections bitterly opposed to one another, as, for example, the Christian into Protestant and Papal. How can any one University acknowledge and reward studies that are so utterly diverse from, if not hostile to, one another? My answer is twofold.

First, the University can give recognition and bestow rewards, in connection with the study of the languages and literatures of the different camps as mere languages and literatures. This the Calcutta University professes to do in regard to Greek and Hebrew, Sanskrit and Pali, Arabic and Persian. This it would do more effectually if it founded Professorships or Lectureships for the teaching of these languages. The Bengal Government bestows recognition and rewards with appropriate titles, on distinguished students, in Hindu, and Mahomedan literature and philosophy. The Punjab University gives a like liberal recognition to Oriental learning. Its doing so suggests the remark that it would have been better if the Bengal Government had given its favours through the medium of the Calcutta University.

In the second place, the difficulties in the way of the bestowal of degrees in Theology might be removed in whole or in part, by the establishment of Central Denominational or Theological Boards or Divinity Halls, or what is elsewhere called Federating Colleges. I mean colleges entering into a qualified union or federation with the University, and having representatives in its Senate, but differing from the affiliated colleges in possessing greater powers in dealing with contentious studies, than the affiliated colleges or even the University as a whole, would be able to do. These colleges would consist chiefly, if not exclusively, of denominational schools of Theology or Central Boards, empowered by the University, or rather by Government, to confer on their students such degrees or titles as are consonant with the nature of their studies and their distinction or proficiency in these studies. Let me illustrate what I mean.

At present, in the Calcutta Missionary Conference are associated the seven leading Protestant Evangelical Missionary Churches or Societies labouring in Calcutta—the Church of Scotland, the Church of England, the United Free Church of Scotland, the London Missionary Society, the Baptist Missionary Society, the Wesleyan Missionary Society, and the American Methodist Episcopal Church. In connection with this conference we have a Committee or Board for the examination of Missionaries in the vernacular of the country. To those Missionaries who pass the examinations creditably, official certificates are given stating in what class they pass, etc. The Board is purely an examining body, not a teaching institution.

Now it is proposed to establish, also in connection with the same conference, a Central Board to prescribe studies, in Theology, etc., arrange examinations, supply certificates, etc., on the success of which would be founded a claim for University recognition and University Theological degrees. At first it also might be a purely examining body, leading up to teaching federating colleges. This Central Board, and others like it established in University centres, I would have enter into a qualified union or federation with its local University, for the purpose of having conferred on the Board of College by a Legislative Act of Government the power of conferring Theological degrees on such of their candidates or students as these Central Boards or federating colleges considered qualified. Thus a Protestant federating college, or United Board or Senatus of a number of such would be entitled to confer the titles of B.D. and D.D. on such men as they thought worthy of these degrees. Of course

before a Christian Board or Senatus had such powers conferred on it, it would require to satisfy Government that it was a body worthy of such powers being conferred on it. To enable such a Board or federating college to fulfil the necessary conditions, it would require to have a close connection with an affiliated college in which its students would receive instruction in part of the Theological course required for the Theological degree and also a close connection with the University, in which I presume there would be a valuable and helpful library, and Lectureships or Professorships for subjects not taught in the affiliated colleges.

One of the advantages of federation with the University would be not only the direct recognition of Theological studies, but that the teachers and students would enjoy the same advantages and privileges enjoyed by the teachers and students of the affiliated colleges from their connection with the University. These advantages and privileges would be greatly enhanced, as I have tried to show, by the University teaching such subjects as it would be difficult to teach from the paucity of students in any one affiliated college.



## REPORT.

We, the undersigned members of the Committee appointed by the Senate to examine the Act of Incorporation of the University (Act II of 1857) with a view to suggest to the Senate what amendments, if any, are necessary in that Act in order to meet the present requirements of the University, have the honour to submit the following suggestions for the consideration of the Senate.

We are clearly of opinion that the time has come when it is very desirable to amend the Act of 1857. A comparison of that Act with the Acts passed in 1882 and 1887 for the constitution of the Punjab and Allahabad Universities, discloses the extent to which the Calcutta University Act has become obsolete. Neither of these Acts limits its University as does the Calcutta Act to the single function of examining, and as regards the constitution of the Senate, both these more recent Acts provide for the election of a certain portion of that body. The Calcutta Act nowhere recognises its executive body the Syndicate, and time has revealed other defects indicated in the suggestions made below. For these reasons we strongly recommend that Government be asked to amend the law which at present governs the constitution of the Calcutta University.

1. Preamble. Our first recommendation is that the Preamble of the Act should be amended so as to remove the limitation by which the functions of the University are confined to those of an examining body.

2. We recommend the following changes in the rules relating to the appointment of Fellows, Sections III and VI :—

(1) That the Director of Public Instruction, Bengal, should be added to the list of *ex-officio* Fellows, and that the Lieutenant-Governor of the North-Western Provinces should be removed from that list.

(2) That the number of Fellows, exclusive of the Chancellor, Vice-Chancellor, and *ex-officio* Fellows, should be fixed from time to time by the Chancellor, but should not be less than fifty, nor more than two hundred.

(3) That in future one half of such Fellows should be appointed by the Chancellor; and that of the remaining half, two-thirds should be elected by the Senate, and one-third by graduates of such qualification and standing as may be laid down in Bye-Laws to be made in this behalf, the elections in both cases being subject to the approval of the Chancellor.

(4) That if any Fellow leaves India without the intention of returning thereto, or is absent from India for more than four years, he should cease to be a Fellow.

(5) That in addition to the two classes of Fellows already mentioned, the Act should provide for the appointment of Honorary Fellows by the Chancellor, on the recommendation of a majority of not less than two-thirds of the members of the Senate present at a meeting convened for the purpose.

(6) That the number of such Honorary Fellows should be limited to thirty, and that not more than three should be appointed in any year.

(7) That Honorary Fellows should not be members of the Senate.

3. Section VII. We recommend that a clause should be added to this section requiring the consent of a majority of not less than two-thirds of the members present at a meeting of the Senate specially convened for the purpose, before the appointment of any Fellow can be cancelled.

4. Section IX. We recommend that at meetings of the Senate the quorum should be twelve instead of six.

5. Section X. We recommend that the words "University Professors and Lecturers" be added after the words "to remove all."

6. Section XII. We recommend the omission of the word "special" in the first line of this section.

Under the present rules the names of all Deputy Inspectors of Schools, Sub-Inspectors of Schools, Teachers and female candidates who pass the B.A. examination, as well as those of certain other candidates for degrees, must be laid before the Senate before they can be admitted to the degrees. The removal of this word will enable the Senate to pass a general resolution providing for all such cases.

7. Section XII. We recommend that the power of affiliating and disaffiliating institutions should be vested in the University, subject to the sanction of the Governor General in Council.

8. Section XIV. We recommend that for the words "and his proficiency in relation to other candidates" the following words be substituted "together with such particulars as the said Chancellor, Vice-Chancellor, and Fellows shall from time to time determine."

9. Section XV. We recommend that after the words "for continuance therein" the following words be added, "for admission to the examinations of the University, and for attendance at any lectures or classes in connection with the University."

10. We think that a section should be added to the Act recognising the position of the Syndicate as entrusted with the executive government of the University.

11. We recommend that a new section be introduced after Section XIV empowering the University, when necessary, to cancel the degrees it has conferred. In such cases the initiative should be taken by the

Syndicate; and the concurrence of a majority of not less than two-thirds of the members of the Senate present at a meeting specially convened for the purpose, and of the Chancellor should be necessary before a degree is cancelled.

12. We recommend that all examiners, officers and servants of the University should be declared to be public servants.

We recommend that the two clauses of Section XVIII of the Allahabad University Act should be introduced into the Act.

13. We recommend that another section be added to the Act to allow the University to grant "ad eundem" degrees.

This section might run as follows :—In the case of any person holding from a University in India or in the United Kingdom of Great Britain and Ireland a degree of a denomination ordinarily conferred by the University of Calcutta, the Chancellor, Vice-Chancellor, and Fellows may, on the recommendation of the Syndicate, confer on such person a like degree in the University of Calcutta.

MAHENDRA LAL SIRCAR.  
H. L. HARRISON.  
K. S. MACDONALD.  
C. J. H. WARDEN.  
RAJKUMAR SARVADHIKARI.  
A. NEUT, S. J.  
A. M. BOSE.  
ABDOOL LUTEEF.  
H. J. S. COTTON.  
LAL MADHUB MOOKERJEE.  
DEBENDRANATH ROY.  
N. N. GHOSE.  
KRISHNA BIHARI SEN.  
KALI CHARAN BANERJI.

*Calcutta, the 28th August 1890.*

I do not think it desirable to give graduates an unqualified power to elect Fellows. I think it right to add that my amendment to this effect was negatived by a majority of seven against six.

PEARY MOHAN MOOKERJEE.

I object to the recommendations in paragraphs 2 (3), 3, 5, 7 and 9; if these are omitted there is nothing left that is worth legislating about.

A. M. NASH.

*Dissent from the proposals of the Committee appointed to examine the Act of Incorporation.*

I object to Suggestion 1. It proposes to provide for the transformation into a *Teaching University* of a Body Corporate, which in thirty-three years has been unable to acquire sufficient funds for the proper performance of the functions of an *examining body*. I do not think the Senate should have the power to devote the funds of the University to the foundation of scholarships (still less to the endowment of Professorships and Lecturerships, for which no semblance of necessity has been proved to exist) until the following buildings *at least* have been provided: (a) a Physical Laboratory, with (b) a Chemical Laboratory, where candidates for degrees could be examined practically, without specially favouring any one institution; (c) a Library and proper offices for the Registrar, clerks, etc., with a hall for meetings of the Senate, in which the speeches of members would stand some chance of being heard. These are urgent present requirements, and to them will probably have to be added, within a few years, additional examination halls. The cost of land and buildings would be about six or eight laks: the accumulated funds amount to about one lak. In the face of this it is proposed to provide for Professorships! Suggestion 2 (3). If graduates are to have the power of nominating Fellows, I am very strongly of opinion that the nominees should be confined *by Statute* to candidates from among their own number.

The other suggestions are good on the whole, but of smaller importance, and, looking to the possibilities introduced by the two commented upon, I am of opinion that the present Act is preferable to the Act proposed.

J. H. GILLILAND.

30th August 1890.

## THE REVD. DR. J. MORRISON, PRINCIPAL OF THE GENERAL ASSEMBLY'S INSTITUTION, CALCUTTA.

English is the weak point in candidates for University Degrees. From 1887 to 1896, twice as many failed in English as in Mathematics, and nearly four times as many as in Second Language. At the B. A. Examination, A course, more than twice as many grace marks have had to be given in English as in Philosophy, and more than four times as many as in Mathematics. This state of things in regard to English means that the students are incapable of benefiting to the full by lectures in English. The first and chief aim of Professors here must be to see that students understand every paragraph of their English written text-books, and that the students apply themselves very diligently to thoughtful study of their text-books. The defect exists in the students as they enter the University. This is a question of school-teaching the students working knowledge of English, apart from the special terminology of any subject, is got or is not got in their schools. If they enter College habituated to writing unidiomatic English, their English remains almost incurably marred. A radical error seems to exist in the teaching of English in schools. English should not be taught in schools with the study of English Literature, or with Scientific Grammar and Philology as the ultimate aims. These ultimate aims inevitably determine the character of the study in schools. These have been the ultimate aims in linguistic study in Great Britain until recently, and we here have copied the system, not perceiving the difference in the situation in India. Whether the boy in school is looking forward to a University career and a learned profession, or only to a clerical career in a commercial firm or under Government, or to a career in some practical capacity, it should make no difference in his school study of English. The would-be student and the clerk equally require to begin with a fairly extensive practical and idiomatic knowledge of English. Having got that, the student is then ready for his lectures and his study of English Literature, the clerk is ready to begin his apprenticeship in his office. To speak more plainly, in schools, pupils must be taught with a view to *speaking* English and understanding it when spoken. The evil influence of copying the British system of studying languages will be understood when we remember that no student in Britain has now to speak Latin or to follow lectures in Latin; no one is expected to speak Greek; until lately scarcely any student of French or German looked forward to speaking the language. Yet we in India where English is to be spoken and heard spoken, largely follow the British system of learning languages. Until we teach pupils with a view to their *speaking* English, it seems unreasonable to talk about their being required to speak it among themselves during College hours. To effect this change, we must organise the teaching of English on some such system as used to be called Ahn's method. It was also advocated by the late Professor Blackie, Professor of Greek in Edinburgh. In its earlier stages, the teaching of English words and idiomatic phrases must be associated directly with things and actualities, not with corresponding Bengali words merely, or with kindred grammatical forms. The word "Am," for example, will be associated by repeated use, with the speaker, and not with the table *am*, *was*, *been* or the other table *am*, *art*, *is*, etc.; the words *one*, *two*, etc., will be associated with say, fingers, not with a table of figures. In the succeeding stages, phrases and sentences will be associated with the actual circumstances of the class room. A series of books on these lines could easily be prepared for the guidance of teachers. In fact, Appendix A of the new Bengal Education Code supplies the concrete matter for lessons such as are necessary. The new scheme for the teaching of English in Government schools in Bengal, while possessed of many advantages, should be considered carefully from that point of view. Will the postponement of the study of English for the first six years of school-life lead to a greater practical knowledge of English; or would it make English still more a subject that youths merely know, instead of an instrument they apply? The evil effect of the present system is seen particularly in mofussil students, who rarely hear English spoken. The age of Entrance students is too low. If practical mastery of the

English language is required from *entrants*, the age will necessarily rise ; the Entrance Examination will become the gate to ordinary employment, and to the professional Colleges like Seebpore College and the Medical College, the incongruity will then cease of those who are to be clerks and subordinate administrative officers spending time over Higher Mathematics, Logic, Higher English and Higher Sanskrit. There should be no artificial fixing of a minimum age for *entrance*. The standard of the Entrance Examination, and the age of *entrants* is considerably lower than in British Universities. Considering, however, that the Calcutta University Entrance Examination is conducted in a foreign language, it cannot be called easier than that of any British University. There should be no Entrance English Text-book. Students and teachers *will* labour over the allusions and linguistic peculiarities of any prescribed text-book rather than over the practical acquirement of the English language and the education of the minds of the pupils.

*Theological Degrees.*—The Calcutta Missionary Conference has already resolved to see whether a Central Board could not be instituted to prescribe Theological studies, and arrange for examinations. It was resolved that, before they should think of approaching the University, it should be found whether such Boards would be a success. There is nothing in the practice and constitution of the University here to prevent the institution of a Theological Degree with options to suit different classes of students or those of different tastes. For (1) the University already recognises the following languages which might form part of a Theological curriculum—Sanskrit, Arabic, Greek, Hebrew, Latin ; (2) It already prescribes studies in Moral Science and in Natural Theology. Under the latter head many very suitable text-books are prescribed ; (3) It already has a Lectureship on *Hindu Vedanta*, although the Syndicate, the chief guardians of our Lamp of Learning, strangely consented that this light should shine on one section only of the community. Our Chancellor and Vice Chancellor and the great majority of this Education Commission would be turned out from the University Lecture-room. Hence it could accept endowed lectureships in other similar spheres. The Barrow's Lectureship might be made over to the University ; (4) It recognises a Sanskrit College and it recognises another Institution, the Science Associations, which teaches only in a single department, hence it could recognise Theological schools. In Scottish Universities, Church History is now regarded as an optional Arts subject, hence we have precedent for admitting such a subject in our courses. One of the subjects of Biology, Physics, Chemistry, History, Botany, etc., should also be prescribed. The subjects for the B. D. Degree in Scotland are four, *viz.* : (1) Systematic Theology, including Biblical Theology ; (2) Biblical Criticism, that is of the authorship, authenticity and historical setting of the Books of the Bible ; (3) Church History (a portion) ; (4) Hebrew and Oriental languages. Three of these are already analogous (at least, in a rudimentary state) within our University. A considerable proportion of the graduates of Scottish Universities are needed as religious teachers. Why should the Universities in India not feel the need of encouraging a learned class of religious teachers, as also the encouragement of Theological study. The subject of Comparative Religion is the thorny subject in this department of study, and may be avoided for the present.



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## MR. A. C. EDWARDS, PRINCIPAL, PRESIDENCY COLLEGE AND REGISTRAR OF THE CALCUTTA UNIVERSITY.

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I have been asked to give evidence before the Commission on certain special points, *viz.* :—

- (1) The condition of the Presidency College now, as compared with its condition 20 years ago.
- (2) The present and past conditions of the Dacca and Patna Colleges.
- (3) The question of having a whole-time Registrar for the Calcutta University.

I shall be glad to answer, so far as I am able, any questions connected with the first and third of these points.

As regards the second point, as the Dacca and Patna Colleges are now under other Government Officers as Principals, I do not feel competent to express any opinion about them. I believe the Principal of the Patna College is coming to Calcutta in a day or two, and I would suggest that he might be asked to give evidence, if necessary, in connection with that Institution.

Turning to the Presidency College I find that in 1880-81 there were 344 students on the rolls as against 647 students on the 31st March 1901. To the latter number have to be added about 50 students from the Calcutta Madrasa, who attend all the First Arts lectures delivered in the Presidency College, and about 70 students from the Sanskrit College, who attend lectures in Physics and Chemistry, raising the total number of students undergoing instruction in the Presidency College in March 1901 to 767.

The cost of the college to Government in 1880-81 was R63,287 (exclusive of the Law Department) and in 1900-01 it was R67,761.

We seem to have one Professor more now than in 1880-81. It will be seen therefore that double the amount of work is being done now at practically the same cost to Government and with practically the same staff as in 1880-81, while it has to be borne in mind that whereas in 1880-81, there were no sections in the third and fourth year classes, in 1900-1901 there were two sections in all classes up to the B.A., and that the M.A. Courses are taught in nearly all the subjects now, while many additional Honour classes and Practical classes have been opened. Twenty years ago there were in the Presidency College Physical and Chemical Laboratories only. These have since then been very largely extended and much more fully equipped, and during the last two years a Geological, a Biological, and an Astronomical Laboratory with an Observatory have been added.

B. Sc. classes have also been opened in the college since 1901. To illustrate the comparative *results* of the work done in the college now and 20 years ago I append the following table, the latter part of which covers the three years during which I have been in charge as Principal—

University Examination.						Number of candidates sent up by the Presidency College.	Number of candidates passed.
<i>1880.</i>							
F.A.	.	.	.	.	.	101	49
B.A.	.	.	.	.	.	85	37
M.A.	.	.	.	.	.	21	17
<i>1881.</i>							
F.A.	.	.	.	.	.	77	31
B.A.	.	.	.	.	.	75	28
M.A.	.	.	.	.	.	30	9

University Examination.	Number of candidates sent up by the Presidency College.	Number of candidates passed.
1882.		
F.A. . . . .	129	54
B.A. . . . .	87	37
M.A. . . . .	23	18
1899.		
F.A. . . . .	100	64
B.A. . . . .	179	96
M.A. . . . .	94	50
1900.		
F.A. . . . .	93	64
B.A. . . . .	175	99
M.A. . . . .	85	39
1901.		
F.A. . . . .	124	67
B.A. . . . .	174	81
M.A. . . . .	72	35

It will be seen from this table that in the Presidency College there appears to have been no deterioration in the results of educational work in recent years. Judging from results of the condition of the college as a Teaching Institution is unsound now, it was still more unsound 20 years ago; if it was satisfactory then, it is still more satisfactory now.

As regards the conduct of our students in college I have nothing to complain of; indeed I may say, speaking generally, that it is as good as I could wish. I may mention that there is now an Athletic Club connected with the college, an annual contribution to which is compulsory for all students, while *gymnastics* are compulsory for all students of the first year class. To promote the moral welfare of the students there is the Eden Hindu Hostel attached to the college, which is now directly under the control of the Principal, while in accordance with the orders of Government all students of the college and of the two attached schools are now required to live either with their parents or *bonâ fide* guardians or in the College Hostel or other licensed hostels or messes.

Turning to special point 3 as far as the immediate present is concerned the question about a whole-time Registrar seems to me to turn on the qualifications of the individuals forming the University staff.

With a highly competent Assistant Registrar, like the present one, and with the existing staff, the Registrar is just able to carry on the work of the University with the time at his disposal after the discharge of his official duties as a Government Officer. He is, however, very hard-worked during about six months of the year. In view of the largely increasing numbers of candidates for examination each year it seems probable that the Registrar's work will ere long demand a whole-time officer.

Moreover, in my opinion the time has now come when in order to relieve the congestion caused by the vast and unwieldy masses of candidates that now present themselves for the annual Entrance Examination (this year more than 7,000) as well as on other grounds, there should be *two* Entrance Examinations held in the year.

The following table shows the number of Entrance candidates who failed in *English* in the last five years:—

Year,	Total number of candidates failed.	Failed in English.
1897 . . . . .	2,390	2,108
1898 . . . . .	2,724	1,870
1899 . . . . .	2,374	2,099
1900 . . . . .	2,448	1,871
1901 . . . . .	2,732*	2,290

\* In 1901, 4,239 candidates out of 6,135 would have failed if the Pass mark in English had been 40 per cent. instead of 33.

In view of these large numbers of failures in English (about 2,000 yearly) which are likely to be greatly augmented if the minimum pass mark in English is raised from 33 per cent. to 40 per cent. as has been proposed, and as in my opinion is most desirable, I think that Entrance candidates should only be allowed to appear in *English* at first, on a reduced fee. If they pass, they might go up six months later for the examination in the other subjects. If they fail, they might appear in *English* again six months later. This would save a great waste of time and labour both on the part of the candidates and of the Examiners. The certificate of having passed this examination in English would be useful to students, who contemplate entering Mercantile Firms, becoming clerks, etc.

The pass mark should be 40 per cent. and the age of the candidate at least 15 on the 1st January next preceding the First Examination in English, and the Examiners, or at least the majority of them, should be Englishmen. A special building for the University Examinations should, if possible, be provided, as it would be undesirable to interfere twice in the year with the work of colleges and schools by closing them twice for the examinations, and a portion of the Entrance fee might be set apart as a Fund to meet building expenses. Otherwise one of the half-yearly Entrance Examinations would have to be held in the vacation.

Were this course adopted a whole-time Registrar would be necessary. It is in my opinion essential that all the question-papers should be printed in England. As an alternative proposal to the above, a Final School Examination in English only might be held under University or Government supervision with English Examiners and a candidate might be required to have passed this before appearing at the Entrance Examination. Original composition in the form of essays or letters might perhaps be a sufficient test to be set under the superintendence of the Inspector of Schools and forwarded to the Examiners in Calcutta.

Referring to point 9 in the List of Subjects for consideration, I would suggest that as regards the Entrance Test Examination, as now required, it should be ruled that the Head Master or Inspector of Schools should certify in each candidate's Entrance application form that he has obtained 20 or 25 per cent. at least of the marks in each subject in such Test Examination. Also that no candidate should be admitted to the F.A. or B.A. Examination unless he produces a certificate from the Principal of his College in his application form to the effect that he has passed a Test Examination in the first and second or third and fourth year classes, respectively, or in special cases, at the Principal's discretion, in *one* of them and obtained at least 25 per cent. of the aggregate marks in each of such examinations. The numbers of the Syndicate might, I think, perhaps be increased to 12 or 15 members. In my opinion one-half or two-thirds of the Syndicate should only consist of persons engaged in practical educational work, and one-quarter or one-third should be heads of affiliated Educational Institutions.

I do not know why the teaching of English in colleges is so much less provided for now by the Government than it was formerly, as is indicated by the fact that in 1880 there were about 16 Professors of English in the Bengal Educational Service, whereas now there are about 6. Such a great diminution of Government support can hardly fail to cause a lowering of the standard of English in the country generally. In my opinion it is most desirable that more Professors of English and more Head Masters and Certificated Teachers of English from England should be employed in our colleges and schools. Compulsory vernacular education in the lower classes of schools seems also to militate against the improvement and spread of a knowledge of English in our Educational Institutions and in the country generally. With only some one-half per cent. I suppose, of the whole population possessing any knowledge of English, it would seem that the study of the vernaculars might be left to the other 99½ per cent.

In my opinion there ought to be a special Professor provided in the Presidency College and other colleges for teaching English *Composition* and looking over Essays, etc. With the existing large classes the present staff of the Presidency College are too hard-worked to do much in this way.

University Laboratories might be started in Calcutta, Dacca and Patna, where the students of the different colleges might work under their own Professors.

I do not think inter-collegiate lectures can be practicable, as college classes are already as a rule too large, discipline probably could not be maintained and friction between colleges would be likely to ensue. It has been intimated to me that the students of the Calcutta Madrasa, who now attend the Presidency College and have all the advantages of its lectures, etc., without paying any fee to the college, would prefer to have lectures of their own.

Fellows of the University, if elected, should be elected, I think, by the Faculties of the Senate, and not by the general body of graduates. I would suggest that all officers of the Indian Educational Service after five years' service might be made Fellows, if in Calcutta. Non-attendance at meetings of the Senate for two years might disqualify members.

Frequent changes in the University rules and courses of study are, I think, undesirable and are perhaps one of the causes of the deterioration in our B.A. Examination results in recent years.

A want of *thoroughness* seems to pervade the work of too many Indian students, who appear to be imbued with the idea that speed in work is equivalent to efficiency, and do not seem to care for the careful and scholarly treatment of a subject. This desire to cover the ground quickly, somehow, too often leads to slovenliness, shallowness and failure.

(I shall be glad to answer, as far as I can, any questions on any of the points under consideration by the Commission.)



## MR. W. H. ARDEN WOOD, PRINCIPAL, LA MARTINIÈRE.

### NATURAL SCIENCE.

The position of Natural Science in the University of Calcutta appears to me to be unsatisfactory in the following ways :—

(1) Proper provision is not made for a continuous course in science beginning in the school and continued in the University. This is essential if science is to take its proper place in education. (2) It is not recognised that practical work is the back-bone of all sound instruction in Natural Science. (3) The percentage of marks required for a "pass" by the University is not sufficiently high to ensure thoroughness of work.

(1) Most Universities and other bodies controlling education now recognise that the standard in Science proper for a degree can only be attained as the result of work in a continuous and carefully-arranged course. This necessitates a definite choice and sequence on subjects in the earlier parts of the course, and the Entrance Examination should determine the work done in the schools by the nature and standard of its test in Science. Hence we find the University of London recently introducing into its Matriculation a new subject—General Elementary Science—comprising the essentials of Elementary Physics and Chemistry, the necessary basis of all sound work in Science; and the Universities of Oxford and Cambridge introducing a similar subject into their Junior Local Examinations. Not only does the Calcutta University recognise the claims of Science less adequately than most other Indian Universities, but a policy distinctly retrograde is advocated in the report of the Committee recently appointed to enquire into the examinations held by the University. It is proposed to make Chemistry an optional subject in the First Arts Examination, and to drop altogether the small modicum of Science now prescribed for the Entrance Examination.

In my opinion a suitable course in Elementary General Science should be prescribed for the Entrance Examination and an intermediate course in both Chemistry and Physics for the First Arts Examination. After that those who preferred to drop Science could do so; those who intended to go on with it, would have laid a suitable foundation for future work, and a satisfactory standard could be looked for in both the B.A. and B.Sc. Examinations. As things are, I am afraid that the standard of even the new B.Sc. degree cannot be what it should be. The previous training of the students who read for it is represented by the slender modicum of Elementary Chemistry and Physics at present required for the First Arts Examination. In two years they have to go through a course of Applied Mathematics, a further course of Physics and Chemistry, and have, in addition, to take up two entirely new branches of Science. The range of scientific knowledge demanded from such candidates is inconsistent with a satisfactory standard. Other Universities have realised that, owing to the rapid progress of Science, it is no longer possible to demand from candidates for a degree a knowledge befitting a liberal education of more than two or three branches of Science.

The Calcutta University makes a demand that might have been possibly consistent with a reasonable standard thirty years ago, but certainly not to-day.

(2) The Science courses prescribed by other Universities show how unmistakably it has been recognised of late years that the real value of the study of Science is in direct proportion to the degree in which it is studied practically. Practical work is now insisted upon in quite elementary examinations.

The Calcutta University does not recognise the necessity for practical work in the Arts of course unless the student is reading for Honours.

Again in the laboratory the student gets away from words to things and I can imagine nothing more likely to do away with the reproach against the Indian student that he is a slave to the mere word, than the encouragement of this side of his education. It would be a genuine step in the direction of greater efficiency.

My own experience of students in practical work is that under the present system they show little dexterity or ingenuity, and are not really at home in the laboratory even as M.A. candidates. When they are allowed to use books they are slaves to them, and the result is that much time is wasted.

(3) The low percentage of marks required for a "pass" in the preliminary examinations of the University is a serious obstacle to the attainment of a satisfactory standard in the degree examinations. As an examiner in Physics and Chemistry in the First Arts Examination I constantly felt that candidates were passing who did not deserve to do so. But the standard which satisfied the University regulations rendered me quite helpless in the matter. My own experience as an examiner is that my feeling of satisfaction with a paper begins at about 40 per cent. of the total marks. The University is satisfied with quarter marks in Science. My experience of the written work of candidates in Science in the B.A. and M.A. examinations of the University is that it exhibits the defects one would expect to find in the work of students whose previous training has been insufficient and unsystematic. Even when it is fairly good, what impresses one is their power of getting up facts from a book rather than they have digested a knowledge of their subject.

#### TEXT BOOKS.

The practice of the Calcutta University in prescribing text-books is at variance with that of most other Universities, and tends to foster some of the most undesirable features of Indian University education. To order the teacher of a particular subject to teach it out of a particular book is undue interference, and a reflection upon his competency. If he is competent he will have his own teaching methods, and to tie him down to a text-book he may not like is to impair his usefulness in a way that is most undesirable. Again, the besetting sin of the Indian student is that he prefers using his memory to using his intelligence, and to give him a text-book and tell him that he will only be examined in what is comprised within its covers, is a direct invitation to him to learn it by heart, and a temptation to the teacher to discuss the text-book from his chair, instead of giving carefully prepared lectures upon his subject. The Calcutta University tells its examiners only to set such questions as can be answered out of the prescribed text-books: Judging from the examination papers this injunction seems often to be taken literally, and questions abound whose answers might be copied *verbatim* from the book, while questions requiring the exercise of the students' intelligence upon the subject-matter are infrequent. Had the University consistently enjoined on its examiners to set questions with the view of ascertaining if the candidates had worked intelligently at their subjects on the lines of a reasonably full syllabus, a much needed stimulus would have been given both to teacher and student. It may be admitted that there is a certain utility in mentioning one or more text-books in order to illustrate the standard of the course laid down in the syllabus, though one would think this sufficiently indicated by the examination papers of previous years. Possibly, too, there is a danger that if no book be prescribed, a bad book, merely manufactured to sell, may command the market on account of its cheapness. But this danger would not be a very real one if teachers were competent and exercised the influence they should. But the mention of several suitable text-books is a very different thing from the definite prescription of one: a practice which treats the teacher as incompetent, and the examiner as a person from whom the poor student is to be protected, and which, so far as I can see, has nothing to recommend it whenever there is a sufficient choice of really suitable books.

#### GEOGRAPHY.

The attitude of the Calcutta University towards another subject which may be treated as Science—Geography—is not in accordance with modern educa-

tional opinion. Most examining bodies in England have accepted the view of the Geographical Association that the main principles of Physical Geography must form the basis of geographical teaching, and we find in consequence that Geography is no longer regarded as a mere memory subject. Like other sciences it deals with phenomena, which are instances of cause and effect, and properly taught as the "how" and the "why" of man's relation to his environment, it makes an appeal to the intelligence, which as a memory subject, it never could. That the Calcutta University has not realised this chance in the educational position of Geography is apparent from the papers set in Geography at the Entrance Examination. It is true that Physical Geography is one of the subjects of examination, but it keeps strictly to itself and the other questions in Geography appeal to memory only. Again, in most countries, the final school course in Geography gives special attention to the geography of the home-land, and this is not less necessary in India than elsewhere, where it would naturally include, as well, a fuller treatment of the rest of the British Empire than is given to the parts of the world outside it. In view of the greater fullness of treatment of certain parts of the subject thus necessitated, it would be well to follow the lead of other examining bodies; and, while making the Geography of India, Great Britain and the rest of the British Empire the permanent part of the course, to set each year specially the geography of some part of the world outside the British Empire. The subject would then have to be re-defined for the Entrance Examination as "The Outlines of Physical Geography. The Geography of the British Empire, and of some part of the Earth's surface to be annually prescribed." "The mainland of Europe," "North America," "America south of Mexico," "Non-British Africa," "Asia outside India," will serve as instances of such portion of the subject as might be thus specially prescribed.

#### EUROPEAN AND EURASIAN STUDENTS.

The case of European and Eurasian students requiring University education is a special one. The higher European Schools keep their scholars until the age of 18 or thereabouts, and the result is that the University Entrance Examination is taken (when it is taken at all) by the students of a class below the highest. Hence the First Arts Examination practically becomes the leaving examination for students at the head of the school. But schools which endeavour to keep in touch with the best sort of school education in England have found the Entrance and First Arts Examinations rather a hindrance than a help, and have, especially of late years, avoided them as much as possible. They do not encourage the best kind of teaching, and the curriculum they impose does not allow sufficient scope for students of different aptitudes. Nor has the introduction of the Government High School Examination done anything to mend matters. The chief anxiety of its framers seems to have been to devise an examination that should be somewhat harder than the Entrance Examination. In other respects it certainly does no more than the Entrance Examination to encourage sound methods of teaching or to meet the requirements of a leaving examination for schools. The examination in English tends to encourage the study of notes rather than an interest in literature, and experience has shown that it is quite possible for candidates to pass the High School Examination who cannot express themselves in clear and simple English. In Latin the candidate who has merely learnt by heart the translations of the prescribed texts is able to pass. In Mathematics no provision is made for a purely elementary course, as distinct from a further course for students who have a special aptitude for the subject. There is no encouragement of practical work in the Science subjects. The course in History is not in accordance with the widely recognised principle that detailed work on a special period is educationally of more value than a bare knowledge of the outlines of English and Indian History. Other criticisms might be made. Nor has the general conduct of the examination been such as to inspire confidence in its results, or to make it conspicuously superior to the examinations of the University. It is recognised, on the other hand, that the Cambridge Local Examinations, while offering considerable latitude of choice among them of various subjects, do prescribe courses of study that are admirably adapted for European schools, and that their influence upon the teaching is, after making due allowance for the limitations of examinations in this direction, a wholesome one. Several centres for holding the Cambridge Local Examinations in India have now been recognised, and

these examinations seem likely to be increasingly utilised by the better sort of schools. Hence the students in such schools who will desire to proceed with University education on the termination of their school course will be those who have passed the Cambridge University Senior Local Examination, *i.e.*, students of the age of 18 or 19 who would otherwise have appeared in the Calcutta University First Arts Examination. No competent judge will deny the right of a student holding the Cambridge Senior certificate in corresponding subjects to be considered as at least equal in educational attainments to a student holding the Calcutta First Arts certificate. But such students are now under the disability of being only able to take rank with those who have passed the Entrance Examination. To satisfy the University regulations, they must, therefore, spend two more years in doing work of the same or a lower standard than that in which they have already satisfied the Cambridge authorities. This postpones for two years the beginning of the actual work for the degree, and seems a real and unnecessary hardship. Moreover considering that a minimum age of 15 seems to now contemplate for candidates admitted to the Entrance Examination, which we may fairly take as an admission that its standard is one that a scholar of 15 may reasonably be expected to attain, the hardship is still more apparent; for under these circumstances the Entrance Examination cannot be ranked higher than the Cambridge Junior Local Examination, which is also intended for students of about 15 years of age. If the Cambridge Senior Local Examination were recognised as equivalent to the F.A., and a choice of subjects is possible, which makes the difference in their respective courses merely nominal, the conditions would be much more favourable for students of European extraction anxious to proceed to a degree. There would be no break in the continuity of their school education; they could begin the special work of preparing for a degree, or begin the technical courses required for degrees in medicine or engineering.

The General Medical Council in England recognises that those who have passed the Cambridge Senior Local Examination in certain specified subjects have received a sufficiently good general education to enable them to study with profit the study of medicine, and there can be no good reason why students with similar qualifications should not enjoy similar privileges in this country. One is ready to admit that when it is possible for a student to complete a University course in Arts or Science before entering upon professional study so much the better. But questions of time and expense render this out of the question for the majority of European and Eurasian students. I feel strongly that the attitude of the University should not be a jealous or grudging one in this matter, but rather one of frank recognition of students with another hall-mark than its own for what they are and one of willingness to offer them every reasonable facility for availing themselves of the advantages which the University was intended to provide.

The number of students of European extraction who read for a degree is so small that it is not worth the while of most European schools even if they had the means at their disposal, to maintain the extra staff required for strictly University classes. The result is that such students have to join a college, such as the Presidency College, in order to continue their studies. They find themselves in a somewhat solitary position. The classes are so large that they cannot hope for individual attention from their Professors and they are practically without the advantage of association with others having the same ends in view. They are consequently left much to themselves and their situation is little favourable to healthy intellectual development. The best of the day is occupied in attending lectures, in copying out and "getting up" notes, and the chances are against their learning how to work and how to think for themselves. Something would be gained if such students could continue to reside in school while attending University lectures elsewhere. They would be under discipline, and they would be in the way of advice and guidance; for although the school could not undertake regular instruction in their University work, it would be quite possible to arrange that they should have tutorial relations with some member of the staff who would do for them what an Oxford tutor does for his pupils. I think that if it be contemplated to give deserving students of European extraction scholarships to enable them to pursue their University education at one of the existing Arts Colleges, the scholarships should be tenable conditionally on residence in a school where such arrangements could be made.



## SUPPLEMENT.

*Secondary Education in Scotland.*

The present satisfactory position of the secondary education in Scotland is due in great measure to the work of the Scotch Education Department, and to the changes which the last Universities Commission introduced in our four universities. Under the former conditions there was no Entrance Examination to the Faculty of Arts, and no organised supervision of the secondary schools, other than those under Government, while in all the universities it was found necessary to provide for the teaching of elementary work, in many cases to classes of over one hundred. Now there is a severe Preliminary Examination, which must be taken at the beginning of a student's course, and an immediate result has been the almost complete abolition of the Junior Classes, and a corresponding rise in the average work of the schools. A still more important change has been the institution of the admirable system of leaving certificate examinations, conducted by the Scotch Education Department, which is accompanied by an inspection of all the schools, public or private, which desire to submit their pupils for these examinations. The care that has been taken in the setting of the papers, and in the drafting of the schedules for the different subjects, and the growing value attached to the certificates by professional bodies, have caused these examinations to grow yearly in importance. Their influence in the improvement of school work cannot be overestimated. Alterations in the regulations are being made as the need for such becomes clear, and important changes have been announced in the last few weeks with the object of making these, more than in name, examinations that will be taken on leaving school, and of encouraging scholars to take the certificates in groups of subjects, instead of one by one. An effort is also being made to keep the members of the upper forms longer at school, a change which is much needed at any rate in some parts of the country, where boys leave school for the Universities at far too early an age.

H. S. CARSLAW, M.A., D.Sc. F.P.S.E.,

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*The Teaching of Geography.*

*Extract from a paper by Mr. I. B. Reynolds, B.B. Gilchrist Travelling Student, 1897. Diplored in Geography, Oxford.*

It is obvious that any branch of knowledge which is excluded from recognition by our universities lies thereby at a great disadvantage. Apart from the stamp of inferiority thus at once impressed upon it in public estimation, the lack of the stimulus of the more important examinations and their offered prizes will debar more than a few from entering on the prolonged study necessary for deepening and then extending a real knowledge of the subject, with the necessary result that it will too often be poorly taught, if taught at all, in our schools. For, while all teachers need not be specialists, even the most elementary work will suffer if there be not in the background a body of specialists on the given subject strong enough to influence and assist the teaching of it. This is what has taken place in the case of Geography. While certain geographical facts were taught in the schools on utilitarian grounds, there were so few qualified by special preparation to teach the subject scientifically, and so little idea existed of its educational possibilities, that it was left for any one to teach, and too often to teach anyhow. The children, bored by definitions and lists of names, grew up with a hearty distaste to the subject; while many educationists decided that a branch of study that exercised the memory only must be a poor affair, and quite unworthy of a place on the school curriculum. In Germany, during the first-half of the nineteenth century, a new light was thrown on the matter by the writings of Humboldt and Ritter, which first placed Geography upon a scientific basis. The casual connection between various physical forces and phenomena, and still more between these and the history of humanity, was brought out, and the subject, which had formerly

appealed chiefly to the memory, was shown to demand the constant exercise of the reasoning faculty to solve the many complicated problems to which it gave birth. Geographical chairs were established at various Continental Universities, especially in Germany, and by this means much has been done to develop different branches of the subject—as Meteorology, Oceanography, Geomorphology, Biogeography, Cartography, etc. At most of these Universities Geography can be taken by the students as their chief subject in the highest examinations for the Ph.D. and other degrees—a fact which accounts for the number of geographical societies abroad, and the general interest manifested in the subject. In Germany it is taught in all primary and secondary schools both for girls and boys, and special time is devoted to it in technical and commercial colleges. German maps have become famous all the world over, because the publishers can rely on a demand wide enough to allow of their sale at marvellously low price; while the large number of geographers in the country who are expert critics of cartography exacts a high standard of excellence, especially in school atlases and wall maps.



MR. H. STEPHEN, OFFICIATING PRINCIPAL, DUFF COLLEGE.

THE TEACHING OF ENGLISH.

I have been asked to say something about the teaching of English in the University. My acquaintance with the subject is practically limited to the B.A. and F.A. departments. But as little has been said I believe by previous witnesses on these departments, what I have to say may not be altogether irrelevant.

The teaching of English appears to me to be at present the faultiest part of our system, and the fundamental fault appears to me to be, so far as higher classes are concerned, the extremely limited range of reading prescribed. It was not always so small as at present, but has been reduced from time to time, and in the present Session has reached the lowest limit. I believe it has sunk in the history of the University, as most students now form such a narrow range of reading, it is impossible to obtain familiarity with the idiom of a language, and hence the admitted deficiency of so many Bengali students in this respect.

Now the extent of reading and style by teaching are both determined by the style of examining, and I am not aware that the University, though mainly an examining body, has ever done much to control the style of its examining; it has prescribed subjects for examining, but has left the examining itself entirely to the judgment and convenience of examiners. Now many subjects are so defined and limited in range that the examining can take only one form, but "English" is an exceedingly wide and indefinite subject, and when an examiner is directed to examine a set of students in English,—even this it should be on a set by prescribed English texts—the examining may take any one of ever so many different forms. There is more need, therefore, of regulation in English than in any other subject.

Now what strikes one with surprise is this—though English in this country is a foreign language, the examining and study have been allowed to take exactly the same form as at home in England. In England certain texts are prescribed from Chaucer, Shakespeare, Milton, Bacon and the like, and the examiner is told to examine upon these. He is somewhat at a loss what to do; for there is much difference of opinion even at home as to what examining in English should consist of, and there have been much controversy and protest in the Reviews on the prevailing methods. But in dealing with advanced classes, the examiner is aware that the candidates are sufficiently well acquainted with the normal modern language, and that there is no use of testing their knowledge of it. His examining, therefore, turns mainly upon obsolete words, idioms, allusions, collateral information and current criticism. In fact examinations in English seem often to have little or nothing to do with English. They are rather examinations in general information.

Now examiners here, fresh from English schools, have generally fallen into the forms and often reproduce the very questions and words by question papers set for English students, and often puzzle their brains, one suspects, to devise questions which will be most ingenuously irrelevant and least likely to have been anticipated by teacher and students, and no control has been exercised by University either by direction or model papers.

Now the style of examining determines the style of teaching. The texts prescribed are identical with those prescribed for the advanced classes in England; and often such that, for an Indian student, they have to be translated piecemeal into modern English, and this takes up much of the teacher's time. And then there are allusions,—a subject of life and death importance in examinations, however, remote and shadowy they may be—and then there are all the criticisms, good and bad, which may have been passed on the text from Dryden and Addison downwards—and there is collateral and promiscuous information of all kinds. Thus in teaching and examining on English, English itself is almost lost sight of.

It follows from this that the amount of reading for which there is time is far too small. The University has always been besieged with complaints nevertheless that it is far too great, and has yielded to complaints from time to time until the amount of reading has at last reached the limit of temerity. But what was really wanted was not a reduction of the amount of reading,

but a change in the style of examining, which render a great increase possibly in the amount of reading without increase of labour to the student—from his labour being directed into more profitable channels. Another evil of the system has been the encouragement of *cram*. This word has been so much abused that I suppose the very sound of it excites suspicion in most minds. It is often used for all exact study, exact teaching, and exact knowledge, and in fact for anything and everything which one does not like. Nevertheless, it is a very real thing and a very real evil. It has two legitimate meanings. In one sense it means committing to memory without any exercise of intelligence and for a temporary purpose information which we have no interest in, and try to forget as soon as the purpose is served. In this sense of the word we have had a great deal of *cram* in the study of English. In another and still more objectionable sense it means learning by rote phrase and formulæ which we do not even understand for the purpose of reproducing them in an examination. In this sense we have had a great deal of it in another subject which I may be allowed to refer to. Now in English much of the collateral and promiscuous information with which we are obliged to supply our students is of little value in itself, and is forgotten, perhaps rightly, as soon as examination is over. It has to be conveyed mostly in the form of *notes*, which have no connection among themselves—and have to be committed to memory without much exercise of intelligence. In most other subjects—in Elementary Philosophy and in History, Geometry and the like—the thought has more or less connexion and continuity, and the work of remembering is easier and involves more intelligence. Hence I find that students have much greater difficulty in writing relevant and grammatical answers to the kind of questions asked in English examination than in any others. It is not the difficulty of English composition itself as such—that is equally great or greater in other subjects, such as Philosophy especially, which tests a candidate's power of composition most, it is rather the incoherent character of the matter. It involves, I fear, too much of what may legitimately be condemned as *cram*. Another unfortunate tendency of the method is this: By making the student so dependent upon teachers and upon collections of notes, even in his reading English—the very department in which he should be most independent, if I may so speak, demoralised and rendered helpless and make to give up in despair, in many cases, the very idea of independent reading in English. An English book has come to mean to many a mere collection of conundrums suggestive of nothing but mystification—of class-rooms, notes, examinations, marks, and is regarded with a sort of shuddering aversion or as something quite beyond his reach. When asked why he does not read a simple English book or article, he too often answers with an air of helplessness that he has no one to explain the allusion. When we were boys we had no one to explain allusions, but we went on reading until the allusions began to explain themselves. The boy here, however, is taught to regard allusions and collateral information as the chief thing. Every paragraph, every sentence, is an enigma to him with an esoteric meaning which is the only thing worth having. If you tell him that the author means just what he says and nothing more, he looks at you with an air of hopeless incredulity. He has found it otherwise so often in the examinations. Hence he has come to regard an English book, even the simplest, as quite beyond his depth, and hardly ever thinks of reading outside his classes. Now, I believe, that the University might do something at least to remedy this state of things by making considerable changes in the style of its examinations, thereby rendering more extensive reading possible, and making the reading to be of a more spontaneous kind. The examining should turn less upon external, collateral and often comparatively irrelevant information, and should turn more on the substance of the books, and be such as to determine whether the candi-

words and names, as every student should possess. At present I believe that many do not even know how to use their dictionaries. For such readings, tales, histories and essays should be prescribed, tales of Hawthorne, Kingsley, Stephenson, portions of the histories of Macaulay, Hume, Froude—such poetry as that of Thomson, Campbell, Scott, Rogers, Crabbe, Mrs. Hemans, Whittier, Holmes—distinguished not for lofty genius but for purity and simplicity of style. The geniuses in Poetry are above the heads of undergraduates, and should be reserved mainly for the M.A., though I think that certain short texts should still be prescribed of a classical character in order to give the students some training in exact analysis and criticism, and guarding against the loose and superficial habits of reading. And as an examiner in English has such a wide and indefinite field to range over, he should be guided not only by directions of the Syndicate, but by model question papers issued from time to time. In this way I think that by avoiding irrelevant and unprofitable work, a much wider range of reading might be attained without any considerable increase in actual work and effort; and I think that the work could be much more wholesome, stimulating, and encouraging to the student than the present courses, and that his power of understanding and of writing English and appreciating idiom and style would be greatly improved, and above all his taste for English literature, which at present, I fear, is non-existent in a large proportion by our graduates.

## ELEMENTARY.

### PHILOSOPHY.

Dr. Mukherji has suggested that I should make some remarks on another subject, and if I am not trespassing too far on the time and patience of the Commission, I should like to do so. It is the study of what is sometimes called by the Benthamite designation of "Mental and Moral Science," but which I think is better described by the older and more familiar designation of "Elementary Philosophy." I may be allowed to explain the position and meaning of this subject in our University system. The present arrangement of course was introduced, I believe, about 1884, under the superintendence of Sir Alfred Croft. It is on the whole, I think, a highly judicious arrangement—superior, I think, to that in force in any other Indian University. It aims at admitting a reasonable amount of specialisation, while guarding against an anarchy of conflicting and incommensurable options. It holds on one course of study for those who prefer practical, concrete, experimental work, and another for those who may prefer literature and abstract thought, and admits of numerous options inside these courses. But to supplement mere memory work, each of the courses was weighted or ballasted if I may so speak, with a thinking subject. I mean a subject which involves a training of the understanding, thinking and reasoning powers, as well as of memory, the faculty which, among people of this country, it is commonly believed, least needs cultivation. In the scientific course the ballast was supplied of pure Mathematics. In the literary course, it was supplied by Elementary Philosophy, including short courses by Psychology, Ethics, and Principles of Science—a subject which involves memory as all studies do, but in which success as but from cram depends mainly on power of abstract thinking, understanding, and reasoning. It has sometimes been proposed indeed to make History an alternative for Philosophy, but this involves a misunderstanding of the plan and purpose of the scheme of studies. History is by itself an almost purely memory study. For this reason, perhaps, the originators of the scheme thought it insufficient even to stand by itself as an optional subject and ballasted it with Political Economy a subject which has no connection, exercises the thinking powers to a greater degree.

But unfortunately in Philosophy as in some other subjects the practice of prescribing a single text-book was retained. At first two books were prescribed, however, covering much the same ground and practically leaving a choice between them.

For several years the passes were better in the literary than in the scientific course. The dark period which has so exercised the minds of the Senate began in 1889, when only a small fraction of the students passed in this subject. The failure was unmistakably connected with a change in the text-book system. The older books had been dropped, and two new books prescribed for pass

without any choice—one in Psychology and one in Ethics, and with this began the sorrows of the Calcutta student, so far as this subject is concerned.

One of them was a meagre epitome of larger works made up largely of phrases and formulæ, which did not carry their own meaning with them, but assumed rather than conveyed an understanding of the subjects treated. In fact it was not meant to be used as text-books as used in Calcutta, *i.e.*, as a sufficient and exhaustive treatment by the subject, independent of a teacher, but only as a guide and hand-book to a professor's lecture.

The other book was of an opposite character, being a work of great literary merit and some philosophical originality, but very diffuse in style; really a commentary on the subject rather than an exposition of it, assuming knowledge rather than conveying it. I do not blame the Board of Studies so much as the system of fixed text-books. This is a subject in which there are no suitable introductory books for students and which cannot be properly learnt except from a teacher who is free to teach.

What then were teachers and students to do? I may give my own experience. I might either read the books to students or make the students read them in the class, which would of itself take up most of my time, and accompany my reading with running explanation so far as time would allow, but then the student would go away carrying nothing with him, none the wiser at the end of the hour. Or instead of spending so much time in reading what they could read at home, I might spend part of my time in dictating explanatory notes on words and phrases of the books, as if reading a classical author in an English or Greek class-room. But then the notes by themselves would be wanting in connection and coherence, and would therefore give little understanding of the subject, and the student would be obliged to "cram" them. Or I might set aside the books altogether, and proceed to give a connected and continuous exposition of the subject in my own words, and tell the students to read the books as well as they could for themselves in the light of my own lectures. Then the students would follow with the closest attention and write down as much as they could, and those who were good English scholars would make perhaps a pretty full and continuous written course on the subject much as English or German students make, omitting, perhaps, little of value in the books except their peculiar phraseology. Still the examiner would feel himself bound to follow the phraseology of the book very closely in his questions, and possibly in his valuation also, though as to that I cannot speak, and the student would be in danger, of falling between two stools—between the book and the teacher and would perhaps think that the safest method after all was simply to cram as much as he could of the phraseology of his book, whether he understood it or not.

Thus, however, eager the teacher might be to teach, and the student to learn both teacher and student were heavily handicapped, and real teaching and real study were hardly possible and as might be expected the number of failures was extreme. Of the student's answers, if I may speak as an examiner, many would contain not only phrases but half pages of the book in curiously technical language learnt by rote but with many verbal blunders and contradictions, showing that it was to him unintelligible gibberish. Others would be made up largely of notes, but without connection, and often contradictory or irrelevant, showing that they also were memory cram. Others again would be fairly well composed and reasoned essays in language which the student evidently understood and made his own but in such cases almost no influence of the book would be perceptible, showing that it had been only a useless encumbrance. The student had either thought out the subject for himself independently or had learnt it from his teacher.

At last the Syndicate understood the evil and introduced a new system which came into force in 1897. The course was now defined by means of syllabuses, and books were no longer imposed as before, but simply suggested, the teacher being left to choose his book, and use it as he thought fit.

The same plan was carried out in other subjects, and the University made some progress towards being a teaching University. There seems to be much uncertainty as to what a teaching University means. By many in London and by some here a teaching University is taken to mean a University which licenses teachers. This definition is too like a schoolboy's bowler to be satisfactory. But whatever else it means, it certainly means a University which allows and

encourages its teachers to teach, which is not possible so long as its studies are limited to learning a particular book by rote.

Nevertheless the result has not been all that was expected. Whether the students have learned more of their subjects or not (and I believe that they have learnt a great deal more from my own experience as a teacher, and from what I have seen of some of their answer-papers) still the number of passes has not greatly increased. This is partly due to the fact, I believe, that the roots of the old evil have remained. I am not an authority on question papers—I never read them; but I am assured that they are still sometimes set in the phraseology of a particular book which is often unintelligible, apart from its context, and that students are compelled to cram from the same books much as of old.

However this may be, a Committee of the Senate have recommended a return to the old practice of the fixed text-book, to be learnt by rote, and evidently think that if the text-book, sufficiently short and simple, this will be the means of securing the greatest number of nominal passes. This would, indeed, be the way to secure the greatest number of passes with the least trouble to teachers and least responsibility to colleges. But I leave it to the University Commission to judge whether this method of teaching Philosophy, if it be worthy of the name of teaching at all, be worthy of the Premier University of India. I have been asked to give an opinion also on the subject of Theological degrees. I see no reason why the Christian and any other religious community that may desire it, should not have its studies recognised by the University, provided it can organise them sufficiently—and whether in connexion with present colleges or new ones expressly for this purpose alone. I do not think, however, that any considerable part of any of the present B.A. course can be spared to make room for Theological studies. I do not think that of Church history can be substituted for political, because political history is necessary to an understanding of Church history. In the Greek course, indeed the study of classical Greek might be replaced by New Testament and patriotic Greek. But I do not know that much else in the present courses could be dispensed with. The new degree would have to be on the lines of the present M.A. degree, but might be extended, if thought necessary, to even a study of two-and-a-half years, instead of one-and-a-half years, which is generally sufficient for the present M.A., because the subject of Theology will be new to students, whereas the M.A. is only a continuation of college studies. With regard to the constitution of the Senate, I wish merely to say that I do not think well of the proposed principle of re-appointment. It is out of keeping, I think, with an office of this kind, of which the labour should and must be for love. If the re-appointment were by nomination, it would be suspected by the public of reducing the body too much to the position of a packed jury. If it were by election, it would open the door to canvassing and wire-pulling, and all the *hocus-pocus* of petty electioneering. The result would be, I fear, that the most desirable men would become indifferent to the office, or avoid it altogether; and it would be left to the noisy and enterprising and those who might have axes of their own to grind. If sufficient care were taken in the original appointments, if they were restricted to men who had not merely passed examination but had proved their capacity by serving the country in professional, official, and social capacities for a certain number of years, and if the conditions, tenure and forfeiture were made sufficiently stringent, then the term of office in most cases would be short, and though in all conscience, and if suitable men are to be obtained, it would be much better to let them go on as long as they are willing—the longer the better—without the humiliation and worry of re-appointments and re-elections, which would certainly make matters no better than before, and might make them worse, and the office should not be restricted to men who have taken University degrees. Learning has nothing necessarily to do with passing examinations, and many of the most learned men have never passed any.



सत्यमेव जयते



Mr. E. B. HAVEL, Principal, School of Art.

ART TEACHING.

1.—*Indirect Teaching.*

I am decidedly of opinion that the University through its system of education might do a great deal to promote art in Bengal. If the mental faculties may be developed through the eyes, and if, as Plato says, the appreciation of fair forms leads to the appreciation of fair action, then certainly this is a branch of the education of Indian University students which is very much neglected. Though public school boys in England and the undergraduates of Oxford and Cambridge have little direct art teaching, they are surrounded by æsthetic influences which must have an important effect on their mental and moral development. Many of the old colleges are extremely beautiful buildings, and their surroundings are in harmony with them. Compare Eton College and the playing fields with the Presidency College, Calcutta. In Calcutta and in most other places in India colleges and schools are generally dreary, desolate structures, in which all æsthetic feeling is ignored, if not outraged. I entirely dispute the theory which is generally adduced as an apology for the neglect of art in every department of State in India that good art is an expensive and more or less useless luxury. Good art, as a rule, is less expensive than bad art. A good artist, architect or art workman knows how to use his resources to the best advantage, but the bad one does not. Art does not necessarily mean decoration—an object or a building can be beautiful without any kind of decoration. It means a sense of fitness, order and beauty in all work. The greatest obstacle to the progress of art education and art industry in India, is the extremely vitiated taste of the majority of the educated and wealthy classes which constitute the principal patrons of art. It is, of course, very frequently the case in Europe that a well-educated and intelligent person is incapable of distinguishing between good and bad art, but the taste of the educated classes of India is, on the whole, far lower than that of the same classes in Europe. I believe this is largely due to the fact that in the whole Indian educational system all art influences are left out of account. It is hardly reasonable to complain that Indian students, for the most part, take a narrow and sordid view of the end and aim of their education, when throughout the whole system, everything is omitted which might tend to develop the imaginative and spiritual side of their faculties. When Indian students are placed in an atmosphere which is for them purely artificial, and are given the external form of a good European education without the spirit, the dry skeleton, and not the living body, it is not reasonable to complain if the product of the system is often stunted and undeveloped. I do not believe that this state of things is only a deplorable necessity. A great deal might be done towards developing the artistic sense of the students by making the surroundings of the colleges more attractive and beautiful. A well-kept flower garden may be very beautiful, though it is not necessarily a very expensive luxury. Neatness, care and taste in the up-keep of the college buildings and all their surroundings would tend to give the students the feeling for order, method, and fitness which is the foundation of all art.

There is no reason for the dull and desolate appearance which school and college class rooms now present. A comparatively small expenditure from the college library grants yearly would make the walls both attractive and instructive. There are now very many excellent and suitable illustrations of the finest examples of Indian and Oriental art published both in India and in Europe, which could be neatly framed and hung round the walls of the class rooms at very small expense. A special selection suitable for the purpose could easily be made by the Educational Department. Every drawing teacher now sent out from the Calcutta School of Art has some knowledge of ornamental design, and if encouraged by the college authorities he and his pupils could, with the expenditure of a few rupees in colours, relieve the monotony of the white-washed walls with hand-painted or stencilled decoration.

By such means not only would the æsthetic faculties of the students be developed, but more brightness and interest would be brought in to the routine of school and college work.

It is not a matter of small importance that the artistic taste of the average educated Indian gentleman is generally so undeveloped that he will often prefer the vilest product of European commercial art to good Indian work and will insist on the Indian art workman and artist copying the most debased European patterns instead of following his own traditions, which, as a general rule, are right. If the taste of the educated classes in India were raised, most of the difficulties in art education would disappear.

## 2.—*Direct Teaching.*

Direct art teaching in the Calcutta University is confined to elementary drawing, which is an optional subject in the Entrance Examination. It is very desirable that students should have Indian examples of free hand instead of the European which are now prescribed. This matter is being attended to, and a suitable set of free hand drawings will be published shortly. The question should be considered whether if the present courses of the kind can easily be re-arranged so as to relieve them of the overloading from which they suffer at present, it might not be possible to make drawing a compulsory subject. Drawing was made compulsory in the High Schools of Japan about 15 years ago. It is dangerous for India to remain 15 years behind Japan in matters of technical education. But of far greater importance to the future of art in India is the training of the engineers who in this country carry out nearly all the most important architectural works. It is my firmest conviction that the prosperity of most of the art handicrafts of the country depends upon the possibility of keeping alive the traditions of Indian architecture which still exist. Fergusson, whose great work on Indian Architecture is the standard authority on the subject, has expressed the same convictions, and they are supported by all the best living authorities on Indian Art. I cannot but regard it as a vital defect in the training of those who have to carry on the profession of both Architect and Engineer that no provision is made in the University curriculum for examining them in architectural design, especially in Indian styles. I cannot see any difficulty either as regards the teaching or examination in the way of introducing the subject in the curriculum for the B.E. degree. There are numerous illustrated works to provide text-books, and in the Government Art Gallery I am now arranging a collection which, when complete, will form a practical and sufficient illustration of all the most important Indian styles. I do not think there would be any difficulty in arranging for a series of lectures on the subject. Indian architecture is worth studying only from an engineering point of view. As a proof of this, I would mention that a few years ago a Prussian Engineer in Government employ was sent out to India especially to study the principles of Indian architectural design. This is only one of the many points in which the unique artistic resources of India of so much interest to other countries, are neglected in India itself. The point I particularly wish to bring forward is that while in Europe no one would dream of employing an engineer to design and build a palace or any important architectural work—in India engineers combine the profession of Engineer and Architect. It is therefore of vital importance to the future of art in India to recognise this fact, and to give engineers the training which will qualify them to carry out the work they are called upon to perform.

*Mr. J. VAN SOMEREN POPE, M.A., Director of Public Instruction, Burma.*

*3—Teaching Universities.*—I think it very desirable, that the Indian Universities should be teaching, and not merely examining bodies.

But I do not see how this change can be effected, unless all mofasal colleges are reduced to High Schools, and affiliation is confined to colleges in the cities which are the head-quarters of the respective Universities. This would be a very radical change; but it is one, that I think highly desirable.

If this were done, inter-collegiate lectures, University lectures, and that corporate college life, that go to form University life, would be possible.

Colleges would then have to be in themselves complete residential units, for Principal, Professors, and students: students could then be told off, as at Oxford and Cambridge to Tutors: and the work and discipline of the colleges could be maintained, alongside of and under the guidance of the University.

The present system in colleges, that makes the college building merely a set of lecture rooms, while the Principal and Professors live some miles away, and the students live in detached hostels, strikes at the very root of collegiate and of University life, and destroys both.

I cannot see how a University can fulfil its duties as a teaching body, when it has a number of colleges affiliated to it, which are in outlying districts. The mere appointment in these of teachers recognized by the University, will be a poor substitute for inter-collegiate, and University lectures.

I am not in favour of the proposal to make a list of recognized teachers, and to compel candidates for degrees to receive instruction in colleges, from teachers appointed or recognized by the University. This should be left to the college authorities in aided, and to Government in Government colleges, the University confining itself to the question of affiliation, which should be granted only on very definite and stringent rules. Oxford and Cambridge do not interfere with the appointment of Fellows, Tutors, and Lecturers, in the several colleges affiliated to them.

I am not of opinion, that the proposed supervision by the University will be effective.

*4—Spheres of influence.*—Affiliation should not be extended to institutions which might be provided for by other Universities. I should like to see Universities in Calcutta, Allahabad, Lahore, Bombay, Madras, Rangoon and Colombo, and affiliation confined to colleges at these head-quarters; I should like to see each University have its own local sphere of influence. In Burma, I feel sure, we can begin at once with a teaching University, on sound lines, and do for that Province, what might in 1857 have been done for India.

*5—Constitution of Senate.*—Senates are too large, and fellowships are too easily bestowed. Members of the Senate and Fellows should be men interested in education, and prepared to work for it, and men with good educational qualifications, and experience. It would be well to have a rule, that requires a member of the Senate to retire, who fails to attend a reasonable number of the meetings to which he is summoned.

I am opposed to election of Fellows; it only leads to very objectionable canvassing.

Fellowships should not be made terminable. If a good man is appointed, the longer he is a Fellow, and the more his experience ripens, the more valuable he is to the University.

*The Syndicate.*—This body should be a small one, and be composed of men with good educational experience, and of those actually engaged in education. The representation of colleges on it I do not think necessary: a good Syndicate represents the interests of education, and has no concern with the wants of individual colleges. A Syndicate should be independent, subject to the

general control of the Senate; but the latter body should be very careful, before it reverses the decisions of the former. A Syndicate should have a statutory basis.

7—*Faculties and Boards of Studies.*—I see no reason why every Fellow should be assigned to a Faculty: those on a Faculty should be men of experience, and experts. I should like to see Fellows elected by Faculties, and not by the general body of graduates.

8—*Graduates.*—But if Fellows are to be elected by the general body of graduates, a register such as the one proposed is very necessary, and it should be kept up to date.

I see no objection to the Universities granting honorary degrees, on recognized teachers and scholars from other Universities; but these honorary degrees should not be made cheap.

9—*Students of the University.*—The small percentage of passes is due very largely to the fact that—

- (a) affiliation is granted too easily, and without consulting Educational Officers;
- (b) a sufficiently high standard is not required at the time of affiliation, and no effort is made to have even the low standard maintained;
- (c) Colleges, and so-called colleges, are full of students whose attainments, especially in English, are too low to allow of their understanding college lectures;
- (d) the teaching staff and equipment of many affiliated colleges, are far below what is required;
- (e) in the schools, that prepare boys, in the pre-collegiate stage, there is a want of systematic, gradual teaching, and of that strict promotion, class by class, that is absolutely essential, if good, sound work is to be done—work such as will culminate in fitting a boy to enter on a collegiate life. There is a great deal too much laxity in this respect, that can and must be remedied by the several Education Departments, and the Universities working together. Schools that are an injury to sound education, and to sound discipline, should not be recognized; and Education Departments should not only have strict rules for registration, and for determining the grade of a school, but should see that they are carried out;
- (f) too easy recognition of schools up to the Entrance standard. The Universities should have strict rules, and firmly adhere to them, and consult the Educational Officers fully before accepting applications for recognition.

I am in favour of an age limit for the Entrance Examination. Where the question of the limit of age for the award of scholarships is concerned, the evidence should be of the clearest. I consider 16 quite young enough for a candidate for the Entrance: entering at this age he can pass the B.A. at 20. A limit such as this tends to secure better grounding during a candidate's school life.

10—*University teaching, and 11—Examinations.*—It is true, that many students begin their University course without sufficient knowledge of English to profit by the lectures they attend. I attribute this to—

- (a) Want of good teaching in the schools.

[I am a strong advocate for boys beginning English, in the form of conversation and composition, from the infant standard, and carrying it on systematically up to the Entrance class. I also urge the institution of a preliminary Examination to the Entrance, in English Reading, Dictation, Conversation and Composition, with a high percentage for passing.]

- (b) Schools being registered and affiliated as Anglo-Vernacular schools, that have not a staff competent to teach English.

- (c) The style of examination in schools, and in the Entrance Examination, which is based on grammar and text-books, rather than on composition and translation from the Vernacular.
- (d) The absence of any test in English pronunciation, conversation and composition, for those who wish to teach English.

On the subject of University teaching, and of the University curriculum, the Educational Syndicate, of Burma, of which I am an *ex-officio* member, have written so fully in the papers submitted by that body to this Commission, that I need say no more.

I am of opinion, that the vernacular languages of India and Burma should receive recognition in the University curriculum ; recognition up to the Entrance only is not enough.

I do not see how, under the circumstances, provision can be made for a School of Theology. It would be a dangerous experiment.

12—*Registrar and staff*.—I am in favour of a whole-time Registrar. The staff should be well paid, and above suspicion.

13—*Affiliated Colleges*.—I have already stated my views on this question.

The University cannot be too strict in this matter. It is an injury to education and to discipline, and it brings discredit on the University, when University education is undertaken by institutions totally unfit to do so. No High School should be allowed to raise its grade to that of a second grade, or of a first grade college, that has not a thoroughly competent staff, that is not fully equipped with all the necessary apparatus and appliances for teaching, that has not a good library, a good hostel, in which the staff resides, and is not generally in a fit state to undertake the duty. In ascertaining this, the Education Department should be fully consulted. There should be ample guarantee of permanency, and of the maintenance of efficiency : this should be enquired into from time to time. No considerations of any kind but the above, should be allowed to weigh, when questions of recognition, or the continuation of recognition by the University, arise.

A University concerns itself with the promotion of learning, and of scholarship, and not with providing Examinations for public or private service. Any representations made to a University, that the rules it frames, prevent boys from obtaining employment, should be rejected.

JOHN VAN SOMEREN POPE, M.A.,

*Director of Public Instruction, Burma,  
Fellow of the Calcutta University.*

CALCUTTA ;  
The 15th March 1902.



सत्यमेव जयते

*Memorandum of the evidence given by Mr. M. Prothero, Director of Public Instruction, Assam.*

Ideas of "Free trade in education" and "Non-interference with Private enterprise" ridden to death. Almost any body is at liberty to start a college or school and get it affiliated or recognized. The risk of starting schools with insufficiently paid and unqualified teachers or schools which will injuriously affect existing institutions is regarded as a secondary matter. At all costs, the fetish of private enterprise in education must be allowed to exert its injurious influence to the full on our educational system. The result is a superabundance of second rate colleges and schools. The pupils of these institutions, being insufficiently prepared, fail in their examinations, and a constant pressure is put upon the governing body of the University to lower the standard.

As an instance of this, I may refer to the difference in Sanskrit requirement for the F.A. and B.A. in the Calcutta and Lahore Universities respectively. The University has—

Behar High School, Bhagulpore.

Bamyachung High English School, Sylhet.

(1) uniformly neglected the advice of the local educational authorities.

(2) In affiliating new institutions it does not sufficiently look to their influence on existing institutions.

Educational institutions in the same town are generally too much on the look-out to catch each other tripping on the transfer rules to allow of combined lectures or other forms of co-operation.

*Remedy—*

To cut down the number of existing institutions and to raise their quality.

*Means to do this—*

1. Raise the minimum age for Entrance Examination to 15.
2. Raise passmarks in English 33 to 40 per cent. for Entrance.
3. Make the examination more colloquial.

Allahabad has a *vivā voce* in English. It is constantly observed that boys understand English when spoken by a native better than by an Englishman. If a *vivā voce* examination presents difficulties, at least English dictation might be managed.

4. Insist on greater strictness in colleges and schools in giving certificates of fitness to go up for the examination. These are given now much too easily. "A reasonable chance of passing" the examination is a most elastic term.

Some departments, *e.g.*, the Post Office, require the Registrar's receipt for the fee as a certificate of having sat for the examination and as a condition of admission. This swells the crowd of candidates, but many of them have no idea of ever passing the examination. I think the practice of requiring these certificates should be stopped, as it only increases the number of the possessors of the degree of "Entrance Failed."

M. PROTHERO.

17th March 1902.



सत्यमेव जयते



A NOTE PREPARED FOR THE UNIVERSITY COMMISSION.

PARAGRAPH 2.—*Historical Retrospect.*

1. Puri, Durbhanga, Navadwip, Bikrampur, Kalalipara in Jessore, Bhatpara and Mulajore in 24-Perganas are ancient places of learning where Sanskrit is taught gratis and the students generally get free boarding, learning one subject at a time. There are other such places, but they are not so noted.

PARAGRAPH 3.—*Teaching University.*

2. A teaching University is possible, if it should be conducted as far as possible on the lines of indigenous Sanskrit Education as imparted in our *toles*: (1) lectures on special subjects should be open only to those who go up for the M.A. and other higher examinations; (2) lectures should be free; (3) house and other accommodation should be afforded to the mofussil candidates on cheap terms; (4) some centres should be established for the work of the University Professors and Lecturers, such as Calcutta, Dacca and Bankipore; (5) at present it does not seem to be necessary to form a list of recognised teachers; (6) candidates should be required to attend the lectures to be delivered by University Professors at different centres and it would be not necessary for them to receive instruction from teachers appointed or recognised by the University.

PARAGRAPH 4.—*Sphere of Influence.*

3. Each University should have local jurisdiction, except the Calcutta University which being the premier University should have the privilege of affiliating institutions located within the limits of other Universities, specially institutions located within the jurisdiction of the Allahabad and the Punjab Universities would consider it as an honour to be affiliated by the Calcutta University.

PARAGRAPH 5.—*Constitution: the Senate.*

4. The number of Fellows should be limited to 120, exclusive of *ex-officio* Fellows and Honorary Fellows. It would be desirable to appoint a number of Honorary Fellows from amongst those who have worked for the University but who are unable to attend its meetings owing to physical incapacity. Fellowships should in future be conferred not as a compliment but on account of distinguished academic or literary qualifications. Fellowships should only be terminable by non-attendance or by the desire of individual members themselves.

There should be a register of graduates higher than the B.A., who should have the power to nominate four qualified persons, out of which one should be appointed a Fellow. To select one out of every such four nominations will, I think, serve as a check on canvassing.

PARAGRAPH 6.—*The Syndicate.*

5. The present number 11 seems to be suitable. Government is adequately represented, but the colleges specially the mofussil colleges are not, and cannot be so represented. I do not think it necessary to place the Syndicate on a Statutory basis.

PARAGRAPH 7.—*Faculties and Boards of Studies.*

6. The rule that every Fellow must be assigned to a Faculty ought to stand or else the position of a Fellow who has no place in a Faculty would be lowered. No outsider, whether a teacher or a graduate, should have any place in a Faculty. A Board of Studies should consist of members who are specially qualified in a particular subject, for the consideration of which it is constituted. The Faculties are generally equal to the duties assigned to them, but the Boards are not being indiscriminately constituted.

PARAGRAPH 8.—*Graduates.*

7. I have already stated that it is desirable that a register of graduates higher than the B.A. should be formed. Provision should be made for keeping it up-to-date. I think it would be expedient to charge a small fee for such a privilege. The election of Fellows should be by the registered graduates, but not by the Faculties which must be too limited to form an electorate of sufficient strength.

It may lead to confusion and cause disaffection to admit recognised teachers who come from other Universities to the M.A. or other higher degrees of a particular University.

PARAGRAPH 9.—*Students of the University.*

8. There should be test examinations as recommended by the B.A. Committee. In order to see that the colleges do their duty in all respects some high officer of Government or what is better the Registrar should be occasionally deputed. In Calcutta such institution as the University Institute is calculated to foster a genuine University life amongst the graduates. Government ought to promote such societies in other great towns both by advice and pecuniary help. Hostels serve the above purpose to some extent. There should be no age limit fixed for the Entrance Examination.

PARAGRAPH 10.—*University Teaching.*

9. Multiplicity of subjects taught at one and the same time is foreign to the genius of Indian, specially Hindu students. It is the cause of superficiality and it encourages cram. The immemorial custom of the indigenous Sanskrit Pathshalas is to teach one subject at a time and until a student is well grounded in one particular subject, he will not be allowed to take up another. It is not possible, however, in these days of hard struggle for life to follow that practice strictly. A middle course is desirable.

It is necessary to reduce the number and curtail the extent of the different subjects of study prescribed for the University examinations. I begin with the Entrance Examination :—

- (1) The scope of the Entrance Course in English should be enlarged, and more time found for its study. Speaking in English should be encouraged in the class-room and outside of it as far as possible. That was the practice during pre-University days.
- (2) Mathematics should be restricted to Arithmetic, Algebra up to simple equations, and Euclid Book I.
- (3) Geography. Only the outlines of the four quarters of the globe with some special knowledge of India are wanted.
- (4) History of India only and nothing else included in it.
- (5) A second language. The course as simple and small as hithertofore, with a Sanskrit grammar added to it.

No physical geography and no science primer.

There should be a bifurcation at the F.A. Examination, as is the case with the B.A.

There should be two groups :—

- (a) (1) English, (2) a second language, (3) History, (4) Logic.
- (b) (1) English, (2) Mathematics, (3) Physics, (3) Chemistry.

B.A. Course as at present.

The study of the vernaculars should be relegated to the schools and there will be ample scope for it under the new scheme of vernacular education. The University should only take cognizance of the vernaculars so far as to allow one of them to be a subject of study by such Entrance and F.A. candidates as intend entering some profession. This privilege may also be given to female candidates

as a concession by way of courtesy. None of the vernaculars of India has reached that degree of development and refinement, which would entitle it to be placed on a footing of equality with a classic. A vernacular course, however difficult, might be mastered in a month. The present system of translation, retranslation and essay writing in the vernaculars should be done away with, with regard to those who take up a classic for the second language, inasmuch as they have no time for reading and exercising themselves in the vernaculars. This system has been in existence for many years and I have had some experience as examiner in the working of it. But it has done no good to the student : rather the reverse is the case, as it has had the effect of diverting the attention of students from English and other serious subjects. It would be a retrograde step to abolish or emasculate the study of Sanskrit or other Indian classics for the sake of the vernaculars.

An Indian University without an Indian classic is an absurdity. The culture to be derived from classical studies cannot be compared with what little is obtainable from a vernacular. The educative effect produced by the former far outweighs any difficulty a student experiences to acquire a knowledge of the classics.

I would now speak a word about the study of Sanskrit under the Calcutta University.

Students spend eight years at the least in the study of Sanskrit before they appear at the B. A. Examination; four years in school and four years in college. The system under which they are taught is as bad as that under which they are examined. There is no subject of study in which the crammer and the key-maker are so much in requisition as *Sanskrit*. Sanskrit is a very elaborate and inflexional language. It cannot be learnt without a grammar; our students do not learn grammar, but get by heart whatever explanations they get from the key-maker. It is very bad that after eight years' study they get a mere superficial knowledge and forget anything they have crammed themselves with as soon as the examination is over. The majority of them pass through the leniency of the examiners. Sanskrit is such a difficult language that one single mistake in the declension of a noun or the conjugation of a verb will vitiate a whole sentence, nay, a whole passage. So if the candidates were examined strictly, there would be a higher percentage of failure in Sanskrit than even in English.

I think, therefore, that Sanskrit should be taught as it ought to be. It should be taught with the help of, and along with a good grammar.

Sanskrit grammars written in the vernaculars cannot be prescribed, not only because there are no such good grammars, but specially because no vernacular is co-extensive with the limits of the Calcutta University.

Sanskrit grammar written in English cannot be suitable text-books for our University candidates; for it is difficult to express in English rules of Sanskrit grammar with that degree of precision, completeness, impressiveness and clearness, as is necessary.

The existing grammars written in Sanskrit are, with the exception of Panini, confined to particular localities, and they are all very technical, minute and big-sized. Panini's great grammar is known and read throughout India, and it is the only grammar known to European scholars. But it surpasses all in point of abstruseness, technicality, minuteness and comprehensiveness.

Hence it is desirable that the University should get a Sanskrit grammar prepared by one or two specialists under the supervision of a Committee of experts. The language should be simple Sanskrit, as untechnical as possible, and the book should comprise only general principles of grammar with such special cases as are in common use. But the explanations should be given in English.

Such a compilation would supply a want felt by all in teaching Sanskrit, and giving the student a real insight into the structure and idiom of the language.

The candidates will begin to learn Sanskrit in right earnest when the system of examination is changed. With regard to this I would make the following suggestions :—

- (1) Two papers should be set in Sanskrit instead of one, as at present.
- (2) The first paper should have reference to the text only.

- (3) The second paper should contain questions on grammar and composition, and translation from English into Sanskrit.
- (4) Equal marks should be assigned to both the papers, i.e., 60 marks to each.

PARAGRAPH 12.—*Registrar and Staff.*

10. A whole-time Registrar should be appointed, so that he may devote his undivided attention to the increasing work of the University. It is not convenient to wait for the leisure hours of a Registrar, however able and highly placed he may be. A whole-time Registrar would be specially qualified for visiting the colleges and seeing that the rules laid down by the University are strictly obeyed. As an accredited agent of the University he is sure to do things better and his decisions and reports are likely to carry more weight than may be the case with any officer of Government. The staff of the Registrar of the Calcutta University at present seems to be an efficient one, so far as I have been able to judge.

The arrangements made by the Calcutta University for conducting the examinations and publishing the results are unexceptionable.

In conclusion, I would only refer to an opinion which is shared by many experienced and learned gentlemen who take an interest in educational matters.

In the interests of the students as well as of the University, it is thought desirable to pass candidates on the aggregate marks obtained by them, and do away with the minimum. The present system is considered as a two-edged sword which cuts both ways. This important subject is not mentioned in the printed note, but I beg to advert to it by virtue of the permission given in the first paragraph and on account of its great importance.

*The 17th March 1902.*

NILMANI MUKERJEE.



## MR. J. S. ZEMIN, PRINCIPAL, DOVETON COLLEGE.

With reference to the question of the education of the domiciled European community, in so far as that education ought to be regulated so as to lead up to the acquirement of University Degrees,

Education of the domiciled European community.

I would begin by saying that all European schools, with a very small minority of exceptions, find it necessary, for various reasons, chiefly financial ones, to regulate their course of studies according to the provisions of the Government European Code system. Now, this system has had a fair trial given to it for something like twenty years, with the result that it has not only not attained the very laudable object with which its well-meaning framers devised it, but it has even given rise to a very widespread feeling of discontent and dissatisfaction with it. To remedy this state of affairs, this Code of Regulations has, from time to time, been subjected to revision; but in spite of the revisions which it has undergone, it is still found to be very defective. The community, through its representative association, has, on various occasions, made representations to Government, concerning the weaknesses and defects of the Code. At the present time, a Conference is being held, under the auspices of Government, to investigate the subject; but it is feared that, as the community has not been allowed a representative at that Conference, many defects in the Code will remain untouched. As this system of education was originally devised with the object of giving the Anglo-Indian community a sound and liberal general education, so that its members might be the better fitted for the various services of the country, and since its object in this matter has proved a failure, seeing that the certificates of qualification granted under the system are not recognised anywhere, either by Government or by private employers of labour, as a sufficient guarantee of a sound and liberal education, the community are now urging that an English public school education with an attached system of recognised English Public School examinations, such as, for example the Cambridge Local examinations, may be substituted in place of the Government Education Code system and its examinations. The Cambridge Local Examinations are now to some extent recognised by the University of Calcutta; and lads who have passed the Cambridge Senior Local examination, are permitted to appear at the F. A. examination of this University. In the Madras University, I understand lads who can produce a certificate showing that they have passed the Cambridge Senior Local examination are permitted to appear at the examination for the Degree of Bachelor of Arts. I am strongly of opinion, after a careful comparison of the F.A. regulations with the educational demands of the Cambridge Senior Local examination, that our University ought to conform with the privilege given by the Madras University. Already La Martinière College, Calcutta, and St. Paul's School, Darjeeling, are working under the Cambridge Local examinations system, and not under the regulations of the Government Code for European schools, and I am arranging that the Doveton College shall do the same. I learn, too, from the sense of a very large public meeting of the domiciled European community, held in the Dalhousie Institute on the 17th instant, that the community at large is in favour of the abolition of the Code system and its examinations, and the substitution in their place of English Public School education and the Cambridge Local examinations. If the University of Calcutta could see its way to confer the favour of recognising the Cambridge Senior Local examination as the equivalent of the F.A. examination, and the Junior Local as the equivalent of the Entrance examination, it will offer a distinct boon to the whole domiciled community, and will create a new impetus to the acquirement of University degrees, which hitherto have been but meagrely taken advantage of. This lack of attention to the degrees of our University by the Anglo-Indian community is due to two causes: (1) the range of subjects as laid down in the European Education Code and their limitations do not exactly fit in with the range and limitations of the University curriculum. This has the effect of handicapping Anglo-Indian boys more or less, throughout their training, so that when they reach a certain age,—say 15 years,—when that is to

say, they ought to be ready for Matriculation they are not as a rule fit for it; and the study much longer for such Matriculation would involve expenditure of money, which the parents in many instances cannot afford; and (2) grants-in-aid to European schools are made expressly under the condition that such schools should in all respects conform to the regulations laid down in the Code; and this condition absolutely debar the majority of European schools from encouraging their pupils to proceed to the University examinations, as nearly all of them work under the Code system. The Cambridge system would, on the other hand, directly lead to the University by easy and imperceptible stages: and if the University would consider the Senior Local as the equivalent of the F.A. examination, the question of the Anglo-Indian community and University education would forthwith be solved. There is another matter in connection with the question of the University education of Anglo-Indian students to which I would like to draw the attention of this Commission. I refer to a standing rule of the University, under which no candidate may take the M. A. degree in English, should English be his mother-tongue. I fail to see what reason the framers of the rule had for introducing so invidious a limitation—a limitation that has pressed with undue severity on Anglo-Indians, and had the effect of keeping back a number of students from proceeding to M.A.; is it seriously contended that English is too easy a subject for the Anglo-Indian? Over and above paying a very doubtful compliment to the sterling literature of England, so vast and so all embracing—the objection exists only in fiction. Even granting that English is easy to the Anglo-Indian, still it is not easier to him than Mathematics is to the mathematician, or Latin to the linguist, or History to the historian; but while these latter are allowed to prepare themselves in what is their *forte*, it is the Anglo-Indian alone who may not prepare for the examination with equal liberty to take up his pet subject. The strange part of the matter is that these same students are permitted to take honours in English at the B. A. examination; it therefore seems all the more inconsistent and absurd to cut short their study in the language by an arbitrary ruling, and to force them to another subject, not half so inviting, and in which they have a poor chance of excelling. It has been ascertained that the other universities of India have no such absurd limitation. I therefore think that the University should recognise these considerations, and remove the disqualification frivolously imposed, for no argument can support it.

With regard to a teaching university I am of opinion that for the highest examinations of the University a teaching university would be advantageous. This would be a cautious beginning and present the smallest number of practical difficulties. Its extension to other examinations may be considered hereafter in view of any success it may achieve. With the many hostels now in the city it would not be a difficult matter for mofussil students who are candidates for the higher examinations to reside in Calcutta and pursue their studies under professors and lecturers appointed by the University. The colleges that now maintain for example M.A. classes would find themselves liberated from an abnormal output of teaching power and financial expense, both of which may with better reason be applied to the strengthening of the F.A. and B.A. classes.

I am of opinion that it is both possible and expedient to form a list of recognised teachers. Eligibility for enrolment in this list would be determined by high qualifications, both academic and professional. Of course the compilation of the first list would be a matter of some little delicacy, as the interests of existing professors and lecturers would have to be safeguarded: but the difficulty would not in my opinion be insurmountable. If such a register were opened it would follow that candidates for degrees would receive instruction from teachers appointed and recognised by the University.

I do not deem it necessary that the influence of each University should be circumscribed or that each should have a distinct sphere of influence. Unless it can be clearly shown that the existing arrangement has been productive of inconvenience or harm, I would not recommend any change in this respect.

Regarding the number of Fellows comprising the Senate, it appears to me

The Senate.

on the whole immaterial whether it be large or small; for the experience everywhere is that eventually the actual work of all committees concentrates into the hands of the few. Leisure, ability, and inclination must combine before a working member is produced. It is not to be expected that every member of the Senate will possess the three qualifications, and the absence of any of them is sufficient to counteract the presence of the other two. In all future selection of Fellows care should be taken to discover that the necessary qualifications exist. A Fellowship ought in no case to be conferred as a matter of personal compliment; but there seems to be no reason why eminent members of the learned profession who are not engaged in actual teaching should not be admissible as Fellows. With regard to the existing Senate, I think that a judicious weeding out may with advantage be initiated, whereby habitual non-attendance at meetings and well-established indifference to University work should be considered sufficient reason for the withdrawal of Fellowships where these have already been conferred. I would have Fellowships conferred for life and not for a term of years except in cases where non-attendance at meetings and lapse of interest in the working of the University are well-established. In the interest of all first grade colleges and for their unification I deem it expedient that their Principals should be appointed Fellows and that it should be made convenient for them to attend a certain number of meetings of the Senate annually. The election of Fellows by graduates of the University should be discontinued, as the system does not safeguard the interest of minorities, and the canvassing which attends such elections does not exercise the return of the best candidates. By the interests of minorities I mean that under the present system of election by graduates an Anglo-Indian candidate or a Muhammadan candidate stands no chance of getting returned. For similar reasons I would also deprecate the election of Fellows by the Senate. I would leave all elections to Fellowships in the hands of the Government as at present.

I am not for any change in the constitution of the Syndicate. I far prefer

The Syndicate.

a Syndicate elected by the Senate to one constituted by statute. I think though that the term of tenure of office may with advantage be extended to two or three years.

On the whole the Faculties and the Boards of studies, as at present constituted, are equal to the duties assigned to them; but there is no reason why they

Faculties and Boards of studies.

should not benefit by the assistance of teachers and graduates who have distinguished themselves in the special subject of any Faculty.

In the F.A. and B.A. examinations, in addition to the minimum per-

Certificates.

centage of attendances at college lectures, college authorities should be asked to certify that there is in their opinion a reasonable prospect of each candidate passing his examination. The University should insist on annual examinations being held in the First and Third Year classes and on text examinations in the Second and Fourth Year classes, to decide promotions or presentation as the case may be.

With regard to the fixing of a minimum-age limit for the Entrance ex-

Age limit.

amination I have no hesitation in saying that it is most desirable that such an age limit should be fixed but I am more than doubtful whether under existing circumstances any useful purpose would be served by fixing a limit, inasmuch as there are no means of obtaining irreproachable evidence of the age of Indian students. The only persons whom such a limitation would affect would be Anglo-Indian students, who would therefore, come to look upon it as a hardship.

In the matter of the standard of qualification in English to secure a pass

English.

at the Entrance examination, I have no hesitation in saying that some radical change is imperatively called for. There is no doubt that few who pass the Entrance examination have a sufficient knowledge of English to understand the text-books in that subject appointed for the F.A. examination or to follow

the lectures delivered on the various subjects comprising the F.A. course. In order that a uniform standard may be observed in all schools, it is expedient to retain a text-book; but I think that in the examination itself an undue advantage is given to the prescribed selection by these being assigned to answers on the text-book, 120 marks out of 200. I would equalise the values of the two papers, make it compulsory to pass in each paper, and make 40 per cent. the minimum pass marks in each of the papers, instead of 33 per cent. on both papers together as at present. If this be thought too severe, as probably it will, then perhaps it would be possible to devise a preliminary Entrance a few days in advance of the main examination; and all those who would fail to pass in simple dictation and a few lines of original composition should be ruthlessly rejected. But whatever be the way in which it is carried out, there can be no doubt whatever that the examination in English as at present conducted is a farce, pure and simple.

The subjects of History and Geography have attained almost unmanageable proportions in the course for the Entrance examination; for it comprises no less than six books. Not infrequently, too, the language in which the Histories have been written has been on the whole higher than the standard of the English text-book, with the result that the Histories have been for the most part unintelligible to Entrance students. The result is that these have recourse to handbooks and guides, and the knowledge of History with which they appear at the Entrance examination may fairly be represented as the temporary memorising of disconnected facts. When it is remembered that in his subsequent University career a student may take the highest degree of the University, without even again touching upon English and Indian History, it seems disastrous that he should go through life furnished only with such fragments of English and Indian History as he memorised for the Entrance examination. I would advise that in the English course of the F.A. and B.A. examinations, histories of literary merit should yearly be prescribed. An adequate knowledge of the histories of these countries would tend to create a loyal and contented people. Meanwhile the scope of the subject in the Entrance examination should be contracted and such text-books should be appointed as the average student may understand for himself.

The present rules of affiliation afford sufficient guarantee that colleges are up to the mark at the time of affiliation, but there seems to be no means whereby they may be kept up to the mark after affiliation. With this view a regular system of visitation and inspection of colleges should be undertaken by the University.



## Answers

BY

MAHAMAHOPADHYAY HARAPRASAD SASTRI, M.A.,

*Principal, Sanskrit College, Calcutta.*

### Para 2. Historical Retrospect :—

Before the introduction of English Education in Bengal, the Pandits, Maulavis and Munshis had the entire high education of the country in their hands. The Pandits taught the Brahmanas, Vaidyas, Varna Brahmanas and Jogis. They imparted knowledge of Sanskrit Grammar, Literature, Law, Philosophy, Medicine and Astronomy. Some Kayastha families learnt Sanskrit but they confined their attention to literature alone. The majority of the Kayasthas, however, with a few Brahman families received their education in Persian from Munshis who were either Kayasthas or Mahomedans. The Maulavis imparted education in Arabic to Mahomedans only. Very few Hindus learnt Arabic.

Wherever there was a large Brahmana or Vaidya population there were *tols* taught by Pandits, each Pandit confining his attention to one subject only. The Pandits received no fees from their pupils whom they gave free lodging and boarding at their own houses. They depended for their livelihood on honoraria received from wealthy and well-to-do people who invited them at their houses at *shrādhhs*, at the consecration of tanks and temples, and at religious ceremonies and festive occasions, and from rent-free lands which used to be freely bestowed by the Mahomedan and Hindu governments; but such grant of land has been stopped at present. The number of *tols* at any locality varied according to the strength of the higher classes in it.

The condition of Sanskrit education in Bengal about the year 1835 is given, though not fully, in Adam's report on Vernacular education in Bengal, in which the names of leading Pandits are given, district by district, with much interesting information about their *tols* or colleges. There were *tols* almost in every large village.

Every Pandit who had received a title had the power of conferring a title and unless one had a title one had no right to entertain students. Titles were conferred after an examination. This was known

as the *Salākā parīkshā*, examination at the point of the needle. A MS. used to be brought before an assembly of Pandits and a needle passed through the MS. The first page not pierced through by the needle used to be given to the student and he had to explain it and questions used to be asked by the assembled Pandits on the subject-matter of that page. If the student acquitted himself well, he obtained a title from his teacher and the title was recognized by the assembly. But no one had a right to a title unless and until he finished the usual and traditional course of studies prescribed in the subject he had taken up.

Latterly, however, the Examination at the point of the needle was discontinued and a student who did well in disputations and who finished his course of studies had a title conferred on him.

The student received his tuition free and his board and lodging free ; but at the conference of a title he had some expenses to undergo. He had to invite a number of Pandits at his teacher's place on the occasion, feed them at his own expense and pay them a small honorarium from his own pocket.

But a change came over the spirit of High Education from the year 1858. The establishment of the Calcutta University introduced High Education in English, and the facilities for getting appointments under the State and for entering learned professions afforded to students who received English education soon made English education popular in the country. The *tois* were deserted and English Colleges and Schools flourished. In the immediate neighbourhood of English Colleges, *tois* were completely stamped out ; but they still flourished in the outlying districts. The University was, in the beginning, very unwilling to recognise Sanskrit as a part of general culture, but after a decade or so, however, it recognised Sanskrit as a second language for the generality of students, for it was thought that the Education of a Hindu gentleman could never be said to be complete without some knowledge of Sanskrit Literature and of ancient Indian life.

The institution of the Sanskrit Title Examination in 1881, and the first and second Sanskrit Examinations later on revealed the great demand for Sanskrit Education, that there still existed in the country. In the three examinations in the present year, there have appeared nearly 4000

students from the various parts of the territory under the government of Bengal, and it is expected that the number will go on increasing. It would not be out of place to state here that the bulk of these candidates come from families who formed the old gentry of the land with gentlemanly instincts fully developed and who are inspired for generations by a thirst of knowledge for its own sake. They have not yet learnt to value knowledge for the pecuniary return that it brings to them. For, if they did so, they would not have flocked to *tols* to receive an education which opens no career for them in life.

Other Provinces also have instituted similar examinations. In the Punjab, the University has undertaken it, but not with much success. In 1898 the proposal of an Oriental Faculty was vetoed by the Senate of the Madras University. In the North-western Provinces, the examinations under the auspices of the local Government are gradually gaining in popularity.

The ancient places of learning are known as '*Samajas*'. A *Samaja* is not confined to a single town or city; because the Pandits were averse to costly city life. They lived in villages, on their own rent-free lands and taught their pupils at their own houses. The number of pupils varied according to the learning and reputation of the Pandit. Communication was difficult in those days, hence villages, which could be easily communicated with, formed into a *Samaja*. The *Samajas* in the neighbourhood of Calcutta have disappeared. Bhatparah is the only place in that neighbourhood where there are some Pandits, very learned in their respective subjects. But at a distance from Calcutta the *Samajas* still hold on, though English education has greatly encroached upon the sphere of their influence and usefulness. Of the *Samajas*, Navadvipa is still the largest and the most respected. It includes within its sphere of influence the *tols* of Burdwan, Nadia and a part of Hooghly. The Moorshidabad *samaja* includes the district of Moorshidabad and the neighbouring sub-divisions of other districts. Bikrampur *samaja* includes Dacca and parts of Faridpur and Maimenshing. Bakla *samaja* includes nearly the whole of Barisal. Kotalipád *samaja* includes the southern parts of Faridpore. Durbhanga *samaja* includes the districts of Muzafur-

pore, Durbhanga and parts of Motihari. Khanakul-krishnagar *samaja* includes parts of Hooghly, Howrah and Midnapore. Khanbeida *samaja*, famous for its astronomers, includes the greater part of Midnapore. Bishnupore *samaja* includes Bankura and Birbhum. Bhagalpore, Patna, Cuttack, Puri and Balassore have also their *samajas*. Comilla is a *Samaja* which includes Tipperah and part of Noakhali. But all these *samajas* recognized Navadvipa as the greatest *samaja* and students after completing their traditional course of studies often came to Navadvipa to receive the last finish in their education there. Such was the large concourse of students who flocked there that the Pandits were not in a position to feed them and they had to live at their own cost and a money grant was made by the Muhammadan Government to help the students.

There were some families, however, who would never send their students to Navadvipa and to one of these the present witness has the honour to belong and his ancestors had the entire Nyāya education of 24 Parganas, Hugli, Howrah, Khulna and Jessore in their hands. The *Samaja* to which they belonged has completely disappeared.

Since the establishment of the University, however, several opulent Hindu noblemen have endowed various colleges for Sanskrit learning. Of these the Tagore College at Moolajore is doing excellent work; the Raj *tol* at Burdwan and the Arnakali *tol* at Moorshidabad support a large number of Pandits and pupils. The Viswanath *tol* at Chinsurah supported by a large legacy left by the late Babu Bhudev Mukerjee is a flourishing institution.

### Para 3. Teaching University.

How the University can undertake the teaching of thousands of students distributed over a vast area is a problem which does not admit of an easy solution. In a city like Calcutta the University might found chairs for Science :—Chemistry, Physics, Botany, Geology and so on, with extensive laboratories and impart practical instruction under its own supervision. It may also found chairs for such subjects the teaching of which will not be undertaken by other colleges, for instance a chair for Pali, Greek or Latin. But these chairs will benefit Calcutta only. The colleges at a distance from Calcutta will derive no benefit by the foundation of these chairs. Will the university have funds enough to found chairs at every great centre of education? It may, however,

appoint peripatetic professors who in a term will lecture at five different centres.

In an area so vast as come under the influence of the Calcutta University, the drawing up of a list of recognised teachers is beset with great difficulties. In certain subjects the list may with some care be prepared from the successful lists of Doctors or Masters in that subject. But in oriental languages there will always be in the country a very large number of men better qualified than the masters and doctors of the university in oriental languages. To exclude such men would be cruel, to include them will make the list too unwieldy. In scientific subjects alone such a list would be of great value.

**Para 4. Spheres of influence.**

For administrative purposes it is better to fix local limits within which the Universities may be authorised to affiliate institutions. It is inconvenient and expensive to open centres at distant places for a small number of candidates.

If the Universities are to be constituted on the same principle and if they are to teach the same subjects in the same way there is no necessity for going beyond local limits, but if one University is to distinguish itself in Science, another in Philosophy and the third in Linguistic studies, overlapping influence becomes not only desirable but necessary.

**Para 5. Constitution : the Senate.**

The number of fellows in the Senate should be limited. Considering the vast number of subjects taught in the various colleges affiliated to the University and the fleeting character of its European members, the number should be a little more than hundred; hundred and fifty will not be considered as too large. A much higher standard of qualification should be prescribed for appointments as fellows, and fellows should be made to vacate their seats for continued non-attendance.

The present method of election is defective. It gives every M. A. a voice at the elections, the consequence is, that junior votes swamp the senior votes. An electorate may be formed from amongst recognised teachers and graduates of some standing.

The tenure of fellowship should on no account be made terminable. Making a fellowship terminable means to turn out a learned man from the Senate when he is just becoming useful. It may be said that a useful man may be re-elected, but there is an even chance of his not being re-elected. A

life-member is likely to take a life-long interest which cannot but be very deep.

**Para 6. Syndicate.**

The number of the members of the syndicate as fixed at present seems to be adequate. The government and the colleges at present are not adequately represented. The Director should be *ex-officio* Member of the Syndicate though the Director has always been elected, yet he should not depend for his seat in the syndicate on the good sense of the fellows. Two at least of the Syndics in Art should be representatives of the colleges. It is not desirable to place the Syndicate on a statutory basis.

**Para. 7. Faculties and Boards of Studies.**

The present constitution of the Faculty is faulty. Members of the Senate only can be members of the Faculty. The Art Faculty is composed of 149 fellows. A matter is decided in the Faculty. The same matter comes on for discussion at the Senate. All the members of the Faculty attend with a few lawyers, and medical men in addition. The same debate takes place twice over. This is sheer waste of time. If the electorate as proposed in Para. 6 be constituted into a Faculty, this difficulty may be obviated. The electorate will have a voice in the University and thus a healthy public opinion will be created.

The constitution of the Boards is faulty. No special qualification is required for a seat on a Board and as a matter of course expert votes are often swamped by non-expert votes. This difficulty may be obviated by fixing a qualification for a seat in each Board.

**Para. 8. Graduates.**

A register of Graduates is necessary, if the electorate as proposed in Para 6 is to be formed. There is no harm in conferring the M. A. or other suitable degree on recognised teachers who come from other Universities. I will propose to extend this concession even to Oriental scholars who would be recognised teachers.

**Para. 9. Students of the University.**

No age limit should be prescribed for candidates for Entrance Examination.

**Para. 10. University teaching.**

The value of University teaching has greatly deteriorated for want of written exercises. The professors lecture, the students take the notes down, learn them by rote, and attempt to pass. Not a single exercise is given in a term: In some Colleges there are annual examinations held, in others, they

are not held. So at the examination hall the students are at a fix. Some of them do not know how to express their ideas in decent language and their spelling is awfully bad. All this is owing to the want of habit of writing.

The value of University teaching has much deteriorated owing to the fact that superior men find much better prospects in other departments of Government and other walks of life, and the teaching staff is composed of poorly paid and therefore generally second class men. The consequence is they cannot make the subject interesting to the student. They cannot lead the students to self-help by showing the way and by explaining the principle and thus trying to develop their minds. What they try to do is to give to the students ready-made notes to be taken by *rote*. These are the two crying defects of the University teaching.

*English* :—At schools students get exercises which are corrected and returned by the masters. At schools students do keep up the habit of writing. If that habit be kept up at College, it would be all right. But as a rule, it is not kept up and students at Colleges deteriorate and they generally forget what English they learnt at school.

There are two remedies for this : one is easy but not feasible ; and the other feasible but hard to apply. One is that the medium of instruction should be the Vernacular of the province—A natural remedy and an easy remedy ; but not feasible under the peculiar circumstances of the country at present and under the low condition of scientific education. Scientific instruction will for a long time to come have to be imparted in English.

The other remedy in raising the standard of efficiency in English teaching at schools and making exercises compulsory in Colleges. Higher percentage of marks should be demanded for passes in the Entrance. But in that case the complexity and multiplicity of subjects for that examination will have to be greatly simplified.

*Sanskrit* :—The education of a Hindu gentleman cannot be said to be complete without some knowledge of Sanskrit literature, so all Hindus should study Sanskrit literature, if the University aims at training up gentlemen and not merely scholars and professional men. That Sanskrit need not be very critical. The students must learn the grammar of some language very carefully ; viz, either of English

or of their own vernacular. It would be easy to teach Sanskrit grammar by simply pointing out the differences of the Sanskrit grammar from these. Sanskrit grammar scare away students ; but professors insist upon Sanskrit grammar being critically taught. But for men who are not to be Sanskrit scholars but are to receive a liberal education, such insistence is pernicious. In my own experience I have seen Sanskrit grammar made interesting to students by the method of pointing out differences and these students can read and understand Sanskrit very well. University does not aim at creating a body of Sanskrit writers. But unfortunately the low pay attached generally to Sanskrit professorships does not generally attract first rate men and the method of teaching is dull, uninteresting and traditional.

Sanskrit is necessary for the critical study of the Vernacular and for this purpose first class Sanskrit men in India are required. The comparative philology of Indian languages is engaging the attention of Indian scholars and some of their researches in this department of knowledge are of great value. They are preparing indices of old books, grouping words according to their origin and examining their grammatical structure. H. H. the Lieutenant-Governor of Bengal said in his annual address for 1900 at the Asiatic Society, Bengal, that oriental research was the property of Europeans at the beginning of this century but at the end of the century it is the property of native scholars.

There should be three distinct classes of Sanskrit men in India. (1) Indigenous Pandits who would study Sanskrit without English for the purposes of religion, philosophy, Hindu law, rituals and so on. (2) The Hindu students of the University who are to study Hindu Poetry, Hindu History and the ancient Hindu life in India along with English. (3) A body of experts who would study Sanskrit and English at the same breath, be engaged in Higher class of teaching, conduct researches in archæology, antiquities and ancient literature of India and be, generally speaking, interpreters of European thoughts to the Pandits and ancient Indian thought to Europeans. For the first, there are ample materials in the country and the Government examinations have in several Provinces afford an organization for testing the value of the education imparted by Pandits. For the second, the University is to make arrangements. The present method of teaching Sanskrit is,



however, susceptible of much improvement. For the third too, the University is responsible. But there is only one College in all India where this can be successfully done, namely the Calcutta Government Sanskrit College where students learn Sanskrit from their early infancy along with English and pass the University examinations along with a number of Sanskrit examinations in various subjects. These are required to study Sanskrit critically with grammar, philology etc.

The vernaculars need not be taught at Colleges ; and ample provisions are being made for their teaching at schools but the college student should be encouraged to study Vernacular literature at home. There is an optional paper on original composition in the Vernacular in the F.A. and B.A. now ; but this should be made compulsory and the candidates should be examined in the history of their Literature in another paper. If these two papers be made compulsory, they will learn to express their thoughts in one language properly and if they succeed in doing so they will not so greatly blunder in expressing their thoughts in English. A taste for the study of the vernaculars has grown up of late years. And the History of almost all the great vernacular Literatures have been written. Hindi, Bengali, Marhathi and Tamil have the history of their Literature written by men who devoted themselves to the work.

*History, Political Economy and Geography :—* There are few colleges in which these are properly taught. The few instances in which history is taught, it is taught in a method which is at once dull, uninteresting and traditional. Voluminous notes are given. The students are not explained the Principles and encouraged to work out the details themselves. In Political Economy Indian practical problems are rarely touched upon. Geography is not taught in Colleges at all.

If a school of Theology is to be established, who are to be the professors and whom is it intended to teach ? Professors of any persuasion will be looked upon with suspicion by the people of all other persuasions. The object of the University will be defeated. So it is much better to leave the investigation of the great problems of comparative religion to those deep-read scholars both in Europe and India who are above theologian's bias.

The scope of the University has become so large and its popularity and influence are so great and its

benefits are so varied that it is high time that a permanent body of examiners be appointed whose whole time should be devoted to examining. Now-a-days a vast concourse of students assemble at one season. They are examined. Heaps of papers are collected. They are distributed to examiners good, bad and indifferent, young, old, middle-aged, and in 30 or 40 days the vast heap is examined. Let the University safe-guard itself any way it likes, standard of examination must vary in different persons. There is a list indeed of examiners but what is wanted is that veteran old teachers should be made examiners and the examiners should continue their work all the year round. Let examinations be held every quarter or even every two months. There will be a small number of papers to examine but always some papers to examine and the Standard of examination will remain the same.



*MEMORANDUM of Mr. J. CHAUDHURI'S  
evidence before the Universities Commis-  
sion.*

I had just joined Oxford when Mr. Gladstone came there to deliver the first Romanes lecture. Speaking of universities he compared them to seed-beds and by contrast I said to myself what a hot-house I had come out of. The more I got used to the life and surroundings at the English universities, the more I became convinced that the highly artificial system of examination and training that obtains in our universities here is not at all conducive to the healthy development of the body or mind. We are forced to such an extent while we are at the universities here that the strain caused on us by the mixed and miscellaneous character of our examinations, causes a great many of us to fall off. Even those that get through them generally languish and wither both physically and mentally after they come out of the university hot-house. Of course, I am not disregarding the fact that the want of adequate or suitable post-graduate opportunities is at least as much responsible for this result as the faulty system of our university training and the oppressive character of our examinations.

If the object of university education be the formation of character and the development of mind, then I submit that our present universities cannot in the proper sense be said to pay any heed to either. I have come here not merely to criticise. I have attempted to formulate, within the short time at my disposal, the outlines of a scheme under which I believe the Calcutta University can be converted into a teaching university, if not at once, certainly, in the course of a few years.

My scheme chiefly relates to two questions. (1) How to convert this university into a residential university. (2) How to convert it into a teaching university.

As regards the first question I quite believe that it is possible to convert it, in a manner, into a residential university.

The method that I would recommend is practically the same as obtains in Oxford and Cambridge with regard to lodging-houses with necessary modifications to adapt the system to the requirements of this country. The university should have a sort of Lodging House Board or Delegacy as there is at Oxford.

All the students lodging-houses should be licensed from this department of the university, and must satisfy the conditions that may be imposed by the university on this behalf. No student, with the exception of those who may live with members of their family or with their guardian or a recognised tutor, should be allowed to live in other than the licensed lodging-houses. Every college at Oxford or Cambridge has to provide and look after the arrangements for the accommodation, board and lodging of the undergraduates, mostly in the college premises. I therefore see no reason why each of the colleges here should not undertake similar work and arrange for the keeping of some licensed lodging-houses under the supervision and control of the university. Each of the licensed lodging-houses so kept by the colleges may be placed under the supervision of a tutor or a recognised graduate who may live with the students. As regards Government colleges or colleges aided and controlled by Government, the hostels attached to them should also be placed under similar supervision and control.

It would cause no hardship to the private colleges to keep some licensed lodging-houses attached to their establishment. As it is, the students live and mess together and run such lodging-houses on their own account. If the colleges arrange for them directly or through their tutors they would not certainly be losers. I expect that if the colleges have to make arrangements in this way they will be able to manage matters more economically or at any rate better. This will in the first place save the students a great deal of worry and necessarily more time will be available to them for study. In the next place if the lodging-houses are kept under sanitary conditions the university will gain the object which they are now attempting to attain by prescribing a text-book on sanitary science in the F. A. Examination. Then it will enable the colleges to

exercise supervision and control in the matter of studies and morals of the undergraduates placed under their care.

The colleges here may by such means be made to undertake to a certain extent the duties of a college tutor at Oxford or Cambridge.

I also consider it quite practicable

(II) Teaching to convert our university into a teaching university.

It will of course require some expenditure of money on the part of the Government. But it will not be in any sense excessive considering the advantages that may be gained by it.

Before however we can convert our university into a teaching university we must first settle what we propose to teach our boys. If we persevere in our determination that every young man who wants to pass through the portals of our university must know something of everything and nothing much to his own liking, it will never be possible to convert our university into a teaching body.

There can be no sense in retaining two successive examinations of the mixed and miscellaneous character as the Entrance and the First

(a) Reform in the examinations and bifurcation of studies.  
Examination in Arts; I know of no English university which insists on two compulsory examinations of the above type. Raise the standard and the age limit of the Entrance Examination if you will, but the F. A. Examination should be dismantled from its present basis. If a man wants to study medicine, history, literature and I can name many more subjects, why should you insist on his passing a simultaneous examination in modern geometry, conic sections, algebra up to the binomial theorem, trigonometry up to the solution of triangles and a host of other subjects thrown in his way only to retard his progress in the subject of his choice. If you insist on an elementary knowledge of mathematics, physical science and chemistry in every under-graduate before you admit him to the university, you may recast your entrance standard somewhat on the lines of the London matriculation. But when you are satisfied about his general qualifications or his capacity for acquiring mixed qualifications, let him choose a particular department of study and acquire, if possible, some proficiency in

it. Those who wish to study history, law, physical or the natural sciences, medicine or mathematics or mental or moral philosophy, are never hampered at any of the English universities with an examination of such a miscellaneous character as the First Examination in Arts. After their Matriculation, Responsions or the Little Go, as the case may be, students at the English universities may confine themselves to a particular subject or subjects of an allied group, in which they propose to take their degree. Let the First Examination in Arts be in its true sense a first or preliminary examination and let its object be to ascertain the progress or proficiency that an undergraduate is acquiring in the subject of his choice.

If the F. A. Examination is simplified in this manner it will be possible to adopt a system of university teaching and inter-collegiate instruction.

The F. A. classes are the biggest classes at our colleges. I remember that I had at one time under me about 340 students in the 1st year class at the Metropolitan Institution and about 300 in the second year class, each divided into two sections. Imagine that each of these 600 students or more had to be taught each of the seven different subjects in which they had to offer themselves for examination. Supposing if some system of bifurcation of studies were adopted on an undergraduate entering a college after passing the university matriculation, some would at once take up the science course, some the art course and this will give each greater opportunities in acquiring proficiency in the subjects of his choice and will also cause the college class-rooms or lecture-halls to be less congested than they are at present. The teachers will necessarily be able to pay more personal attention to individual students. The colleges may have to keep a smaller staff or with the same staff would manage matters better.

The bifurcation system if adopted immediately after the Entrance Examination will also lessen the strain and fatigue on the students to a considerable extent. They will no longer be required to attend congested class-rooms daily for five hours at a stretch and to devote all their spare hours at home in getting up notes, keys, epitomes and text-books, with the sole

object of answering the likely questions at the dreaded examinations.

As a preliminary step towards making our university a teaching university I shall not only do away with the miscellaneous character of the First Arts Examination but also with text-books as well. The university should prescribe only the subjects and never any text-books. The college tutor will tell the undergraduate what to read and how to work up his subject. This will to a great extent put a restraint on the noxious trade in keys and cram-books that are eating into the vitals of our undergraduates. Now that an undergraduate has got to score a certain percentage of marks in more than half a dozen subjects, the average student only cares to get a smattering in each out of his cram-books or lecture-notes of the same character. Those who possess a comprehensive memory do better than others. I have known instances where students with a poor memory but with clear understanding and a natural aptitude for literary or scientific subjects have had to lag behind or fall off in the memory race on which our university at present insists.

To avoid the evils of the present system it will not do simply to rationalize the examinations. It will be necessary further to alter the method of our examinations. The papers set are too long. Option should be given to the students in respect of the questions and a limitation put as to the maximum number to be attempted. The present system of marking must also be altered. The qualitative system of marking in respect of each question and determining the class thereby is preferable to our system of marking by numerals and ascertaining the class or pass, as the case may be, on the total number of marks scored on the basis of the number of questions answered. The Edinburgh system is even better. Edinburgh is a teaching University, even more so than, perhaps, any other university in the United Kingdom. There undergraduates have to attend the university lectures. The professor in the course of his lectures sets papers and examines the answers. The records of results at these class examinations are kept at the university as also

those of the intermediate degree examinations—in which so far as I am aware there are no classes or divisions—and then the result of the final degree examination is taken into consideration along with the results of the class examinations, the preliminary degree examinations and the honours or the class is determined on the net result.

Before I leave the question of examinations I would say that I would retain English composition as a compulsory subject in both the art and the science courses but would allow the students to offer themselves for examination on this subject all by itself. I would also allow students to offer some of the other subjects separately and not always simultaneously as is the practice now.

Provided the examinations and method of holding them can be  
(d) Intercollegiate and university lectures. rationalised and the residential system introduced, it will be practicable to reconstitute our university into a teaching body. It would be possible then to arrange for tutorial supervision and guidance in colleges in respect of students' private studies and also to arrange for intercollegiate as also university lectures. Of the existing staff in the colleges I would retain so much as may be necessary for tutorial supervision and college lectures. Then I would have university chairs filled by some eminent men in each department of study.

The whole of the college staff need not be recognised teachers. But I would insist on every college having among its staff some recognised teachers as lecturers on subjects to which they propose to pay special attention or in respect of which they hold class-rooms. For instance, if a college professes to teach chemistry or physics the Board of studies of the University should insist as much on their having a recognised teacher as on their having a laboratory. If on the other hand some one or other college proposes to pay special attention to mathematics, sanskrit, classical literature, philosophy, history, law or science, I should insist on their having qualified and recognised teachers of such subjects and also on their having a suitable library and in some cases laboratory as well.



Under a more rational system of studies no college would have to maintain a staff for teaching all the subjects under the sun. Particular colleges which would prefer particular subject or subjects should offer special facilities to students in such branches of study. They would in their own interest be anxious to engage the best men available to teach such subjects and would not therefore be reluctant to engage well qualified and recognised teachers. But the university will have to make suitable arrangements for the training of teachers.

Even a subject like mathematics cannot, however, be taught at any college to the greatest advantage to its students by retaining on its staff only one very efficient teacher of the subject. A mathematical man attached to the staff of any particular college may be very good in pure mathematics but may not be equally efficient to teach mixed mathematics. A history lecturer at one college may be very good in modern history and another man in another college may have made ancient history his speciality. The same may be said with regard to philosophy, physical and natural sciences, chemistry, Sanskrit or other classical literature, &c. Here it is where the intercollegiate system of teaching comes in. The existing colleges need not under this system be jealous of each other or treat each other as rivals but on the contrary will find it to their advantage to carry on their work on the principle of mutual help. If a certain college allows the students of other colleges to attend its lectures or classes in any particular subject or subjects, the other colleges are bound to reciprocate. Of course the university will have to arrange about the intercollegiate lectures as they do at Oxford or Cambridge.

But I would not limit the educative agency of the university to merely private tutorial supervision in the colleges or to an intercollegiate system of lectures. Besides the recognised and well qualified staff of teachers or lecturers attached to a college staff I would have a staff of very efficient university professors. I shall create some university chairs and fill them with the best men available, no matter from where I get them. These chairs will be meant for

maintaining the high water mark in the intellectual life of the university. The lectures of such professors will be the common property of all the colleges in the university. The tutorial staff in each college will have to regulate who among the students are to attend such lectures at a particular period of their career.

As regards intercollegiate or university system of lectures it might be objected that the mofussil colleges offer an obstacle to the adoption of such a system of teaching. But, I submit, that they need not. They might be drawn into the system by a system of extension lectures. The university professors may at specified periods visit the different college centres and deliver a course of lectures. Or if colleges such as the Patna, Dacca, Krishnaghur, Hooghly, Rajshahy and others, possess some very efficient men they may be made occasionally to come and deliver a course of lectures at Calcutta. Professors or lecturers from any of the Calcutta colleges may be invited or persuaded by the university to visit the different college centres and to deliver a course of lectures in the same way. If regard be had to the fact that the system I propose discards cram altogether and proposes to introduce in its place education under a system of guidance by efficient and eminent men, an itinerary system of lectures must form an integral part of it and will be highly educative in its result. A visit by Prof. J. C. Bose to Dacca or any mofussil town and a few lectures by him on his researches would rouse enthusiasm amongst the students and produce an attraction for the study of science or an attachment to the subject amongst those who are already studying it and this is bound to produce very farreaching consequences.

For instance, when a man like Gladstone or Huxley came to deliver a lecture at Oxford or when Max Müller visited Cambridge with a similar object the undergraduates for a term would not talk of anything else. They would discuss, criticise or even dissect their lectures. They may be right or wrong, that matters little, but such lectures by eminent men at university or college centres impart an intellectual stimulus to the students, teach boys to think for themselves, help them to develop

their ideas and benefit them in various other ways.

The chief educative influence at Oxford comprises in the conditions of university life there. The undergraduates are not supposed to read English literature but they form themselves into societies and read papers on the life and work of English authors both great and small. In the same way they discuss and keep themselves abreast of current intellectual, moral and social movements. This is to a great extent due to their having eminent men amongst them as professors; although these professors do not ordinarily teach, yet they create an atmosphere in which youthful minds thrive. Even in Edinburgh where the university life is very different from what it is at Oxford or Cambridge, the atmosphere that surrounds a professor and his lecture-room furnishes a much stronger stimulus to learning than anything similar that I know of in this country.

The private colleges are doing on the whole very useful work. They are not as a rule profitable concerns. The proprietors or the college staff get only their living wages by the very hard work they have got to do in their connection. As, at present, it is beyond the means of such colleges to make provision for well-equipped laboratories or libraries or to found highly paid chairs, I would convert the Presidency College into a department of the University. It will be necessary to alter the existing arrangements radically for such a purpose. The hostel with a tutorial body may be kept as a model college. But the laboratories, libraries, the lecture-rooms will have to be reconstituted to answer the requirements of the whole university. By university we at present understand only an examining office. But when a well-equipped laboratory, a library, a museum, a course of lectures from eminent men will be the common property of all the university undergraduates there will be greater facilities for teaching and opportunities for learning amongst them.

Besides museums, libraries and laboratories the university should also found post-graduate paid fellowships and travelling scholarships tenable for a number of years. Those who may be en-

(e) University libraries, laboratories and museums.

(f) Post-graduate fellowships and scholarships.

titled to them may work under university professors here or go abroad. If they shew any special aptitude for original work or research they may be given opportunities for continuing the same.

It cannot be expected that every student who passes through the university will be a scholar. For the average student the university ought not to insist on more than general culture in the particular department of his study. But at the same time the university should offer opportunities to those who possess both the capacity and desire of becoming specialists of obtaining a thorough grounding for the same in the course of their university career.

Under the system I propose, the students, after attending two or three lectures a day, will have time to work in the libraries or the laboratories under the directions of the college tutors, university professors or their assistants. It would not take any college tutor more than an hour a week to judge of the work that his pupil has done during the previous week or to guide him as regards the work to be done by him in the course of the next. I have known many young men in Oxford who under two hours tutorial guidance in the week and with the Bodleian library at their command do remarkably well in their examinations.

But the converting of our universities into teaching bodies is but half the problem. The other half consists in giving us suitable post-graduate opportunities to improve ourselves. If we are not given positions of responsibility in after life, university education can but carry us a little way. No position in life for which we are intellectually fitted ought to be denied us. As regards university professorships, we may have to fill the chairs with experts or eminent men from Europe to start with yet it must be understood that such chairs should never be beyond the dreams of our graduates. If post-graduate fellowships become an institution and such fellows, as also some capable college lecturers, are taken as assistants to the university professors and in such capacities they show sufficient ability or research there ought to be no bar to their being promoted to the university chair on the same salary and conditions as any other professor.

(g) Post-graduate opportunities.

So far with regard to the higher limit but touching the lower limit, we constantly complain of the large percentage of failures at our universities. With regard to this I need only say that I am quite certain that, if you are willing to try the experiment, you may take any 100 out of the students who have been plucked in the First Arts Examination here to any university in the United Kingdom of Great Britain, keep them there under tutorial supervision and you will find that in three years' time 75 per cent. of them, if not all, will return home with at least a pass-degree. They do not succeed here because our system is faulty and our examinations are severe.

As regards the constitution of our university my suggestions are: Limit the number and qualification of fellows. A third of this limited number is to be nominated by Government, a third to be elected by the colleges and a third by the Masters of Arts of a certain standing. These fellowships must not be life-fellowships but must be terminable after a term of office. The retiring fellows may be renominated or re-elected. This will leave opportunity for keeping out those who may not take sufficient interest as also for the introduction of fresh blood into the Senate. If an intercollegiate system of lectures and a teaching university is to be founded it is essential that all the colleges must be adequately represented in the Senate. The Government and the M. A.'s, representing the graduates, must also be equally represented so that the colleges may not have all their own way. But the organisation of the Senate, the Faculties or the Syndicate will depend greatly on changes that may be made in the mode of our university teaching and education. Simply making the university a department of the State will not result in any practical good.

#### POST SCRIPT.

I would invite the attention of the Commission to the present system of teaching law and the holding of law classes at our colleges. Law classes are held for an hour before the college ordinarily meets and the attendance at such classes is very unsatisfactory. The present system which requires simply the presence

Law Colleges.

at a certain percentage of lectures to entitle a graduate to go up for the B. L. Examination should be discontinued. Colleges at present teaching law may be required to provide for workable law libraries, residential arrangements and tutorial supervision as proposed in my note. The question of law colleges is one of great importance. First because the laxity of the present system encourages by far the largest proportion of our graduates to take to law as a profession. But what is worse is, that the law classes being the only paying classes in private colleges, none of them can enforce whole-time attendance of the students even during the one hour lectures held daily. If any college, at present, insisted on such attendance, none would go to that college but would prefer to join another where the rule as to attendance is more elastic. This laxity is likely to have a very unwholesome effect on the morals of young men who intend to take to law as a profession. The remedy for this lies in asking the law colleges to introduce reforms on the lines I have suggested. I would further suggest that in the B. L. Examination more attention ought to be given to Roman Law, legal history and the general principles of law than to the various legislative enactments of the Government of India or the Local Government. After graduation, rules similar to those made by the High Court for the enrolment of vakils may be prescribed for all legal practitioners with this difference that those who intend to practice in the mofussil may be articulated to vakils or pleaders there. The various sub-divisions at present existing amongst legal practitioners may also with advantage be reduced. This, I expect, will generally improve the quality of lawyers as also reduce their number and will necessarily lead a larger number of our young men to take to other economically productive pursuits. But to divert our national energy in the latter direction the government must make adequate provision for the imparting of a thoroughly scientific education to our youths. A university professor of technology with a few qualified assistants and a suitable laboratory in our midst for the training of our graduates in some useful industries will confer on them, and through them on the whole country, immense benefit.

## REVEREND A. B. WANN, PROFESSOR, GENERAL ASSEMBLY'S INSTITUTION.

### TEACHING UNIVERSITIES.

The University of Calcutta is a teaching University, in so far as it compels all candidates to pass through a regular course of instruction in an affiliated college, for which it prescribes a syllabus, text-books, and many regulations. The true method of improving the teaching and of stimulating University life is to improve the teachers' equipment and the *esprit de corps* of the colleges. The large number of students is an insuperable obstacle in the way of centralised B.A., teaching by strictly University professors and lecturers. The only sphere for such would be (1) special subjects in the B.A. course, which the University feels bound to prescribe, yet in which there are too few students for the college to take up; (2) M.A. teaching—I consider this might with advantage be taken up by the University. It would hardly be fair, however, to set up professorships for advanced students from the surplus fees of Entrance, F.A. and B.A. candidates. Government grants or private endowments must come in. It has long seemed to me that the Presidency College might be utilised for this purpose. At present, it is a rival to other colleges, on rather unequal terms. For it has an equipment from Government and endowed scholarships which no other College can supply for itself. This draws away many of the best students from other colleges after the F.A. stage, which is most discouraging for the teachers, and prevents fair emulation. I should like to see it made a University College for Science degrees and M.A. teaching. The University should give and take more with the colleges. On the one hand the largest, most stable, and most successful colleges should have direct representation on the governing body, and experienced teachers should have the predominating voice in its legislation. On the other hand, the University should have direct oversight of the colleges, and satisfy itself as to the building, site, accommodation, equipment, sanitation, etc., and as to the staff—qualifications, remuneration, work, etc. A list of qualified teachers would be hard to draw up. It might be done in the case of Indian University men; but it is difficult to see what uniform principle could be applied to European teachers. Spheres of influence would tend, I believe, to equalise the different Universities in standing, and draw the colleges of each province into a natural union which would be a strength to them.

### THE SENATE AND SYNDICATE.

I would suggest the fixing of the Senate at say 100 or 150, allocated among the different faculties. The majority, at least in arts, should be practical teachers of at least five years' standing. The remainder should be one-half nominated by Government without condition, and one-half elected by graduates faculty by faculty, from their own number. It is vitally important that experts should deal with educational questions; it is important also to qualify professional narrowness of view, and perhaps self-interest by outside Government nomination; and it is important to bring the *alumni* of the University, who may and ought to do so much for it, into its organisation. Non-attendance should disqualify, and appointments should be made for a term of, say, five years. I should put the appointment of the teaching members directly in the hands of the colleges. The Syndicate has such important functions that it should have a statutory basis. I would suggest that the Director of Public Instruction should be a statutory *ex-officio* member, and the other members elected by the Senate in sections corresponding to the composition of the Senate.

### GRADUATES.

A register of graduates might serve useful purposes beyond that of an electoral roll, *e.g.*, it might be used to appeal to the graduates of the University to aid financially in University schemes.

## STUDENTS OF THE UNIVERSITY.

Certificates for examinations are granted easily by college authorities, because except at entrance, the University asks for no certificate of proficiency. It requires courage on the part of a college to keep back any considerable number of students, when other colleges send up all and sundry. A certificate of having passed the college tests should be required; and the worth of these tests should be looked into by the light of the success of the college in University Examinations. The number of students in Calcutta is so large that it is impossible for the University to do much in the way of bringing them together. A college *esprit de corps* ought rather to be encouraged; and following on that, healthy inter-collegiate emulation might be fostered. A minimum age of 16 should be fixed for Matriculation.

## TEACHING.

English is undoubtedly the most important subject, not only for its usefulness in after-life, but as the medium of instruction, the language of books other than text-books which the students may read, and the instrument by which they express themselves. Many boys enter college unfit to follow and profit by the teaching in English. Their time is wasted, discipline is relaxed, and moral and mental deterioration follow. I need not dwell upon this point, on which teachers are unanimous. But I would point out that a University student must be able to do more than follow English lectures intelligently. I am persuaded from my experience that many do so, and yet fail disastrously at examinations, because they dare not trust themselves to answer in their own words, and therefore store their memories with what they think "a form of sound words" beforehand. To do their thinking justice, they should have a far better mastery of English, the instrument of expression. Until the standard of English is very considerably raised, memory will be made to do the work of understanding, and ultimately both will suffer: one from overwork, the other from atrophy. What is imperatively needed is a much higher standard in English at the Entrance Examination. I would suggest (1) a raising of the percentage necessary for a pass; (2) explicit instructions to paper-setters to test the intelligence of candidates, (3) more importance to be attached to translation both ways, and to original composition: paraphrasing, at least at entrance, seems to me of doubtful value; (4) either the abolition of the text-book, or the prescribing of 400 pages instead of about 100—our boys can cram 100 pages: key analysis, model questions and answers and all. But I plead for shorter papers in the interests of intelligence and originality as against memory. Then after Matriculation what seems to be required is (1) assiduous practice in composition, however dull the work may be to the college staff; (2) a great increase in the amount of simple English prose prescribed.

In view of the importance of English, and of the many failures in that subject, I think a preliminary examination in that subject alone should take place, say, six months before the General Entrance Examination. It would reduce the amount of examining, and the expenses of candidates. Until the Entrance Examination is raised to a higher standard all round, I think it unwise to encourage much bifurcation or option in study before the F.A. Examination is passed. For our Indian students culture depends almost wholly on their University curriculum, and I would have that broad, even at the risk of giving them a smattering of knowledge in many subjects. Besides, until they have been introduced to the elements of many studies, how are they to find out their special aptitudes? I think a much larger quantity of simple prose and poetry, but especially prose, should be prescribed for both F.A. and B.A. courses. Critical and philological questions, and books which particularly raise such questions, should be reserved for the Honour's course. I should like to see an elementary history of English Literature, with specimen extracts in the pass course. I am in favour of maintaining separate Honour courses for the B.A. degree. First rate students can cover so much more ground than average men that they should have special facilities given to them, and credit for work done. I should be glad to see Honours given for a high aggregate in the pass course. In my opinion, text-books are an advantage. They save time in the class, and are much easier to read than written notes. They need not conform closely to



the syllabus; nor need a teacher confine himself to them. In teaching Philosophy I should always use a text-book, even if the University did not prescribe one. It is for the paper-setter and examiners to set themselves against mere memorising of the text-book. Under any system, memorising, deliberate or not, must go on to some extent. But the marks assigned to mere "book work" can be reduced. Moderators seem to me to be useless if the right men are appointed to set papers. But I think it well that two men should set each paper.

#### EXAMINATIONS.

Unless the courses for examination are narrowly specialised, I should favour a pass being granted for a fair aggregate result, provided that the average marks have been gained in English. I think the Board of Examiners should have it in their power to give "grace" or rather compensation marks, if the examiners in any subject report that the papers in that subject are (1) too long; (2) or too severe; (3) or contain questions outside the syllabus or contrary to instructions.

#### THEOLOGICAL DEGREES.

This question has been agitated by certain Protestant missionaries. There are so many complications in the way of introducing Theological courses in the University curriculum that I should favour the alternative scheme of reviving the charter of the Serampore College under a representative board. Under that charter the power to grant degrees was given. If this experiment succeeded the whole question might be re-opened. I think it is a matter of regret that Theology does not find a place in the University.

#### COLLEGES.

I have no information to volunteer as to the colleges. But I should like to reiterate my conviction that they should have a greater place and responsibility than they now have in the University organization. I think the co-operation of two or more colleges should be made permissive.

#### GENERAL REMARKS.

I should like to add a few more general remarks expressing my matured convictions: (1) An all-important thing in University teaching and examining is the material supplied by the school, and the High School system must be put on a proper footing before they can be good feeders of the University. The key to many University problems lies in the schools. (2) What is needed is teachers in schools properly trained and adequately paid. (3) A school-leaving certificate of lower rank than the Entrance pass, and a comprehensive examination for minor posts in Government service, with prospects of promotion, for which examination the leaving certificate would be a condition, would lighten the burden of the University by drawing away many who have no keen intellectual interest, and are not true students.



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## MR. G. C. BOSE, PRINCIPAL OF THE BANGABASI COLLEGE, CALCUTTA.

### PART I.

I. One point that I wish clearly to make at the outset is this :—The system of teaching accommodates itself to the system of examination ; and as the latter gets vitiated, the former gets vitiated in the same proportion.

The system of examination has got vitiated, and that for the following reasons, namely, (1) papers are not always as carefully set as they ought to be, (2) answers are not always as properly examined as they ought to be.

#### *Proofs of Statements (1) and (2).*

(a) It is not the teacher so much as the examiner that is responsible for the spread of the practice of cramming.

(b) The system of rigidly apportioning marks to each question handicaps the examiner considerably (at least at the Degree Examinations), the result being he has often to pass candidates whom he does not consider fully fit to pass and to pluck others whom he would pass if he could. Quality suffers in comparison with quantity.

(c) Too many examiners are appointed to examine the answers to each paper. The standard of examination necessarily varies excessively. A certain amount of variation in the standard is unavoidable, but this variation may be reduced to a more reasonable limit by reducing the number of examiners.

(d) The paper-setters should always be men of approved ability and experience in Indian education. The scale of remuneration for paper-setting is absurdly low. The work should either be highly paid or not paid for at all, but made wholly honorary.

(e) More care should be taken in appointing paper examiners.

(f) With regard to the setting of papers, I am of opinion that in the case of each subject teachers of that subject are the fittest persons to set papers on it and also to examine the answer papers. A man even of approved ability and experience should not be appointed to set papers, if he has left off teaching for any length of time. Too much care and circumspection cannot be bestowed on the point.

(g) The work of examination should be of a dignified nature, and the examiners should be regarded as experts doing responsible work. But as it stands, they often receive scant courtesy from the authorities, and this tends to lower their position in their own eyes, and their work necessarily suffers to the detriment of the system of examination.

(h) Examiners and paper-setters should form a permanent body into which new elements should be sparingly introduced.

(i) Threats of punishment to examiners for infraction of examination rules should not be paraded. Printed rules in the Calendar providing punishment for examiners form a humiliating and demoralizing spectacle.

(j) Examination should be on the subjects, and not merely on the text-books selected to teach those subjects.

II. Immediately connected with the system of examination is the question of selection and use of text-books. On this point I divide my remarks into three heads :—

- (1) Text-books are too frequently changed in some subjects. Appended are documents (A), (B), (C), bearing out this remark.

(2) There are too many text-books in the subject of History and Geography in the Entrance Examination—no less than six.

(3) Text-books selected are not always suitable and adapted to the capacities of those for whom they are intended. For instance, *Introductory Primer*, a text in the Entrance Examination, is wholly unsuited to the capacities of the students of the Entrance class. The English of Buckley's History of England and Ransome's History of England, which were text-books for the Entrance for a series of years, was too difficult for those for whom the books were prescribed. In the F. A. Examination Hutton's Life of Scott and Blackie's Self-Culture are often selected as text-books in English. The first book deals with criticisms on Scott's novels and other works, and the boys are required to read the criticisms without reading the books on which the criticisms are based. The second book is too philosophical for their grasp. Jago's Elements of Chemistry is not the kind of text-books that should be placed in the hands of F. A. students.

Newth's Elements of Chemistry for the B. A. Examination should be changed for a better book.

There should be more fixity in the Literature Course both for the F. A. and B. A. Examinations, as otherwise in alternate years the plucked students of previous years are placed at a great disadvantage.

Prose English literature for the Entrance and F. A. Examinations should be wholly selected from standard modern authors.

III. I am not a Fellow of the University and not therefore conversant with the inner working of the University, but I am thoroughly conversant with their orders, which I have to carry out. Their orders sometimes appear to me conflicting and hence subversive of discipline. For instance, the rules of percentage of attendance at lectures and of changing the centre of examination are relaxed in one year and rigidly enforced in another, perhaps to be relaxed in the next. We cannot therefore give any reasonable assurance to our students on these points, and they run away with a bad impression of our dignity as Principals of Colleges. Our representations sometimes receive scanty consideration from the University authorities, and this is also subversive of discipline.

Remarks have been made before this Commission regarding the lack of discipline. Private colleges have faults, I admit, and grave ones too, but in the matter of discipline, as far as it lies in our hands, I can challenge comparison with any college, Government or aided. It will also, I think, be found that from the nature of the case there is more sympathy, more friendliness, more co-operation, between the professors and students of private colleges in Calcutta than can readily be found in other institutions. There cannot be a surer and sounder basis and test of discipline than this.

IV. *Question 10.*—Students begin their University course without a knowledge of English sufficient to enable them to profit by the lectures they attend. This defect can be supplied by selecting proper text-books for the Entrance Examination. This will necessarily improve the system of teaching and remedy the defect.

The new scheme of education in schools on a vernacular basis, in which all subjects will be taught through the medium of a vernacular in all classes excepting the first four, is, I am afraid, likely to stand in the way of the pupils' acquiring an adequate knowledge of English.

Inferior though the knowledge of English language is in our boys, it is not so bad as it is often painted. Remembering that our boys have to learn all the subjects of their study through the medium of English, which is a foreign language, it should be a matter, not for regret, but for congratulation, that an average Bengali boy knows so much of the English language as he does.

Boys under 16 should not be allowed to go in for the Entrance Examination. The result of the present system is, in many cases, a physical, intellectual,

and moral break-down. Many books are placed in their hands, when they are in the University, which ought not to be placed in the hands of boys of 13 or 14.

The study of Natural Sciences has not received that amount of attention that they seem to deserve. For instance, I believe my college is the only Arts College in Calcutta which teaches Botany. If I am correctly informed, it has only very lately been introduced into the Presidency College. But the papers that are usually set in the examination encourage cram and discount practical knowledge. Improve the papers set, and the study of the subject will at once improve.

I have seen in England that provision exists in the Jermyn Street Museum of Geology to facilitate the study of Geology and Mineralogy by students of these subjects; and also in the Royal Botanical Gardens at Kew to facilitate the study of Botany by students of the subject. Such provisions, I think, can easily be made in the Calcutta Museum and the Sibpore Royal Botanical Gardens.

There is no Arts College in Calcutta where there is provision for teaching Zoology, not even in the Presidency College. This should receive attention from the authorities.

V. *Question 3.*—With regard to the conversion of Indian Universities into teaching Universities, I think something might very well be done in this direction in the advanced Science Courses. To assist the teaching of Physics, Chemistry, Biology, Geology, and Mineralogy, the University might found museums and laboratories with competent professors to teach these subjects efficiently. Particular colleges may be willing to teach any one or all of these subjects, and may possess staffs thoroughly efficient for the work, but they may not have the necessary funds.

## PART II.

*Paragraph 5.*—The maximum number should be 100. I would rather wish the number to be put at so low a figure as 50.

Fellowships should be permanent, but made terminable for long-continued non-attendance.

Educational qualifications should be the chief passport for appointment to Fellowships, but administrative ability, knowledge of foreign educational systems, and position in society and Government service should also have due weight in the appointment of Fellows.

*Paragraph 6.*—The number, as at present fixed, is adequate; but the colleges are not adequately represented. There should be more teachers in the body.

*Paragraph 7.*—The Faculties may stand as they are, but the Boards of Studies require revision.

*Paragraph 8.*—There seems to be some misconception in the matter of colleges granting certificates “too easily” to candidates who present themselves for the F. A. or Degree Examinations. Colleges have not to certify whether a candidate has a reasonable chance of passing the examination; they have merely to certify that he has attended a full course of lectures and has been present at a certain number of them.

*Paragraph 13.*—The affiliation rules, as they now stand, do afford a guarantee that colleges are up to the mark when admitted. If after admission they fall below this mark, they will show bad results at the University examinations, and will, as an inevitable consequence, go to the wall. The natural instinct of self-preservation which is the most effective of all instincts will afford the guarantee sought to be enforced by rules.

If I am permitted to touch upon a matter which is not quite relevant, I may say a few words on the influence of English education in one respect. It has created Bengali prose literature, which was practically non-existent in the pre-University period. It should always be remembered as a crowning achievement of the Calcutta University, which is yet in its infantile stage.

## A

## ENTRANCE EXAMINATION.

*History Course.*

ENGLAND.	INDIA.
1888. Edith Thompson.	Hunter.
1889. Ditto.	Do.
1890. Gardiner.	Do.
1891. Do.	Do.
1892. Do.	Do.
1893. Do.	Do.
1894. Buckley.	R. C. Dutt.
1895. Do.	Do.
1896. Do.	Do.
1897. Do.	Do.
1898. Do.	H. P. Sastri.
1899. Do.	Do.
1900. Ransome.	Do.
1901. Do.	Do.
1902. Do.	Do.
1903. Townsend Warner.	Lethbridge.
1904. Ditto.	A. C. Mukerjee.

## B

## F. A. EXAMINATION.

Chemistry first introduced as an alternative subject with Philosophy in 1873. There was no Physics.

Physics first introduced in 1894 as a compulsory subject. There was no Chemistry.

Chemistry again introduced, but as an optional subject, in 1893.

1893. Remsen.	1899. Roscoe and Lunt.
1894. Do.	1900. Ditto.
1895. Do.	1901. Jago.
1896. Do.	1902. Do.
1897. Roscoe and Lunt.	1903. Do.
1898. Remsen.	1904. Parrish.

Compulsory

## C

## B. A. EXAMINATION.

*Chemistry Course.*

1886.

## THE FULL COURSE.

Miller . . . . .	(The Elements.)
Armstrong . . . . .	(Organic.)

## THE ELEMENTS OF CHEMISTRY.

Fownes . . . . .	Inorganic Chemistry.
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1887.

As in 1886.

1888.

## THE FULL COURSE.

Frankland and Japp . . . . .	Inorganic Chemistry.
Armstrong . . . . .	Organic.

## THE ELEMENTS OF CHEMISTRY.

As above.

1889.

THE FULL COURSE.

Frankland and Japp . . . . . (Inorganic.)  
Remsen . . . . . (Organic.)

THE ELEMENTS OF CHEMISTRY.

As above.

1890.

THE FULL COURSE.

As above.

THE ELEMENTS OF CHEMISTRY.

Watts . . . . . Inorganic Chemistry (1883).

1891.

As in 1890.

1892.

Frankland and Japp . . . . . (Inorganic.)  
Remsen . . . . . (Organic.)  
Miller . . . . . The Chemical Physics.

1893.

As in 1892.

1894.

CHEMISTRY.

Kolbe . . . . . Inorganic Chemistry translated by  
Humpidge.

1895.

As in 1894.

1896.

Kolbe . . . . . Inorganic Chemistry (as above).

1897.

As in 1896.

1898.

Kolbe . . . . . Inorganic Chemistry.

1899.

Newth . . . . . Inorganic Chemistry.

1900.

As in 1899.

1901.

As in 1900.

1902.

As in 1901.



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THE REVEREND H. L. NANSEN, PRINCIPAL, BISHOP'S  
COLLEGE.

*Teaching University.*

I doubt whether any greater advantage would be gained by making the University a teaching body than by perfecting it as an examining body. Would professors and lecturers appointed by the University be necessarily better than many of those now employed by the colleges? If, however, such a change is seriously contemplated, might it not be well to consider whether, in spite of the immense vested interests involved, the University could not be removed out of Calcutta altogether, to some smaller town, which might become essentially a University town, where it would be easier to adopt the requisite machinery necessary to make the University a teaching body, and where the moral surroundings of the students would be altogether of a healthier tone. If University professors and lecturers are to be appointed in Calcutta, the different colleges are so widely separated, one from another, that the number of students from the various colleges of Calcutta able to attend the lectures given by the University, would be very limited. This difficulty might, perhaps, be got over by appointing the University professors to lecture in different centres convenient for different groups of colleges.

*Teachers recognised by the University.*

If the suggested recognition would have the effect of improving the position of teachers by giving them a certain status, then a greater number of really qualified men might be encouraged to adopt teaching as a profession than at present is the case. As things are now, it is a noticeable fact that many of those who have taken their degrees in high honours, and seem well fitted for the work of teaching, either do not take up teaching at all; or if they do take it up only as a convenience to themselves while preparing for some examination that will give them an entry into other professions. If, however, the intention of the proposed recognition is to compel private colleges to have upon their staff only those teachers who have been recognised by the University, such a requirement might involve hardship, and in some cases, interfere with the freedom of each Principal to choose his own staff. And if it be urged that such compulsion is necessary in order to secure the efficiency of the teachers employed, it would surely be possible to secure efficient teaching without introducing any rule which would interfere with the liberty of action of any individual Principal. Let the University improve the character of the examinations and require the colleges to attain a certain percentage of successes in proportion to the number of students sent up for the F. A. and B. A. examinations on pain of losing their affiliation on failure in three consecutive years to attain the minimum percentage required, unless satisfactory explanation of the failure can be given. Such a rule would in a few years' time be sure to raise the efficiency of the teaching in the various colleges. And such a rule together with a certificate that the candidates going in for any examination had passed a college text of a satisfactory standard would tend to remedy the present evil of granting certificates too easily, referred to in paragraph 9 of the memorandum of points for consideration.

*Residence of students.*

I think the University might well require of affiliated colleges that they should do something for the proper housing under healthy moral conditions of their students; and a Board might be appointed to see that such regulations as are made, are strictly enforced.

*Age-limit.*

It would be well, I think, that a minimum age-limit should be fixed for candidates for the Entrance Examination. The limit might be 16.

*Teaching of English.*

The statement is certainly well founded that in many cases students begin their University course without sufficient knowledge of English to profit by

the lectures they attend. It has happened within my recent experience that a student has come up to read for his F.A. Examination after passing the Entrance Examination, quite unable to express himself on paper in intelligible English or even to readily understand a more or less simple question in English. The only conclusion that can be drawn is that he must have found it possible by learning his English work by heart to secure the minimum pass marks in the Entrance Examination. But had marks been taken off his other papers for bad English he could not have passed the examination. I would venture to suggest the following changes in the English course for the Entrance Examination, and in the papers set :—

- (1) Let the text-book set be shorter and simpler. As it is, the book is so long that the teacher has little time to do more than just get through the book set. He, therefore, has not much opportunity of teaching English independently.
- (2) More opportunity should be given to the candidate of showing a knowledge of colloquial English, and power to write in clear and simple English. Less marks should be given for knowledge of unusual or obsolete words.
- (3) It should be recognised that the knowledge of English to be expected from the Entrance Examination candidate is not knowledge of classical English, so much as ability to understand English when spoken to him, and power to express his ideas on paper in intelligible English.

If possible, it would certainly be an advantage if the students' knowledge of English were tested by oral examination and dictation.

More marks might be assigned for an essay in English on some simple subject, with an alternative piece of simple translation from the original vernacular into English.

- (4) Marks ought to be deducted in all the papers if the English is quite ungrammatical or hardly intelligible.

#### *Latin in the F.A. and B.A. Examinations.*

If the study of Latin is to be a means of education, then steps should be taken to compel the student to learn some Latin grammar and syntax ; and to make it impossible for him to pass the examination by simply committing to memory an English translation of the text-book as is the case at present.

I venture to think that the study of Latin would be put on a more satisfactory basis, if the following changes were made in the conduct of the examination :—

- (1) Fewer marks should be given and fewer passages set for translation only.
- (2) More short passages should be set to be commented on with historical or syntactical or explanatory notes.
- (3) More marks should be given for knowledge of introductory matter necessary for the intelligent understanding of the text-book.
- (4) More time should be given to answer the questions now set in unprepared translation into English and prose composition.

#### *Physics, Chemistry and Astronomy.*

It is undoubtedly the case that the instruction in these subjects is in many cases merely the imparting of book-knowledge, and that there is not enough practical work.

#### *School of Theology.*

I am not at all clear as to what those who advocate a school of theology in connection with the Calcutta University have in view, or as to what would be gained by having such a school.

If to encourage the comparative study of religions is the object of such a school, then I think it could be quite as well attained by making provision for it in the B.A. or M.A. Courses ; but it is a matter for serious consideration

whether a subject so avowedly in its infancy as the comparative study of religions is, could be taught to the under-graduates of the University with any real benefit to them.

Composed as the University is of men of all creeds and some possibly of no creed, it had much better in my opinion leave the subject of Theology proper alone.

Theology is not a subject that can be altogether effectively taught in the somewhat dry mental atmosphere of the University class-room. To teach Theology apart from practical religion would be but to repeat in another form the mistake so constantly charged to the Calcutta University in connection with its Science course that the instruction given is too often the mere imparting of book-knowledge to the exclusion of practical work.





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## MR. N. N. GHOSH, PRINCIPAL, METROPOLITAN INSTITUTION.

### 1.—THE CONDITION OF PRIVATE COLLEGES IN BENGAL.

The earliest private college affiliated to the University was that started by the late Pundit Ishwara Chandra Vidyasagara and called the Metropolitan Institution. It was conducted by him not on commercial principles. He did not appropriate to himself any portion of the income derived from the college, but spent the whole income on the college itself and sometimes contributed to its maintenance from his own private resources. The object was to make higher education accessible to young men of moderate means and to employ a purely indigenous agency. His institution was the first attempt at self-government in higher education. The existence of the institution depends on the fees of students, but Pundit Vidyasagara used to admit many students who paid no tuition fee, or only half the amount. The present managing body of the institution, the College Council, has continued the practice, but it can only admit a limited number of free students. Private colleges in Calcutta are supported by no endowments that I am aware of. Their dependence on the fees of students tends, in some cases, I fear, to a relaxation of discipline, but, paradoxical as it may seem, it tends also to ensure at least a tolerably efficient teaching. An incompetent professor soon shows his incompetence. The students do not tolerate him, and he has to be sent away. In colleges differently circumstanced, incompetent professors might be, and my information is they often are, thrust on unwilling students. Private colleges have scarcely any attractions to offer except good teaching and good results in the examinations. Therefore special attention is paid to teaching, and professors have to work harder than they need do where their tenure is secure and independent of the opinion of students. For fear of making my deposition lengthy, I cannot go into details to illustrate the general propositions I have been laying down. It would be a great mistake to suppose that the teaching in native colleges is generally inefficient. The reverse is the truth. It has to be remembered that private colleges have to work under a serious disadvantage. They do not as a rule get students from the well-to-do classes or the best and most ambitious students. Several scholarships are, under the conditions of their foundation, tenable only by students of the Presidency College. Colleges under European management have a greater prestige than those officered by natives. It is held more respectable to belong to a Government college than to a private college. A certificate from a professor of the Presidency College will more easily secure an appointment than one from a professor of a native college, European professors also are presumed to have a higher efficiency. As they are nearly all of them examiners, they are supposed to be best qualified for preparing students for examinations. With the students that private colleges generally get, it would be difficult for them to show better results than they do. They generally show at least as good results as the aided colleges and Government colleges in the mofussil. I could mention instances in which the highest places in particular examinations have been taken by students from native colleges. A brilliant student does not suffer from being in a private college, but no college can make a dull student brilliant. As regards discipline, it is by no means impossible to enforce it in a private college. I can say that it is enforced in the Metropolitan Institution. I need only add that something of the success of Government and aided colleges may be claimed by private colleges, for books written by professors in private colleges, and their "lecture notes" as they are called, are often used by all classes of students and contribute to the success of boys that read in grander institutions. Students in this country do not depend merely on the lectures of their own professors.

### 2.—STUDY OF ENGLISH.

English is not as well taught or learned as it should be. The prescribed text-books alone are taught, and they are taught and read in a mechanical fashion simply to answer the purposes of examination. The great thing which professors are generally anxious to give and which students are invariably anxious to receive is "Notes." Several professors incapable of lecturing are content only to give notes. It is notes that pay best in an examination. Hence

it is that a student may pass a good examination in English and yet be unable to speak or write the language with accuracy and grace. I speak from experience when I say that a European member of the Education Department, now retired, who was a distinguished graduate of an English University and a first-rate classical scholar, taught English books only by the method of paraphrase, that is, by substituting synonyms for the words of the text. He never looked the students in the face, never permitted them to ask questions, never made them speak or write, never spoke to them, hardly ever read out a passage in the proper style; but he kept his head hanging over the text-book and went on paraphrasing it. That was all his lecture. And that method has been followed by several who take him as a model. It is true that at the present day boys generally come from school imperfectly prepared. But a vicious system of examinations answers for a great deal. The selection of text-books is seldom happy, and the general curriculum is badly framed. The number of subjects for the Entrance as well as the F.A. Examination should be reduced. The course in English for both the examinations should be larger, more interesting, and better in point of style. A return to the system that prevailed in the seventies would be desirable. For the B.A. Examination also the course in English admits of improvement. Text-books in History and Philosophy should be selected with a due regard to style. The text-books of History now in use have generally no style. The book of selections now used as the course in English for the Entrance Examination is worthless and wholly unfit. The system of examinations has to be improved, and the Education Department has to be strengthened at least up to its old standard. It has to be remembered that a fine race of English scholars was brought up under the system which preceded the establishment of the University, and that among graduates those of an earlier date were men of better acquirements than those of to-day. I cannot admit that Englishmen are invariably better teachers of English than natives, or that native graduates of English Universities are invariably better scholars than those brought up in India. It would be possible to name Bengalis, whose education was wholly Indian, who might not even be able to put any letters after their names, who were nevertheless scholars that were equalled by few Europeans that came out in the Education Department. The complaint is often made that so few graduates turn out to be good writers. But how many of their teachers, English or Scotch, have made their mark as speakers or writers?

### 3.—LAW EDUCATION IN BENGAL.

Students after passing the B.A. Examination are required to attend a course of lectures in Law for two years before they are allowed to appear at the B.L. Examination. The attendance at lectures is generally a mere form. Students seldom care to follow the lectures, seldom possess the books which are lectured upon. They join the college which is nearest to their houses, which most accommodates them in the matter of the payment of fees, and which enforces as much or as little discipline as they are prepared to submit to. The largest number of law students in Calcutta are also students of the M.A. classes in the Presidency College. As a matter of course, they attend the lectures delivered in a building close by, the Albert Hall. But they constitute Law classes belonging to a college whose local habitation is elsewhere. The situation of the place for the delivery of lectures appears to be a potent attraction. It is after attendance at lectures is finished that boys begin to study their subject. Such a show is not worth preserving. At the same time it is desirable to have lectures that should be listened to. I would suggest that the B.A. Course should be a three-years' course from the Matriculation, that the B.L. Course should be a two-years' course after the B.A.; that there should be an examination in Law at the end of each year of lectures, and that after passing the B.L. Examination, one should be entitled to be entrolled as a Vakil of the High Court without any further test or apprenticeship. I have some objection to the curriculum, also. The present course includes a number of Acts some of which might be omitted. And it does not include a subject like Roman Law or Constitutional Law. A large number of books is prescribed, of some of which only fragments have to be read. This may be a good way of encouraging authors, but it means an unnecessary drain on the purse of students. The subjects are too many to be crowded into an examination of four days, and boys find it possible to neglect some subjects altogether if their object is only to pass. To distribute the subjects over two

examinations in two years would tend to ensure their being read. There is no reason why enrolment in the High Court should be delayed after the passing of the B.L. Examination. All English analogy is against the delay. To have a Central College of Law in place of law classes in different colleges would by itself be no remedy for the present evils. In this country no study is serious unless it has to be conducted in view of an examination, and the sole reason of the indifference of boys to lectures is that only one examination is held at the end of two years, and that some subjects may be neglected with impunity. Subjects like Equity, the Law of Real Property and the Principles of the Law of Evidence, are little cared for. Mere administrative changes will, therefore, be no improvement. And certainly Law is the very last subject in which the efficiency of natives to act as teachers will be doubted.

#### 4.—POSITION OF HISTORY IN THE UNIVERSITY CURRICULUM.

History occupies an insignificant place in the curriculum. It is compulsory only for the Entrance and optional for the F. A. and B. A. Examinations. It is thus possible for a young man to be a graduate without knowing more of history than is required for the Entrance Examination, that is with only a very elementary knowledge of the histories of England and India. For the F.A. one requires to read only two shilling primers on the histories of Greece and Rome. The course in history for the B.A. is somewhat elaborate, but it consists only of the histories of Ancient Greece and Rome, and of England and India. It includes no history of the Roman Empire or of Mediæval and Modern Europe. The pass course includes no treatise on the English Constitution. History is entitled, in my opinion, to a larger recognition. I would have the histories of Greece and Rome for the Entrance, some modern history for the F.A. and the histories of England and India and a somewhat full course of the history of Modern Europe for the B.A. Competent teachers of History, however, have been rare, and they are likely to be still rarer in the future. I distinctly remember the manner in which we were taught Elphinstone's *History of India* in the third year class of the Presidency College. The professor opened his copy of the book and asked the students to open theirs. He then made the boys read out one after another consecutive portions of the text-book. That was all his lecture. It might be useful as an exercise in elocution but it had obviously no value as instruction in History. The professor was a European, a graduate of an English University. He taught us Logic and Mental Philosophy in the second year class, History and a play of Shakespeare in the third year class. He rose to be Director of Public Instruction in one of the Provinces of India, and has now retired.

#### 5.—GENERAL REMARKS.

Within the limits to which I must confine myself I cannot say more than I have done on the four special points on which my opinion has been asked. I may be permitted to observe generally that the most essential reforms are the appointment of competent teachers, European and native, an improvement in the method of examinations, a shortening of the Entrance and F.A. Courses, and a limitation of the scope of the University. It is not fair to presume that a graduate of an English University is fit to teach any subject, and equally competent to lecture and to be an Inspector of Schools. For every subject specialists have to be obtained, men who not only know their subject, but are able to lecture. Classical scholars are not invariably competent to lecture on Philosophy, History or even English Literature. Whatever may be the Degrees instituted, and whether the University is a teaching or an examining body, there will be no improvement in education until and unless there is an improvement in the quality of the teaching and the style of the examinations. Mere official control will be no panacea. Fortunately, some hints at reform may be obtained from experience. The system that was in vogue before the University was established was in many respects sounder than the present. For the Senior Scholarship Examination the course in every subject was high enough for those days, but results were determined by the aggregate of marks. The present system by its insistence on a number of subjects encourages superficiality and cram.



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## MR. C. R. WILSON, PRINCIPAL, PATNA COLLEGE.

### PRELIMINARY OBSERVATION.

Before making any observations at all upon the defects and disadvantages of the present University of Calcutta I should say that—

- (1) In my opinion the best remedy for all our evils would be to transfer the University with all its institutions from Calcutta to some University town in the mofussil.
- (2) Although I am about to point out what seem to me to be defects I must at the same time declare that the University of Calcutta has many merits and has done much good work.

### (3) TEACHING UNIVERSITIES.

I think that the University of Calcutta should be given the power to become a teaching body, but I do not think it could actually exercise the power at present to any great extent. At present we have quite enough to do to get a University which will examine properly and colleges which will teach properly. Our first efforts should be directed towards improving what exists. We need concentration, not extension.

The pay of teachers is at present very poor. There is difficulty in inducing men of ability to become teachers at all. As far as I know the University has not sufficient funds to adequately endow professorships. If you impose further conditions upon teachers without offering them more pay, you make the profession of teaching still less attractive and increase the difficulty of getting good men to teach. In these circumstances the proposals about recognised teachers and University Professors seem to me to be premature.

Again if you have lists of recognised teachers, the tendency will be to force colleges to take only recognised teachers and professors. This is a serious infringement of the independence of the colleges and an attack upon their life. What college in Oxford would allow an external authority to dictate to it in its choice of fellows and tutors? The Principal of the College ought to be absolute in the appointment of the staff. It is a serious defect in the organisation of a Government College that he is not allowed to be so.

We want to raise the whole status of the college its principal and the teaching staff. The question is whether in attempting to form a body of University Professors and recognised teachers you will not still further lower that status.

If the University conducted its examinations properly, it would detect and bring to light the difference between good teaching and bad teaching, and the inefficient colleges would die a natural death. Because the University of Calcutta has not succeeded well in its primary and comparatively simple functions as an examining body it is proposed to help it out by giving it a number of new and much more complex functions. Because it has failed to pass as an examining body, you are going to promote it to the higher class of a teaching University. Because it has been found faithless in few things it is to be entrusted with many things. But what reason have we to think that it will succeed better in the more difficult task? Why not try to first make it efficient as an examining body? In the University, as at present constituted, the teacher is nowhere. Let us first get a University of teachers before we talk about a teaching University.

In short I agree with Mr. Pope, the Director of Public Instruction of Burma, and I am not in favour of the proposal to make a list of recognised teachers and to compel candidates for a degree to receive instruction in colleges from teachers appointed or recognised by the University. This should be left to the College authorities, the University confining itself to the question of affiliation which should be granted only on very definite and stringent rules. I am not of opinion that the proposed supervision by the University will be effective.

When I recorded the above observations I was dealing with the question of a teaching University as the heading implies. When I was examined before the Commission I was at this point asked my views about the inspection of colleges. It was suggested that in order to see that the affiliated colleges were working properly some inspection would be necessary. I do not altogether oppose the inspection of colleges. I think the University when affiliating a college should impose definite and stringent conditions and should stipulate for the right of inspecting the colleges periodically to see that the conditions are observed. Colleges already affiliated would be allowed a fixed time to comply with the new conditions. I think that the inspection should be limited to seeing that the conditions of affiliation are observed. I do not think there should be any interference with the teaching or other internal economy of the college. If the college is under proper management it will be much better able to attend to these matters than the University, which is at present mainly composed of non-teachers and which, in my opinion, will never make a good inspecting agency. If the college is not under proper management, if, as has been suggested, it changes its staff as soon as it is affiliated and substitutes inferior teachers, then I say that such a college is not fit to be affiliated and has forfeited all claims to consideration. Affiliation is a gift, an act of grace. It can be and ought to be withdrawn from the undeserving. In fact it is the only real remedy which the University has in dealing with an unworthy college. A college which cannot be trusted to fulfil the pledges which it gave when it was affiliated cannot be trusted at all. For these reasons it is submitted that the University should proceed very cautiously in attempts to interfere with the teaching and internal economy of the colleges and should rely mainly on stringent conditions for affiliation.

I would add that over-legislation and over-regulation are faults only too common in India. If you discover slackness in the management of a students' library your Executive Committee will immediately pass forty new rules. Two months hence you will find that not one of those rules is observed. So if in the University we find slackness and abuses, instead of trying to make effective the machinery and rules we already possess, we proceed to set up new machinery and pass new rules. For my part I do not believe that the new rules will be any better than the old rules as long as the men are the same. If you had the right men the old rules would do well enough. We want new men, not new rules. Give us a university of teachers and we will see about a teaching university. On behalf of the colleges I object to being placed to any greater extent under the control of a body of amateur educationists.

#### (4) SPHERES OF INFLUENCE.

I am not aware of any difficulties or disadvantages in this connection, hence I do not understand the importance of the question.

#### (5) CONSTITUTION—THE SENATE.

I reckon that there are about 190 members of the Senate. Of these about 80 have no qualifications that I can see entitling them to be fellows. I should certainly say that fellowships had been given them by way of compliment. Of the remainder some 60 are teachers and some 50 are men of eminent learning. Of these about half are in Calcutta and are likely to attend the meetings of the Senate. I am certainly of opinion that the Senate needs a more definite constitution, and that the qualifications of persons to be appointed should be clearly prescribed. If fellowships are vacated by non-attendance, then fellows whose official duties station them out of Calcutta should be allowed to come to Calcutta so many times a year to attend meetings, and be paid their travelling expenses. The tenure of fellowships might be limited to seven or even five years with the possibility of re-appointment. In this connection may I be allowed to say that I do not understand upon what principle the *ex-officio* fellows are appointed or again upon what principle the Vice-Chancellor is almost always a Judge of the High Court and not an educationalist. It is suggested that this is an honour to the University. It is obviously a dishonour; the mere suggestion that it is an honour implies a mean opinion of teachers and teaching. Would the army consider it an honour if a judge of the

High Court were made Commander-in-Chief? I would suggest with all deference that the Vice-Chancellor should, as a rule, be selected from the heads of colleges as he is in English Universities. No head of a college has ever been made Vice-Chancellor of the Calcutta University. It thus appears that the highest posts in the world of education and teaching are not open to teachers and educationists. If a young man of good abilities remains a teacher, he may become the head of a college, but he will probably not be even a Fellow of the University. If he becomes a pleader, he may become a Judge of the High Court and Vice-Chancellor. In these circumstances is it surprising that young men of good abilities prefer to become pleaders, and that the profession of teaching is of little consideration.

#### (6) THE SYNDICATE.

The colleges and teachers are not adequately represented on the Syndicate, most of the members are not teachers. The Principal of the Presidency College is not a member of the Syndicate but the Registrar or servant of the Syndicate. Thus again the teacher is subordinate to the non-teacher, and Government sanctions this degradation. In Oxford the Hebdomadal Council consists of the Chancellor, the Vice-Chancellor, the Proctors, six heads of colleges, six Professors of the University, six members of Convocation of not less than five years' standing. If we followed this scheme in Calcutta, the Syndicate might consist of the Chancellor, the Vice-Chancellor, the Director of Public Instruction, the Senior Inspector of Schools, six heads of colleges, six Professors in colleges affiliated to the University, six representatives of the Faculties, three for Arts and one for each of the others. I am of opinion that some such scheme should be adopted in order that educationists of every 7 kind should be well represented on the Syndicate.

#### (7) FACULTIES AND BOARDS OF STUDIES.

I think that the Faculties like the Senate should be reduced to much smaller numbers. Only experienced teachers and persons of distinction in any particular Faculty or branch of Study should be appointed members of the corresponding Faculty or Board of Studies.

#### (8) GRADUATES.

I am altogether opposed to the election of fellows in any form. It is absurd in theory and in practice gives rise to abuses. If fellows must be elected I should prefer to leave the election to the Syndicate rather than the Senate; certainly not to the graduates. I think that the University should be empowered (a) to admit graduates of other Universities, who are teaching in affiliated institutions, to the corresponding degree in the Calcutta University; (b) to confer the degree of M.A. *honoris causa* on persons of distinction appointed to hold high office in the University or the affiliated institutions.

#### (9) STUDENTS OF THE UNIVERSITY.

No doubt large numbers of students are sent up to the Entrance, F.A. and B.A. Examinations who should never be sent up at all. The obvious remedy is for the recognised schools and affiliated colleges to introduce test examinations and to refuse to send up students who fail at these. The University too should have strict rules as to affiliation and recognition and should disaffiliate and withdraw recognition from institutions showing bad results. In the Patna Collegiate School there have always been test examinations. I have extended the system to the Patna College.

With all this, it is still quite conceivable that even if there were a test examination it might be made so lenient as to be quite ineffective. If a student is not sent up he goes to the head master or principal, as the case may be, and threatens to leave. There is nothing in the transfer rules to prevent this. In order to strengthen the hands of head masters and principals there ought to be some provision to prevent such transfers. It might be laid down that the head master or principal, as the case may be, should forward to the registrar a list of

students detained. Should the head master or principal, as the case may be, object, the transfer of such students cannot be allowed without the orders of the Syndicate.

I do not see how the University can "see that the colleges do their duty" in regard to the physical and moral welfare of the students and yet not "take the discipline of students away from the colleges."

In Calcutta we have the Calcutta University Institute which was founded by Babu Protap Chandra Mazumdar and supported by Lord Lansdowne and Sir Charles Elliott and of which I was for many years Secretary. In my day the Institute was well supported by the students. The difficulty was to get teachers to take sufficient interest. I still think that the Calcutta University Institute if properly supported might do a great deal for sound education. The Institute co-operated with the Government in making the Marcus Square Recreation Ground, which is especially intended for the use of students. I should like to see this ground very much enlarged and extended.

I should fix the minimum age for matriculating at 16 or 17. The University course is for grown men, not children. Guardians who send up boys of 13 or 14 to the University are unmindful of their best interests. In this connection I deprecate the use of the term "boys," which is sometimes found even in official documents, to describe the students of Colleges.

#### (10) UNIVERSITY TEACHING.

I do not see how the University can be made a teaching body at present. Supposing University professors were appointed, what would the University expect of them? Would the University professor be required to lecture frequently? In that case he would have little time for original study and thought, and his lectures would not be much superior to those of the professors in the college, or would the Calcutta University professor be like an Oxford professor? The duties of every Oxford professor are thus defined in the statutes—*Statuta et decreta Universitatis Oxoniensis, 1900, page 34*. It is his duty to give instruction to students, assist the pursuit of knowledge and contribute to the advancement of it, and aid generally the work of the University. As for instruction the professor has to give every year a certain number of public lectures, the maximum number being forty-two. He is also to give students attending his lectures advice and informal instruction and occasionally to examine them. But I think it is generally supposed that the most important part of his duty is to contribute to the advancement of knowledge, and I believe that there have been and still are professors at Oxford who give practically no instruction at all. It is in fact obvious that if a professor is engaged in original research he cannot have much time for instruction, and further that if his lectures are to be real contributions to the knowledge of the subject, he cannot be expected to deliver very many lectures in a year. The third part of the duty of a professor as defined in the statutes of the University of Oxford is to aid generally in the work of the University. In Calcutta, I suppose, the University professor would try to guide the teaching and examining of his subject along correct lines. The salary of an Oxford professor varies, but some I should suppose receive as much as £500 a year or Rs. 750 a month. If it is thought desirable to make a beginning of a teaching University would Government lead the way by establishing imperial professorships of the Oxford type?

#### THE TEACHING OF ENGLISH.

As regards the teaching of English it cannot be denied that the knowledge of those who matriculate is inadequate. In order to ensure a better knowledge of English reform might proceed on the following lines in the Entrance Examination:—

- (a) The text-book might be shortened and the importance of a knowledge thereof diminished.
- (b) Greater importance should be given to composition and to translation from the vernacular to English and *vice versa*.
- (c) Dictation and oral examination should, if possible, be introduced.
- (d) In short more opportunity should be given to the candidate of showing a colloquial knowledge of English.

The means of reform which suggest themselves are—

- (a) to raise the percentage of pass marks to (say) 60 per cent.
- (b) to increase the number of papers in English from two to four.
- (c) to increase the number of examinations in English for matriculation from one a year to four or five a year so as to reduce the number of candidates to be dealt with at a time.
- (d) to diminish the number of centres, if possible, to examine only in Calcutta so that oral examination may be possible.

I must here add that I agree with the Principal of the Presidency College in the view that compulsory vernacular education will prevent the improvement and spread of the knowledge of English.

#### TEACHING OF HISTORY.

As to the teaching of history I submit a note by Babu Jadunath Sarkar who has had experience in teaching history in the Patna College and elsewhere, and who is doing good original work in Indian history. With his observations I, on the whole, concur.

Mr Arden Wood, who gave evidence, as to the teaching of geography, complained that it was not studied scientifically in the Calcutta University and that it was given a position of inferiority. I have the same complaint to make with regard to history. It is studied as a mere memory subject not as a connected series of causes and effects obeying scientific laws. One local writer on Indian history actually begins his book with the statement that "India has not had a continuous history." It is, I think, quite time that the University of Calcutta recognised that the history of India is continuous and progressive, that like all history it comprises a series of events proceeding from causes according to scientific laws, and that the study of history consists in the study of these laws. The study of history further includes the criticism of historical evidence according to the criteria of credibility. Lastly, I do not think the University has sufficiently recognised the moral effect and significance of the study of history. It is through history properly taught that we should aim at training good citizens and good men. I agree with Babu Jadunath Sarkar in thinking that hitherto the University has almost altogether ignored these aspects of history especially Indian history. Both in its examinations and in its text-books history is treated as a mere catalogue of events to be learnt by heart. In the text-book adopted for the present Entrance course I am glad to see that some attempt has been made to remedy this mistake, but I think there is still great room for improvement in the Entrance text-book on these lines.

In this connection I must respectfully beg leave to bring to the notice of the Commission the objectionable character of the text-books recently prescribed for the lower classes of high schools in the Presidency Division. Two books have been prescribed. One of them is full of the grossest blunders in History and in English. Yet of this book thirty-five thousand copies have been printed and sold, at least I suppose this is what is meant by the words "thirty-five thousandth" printed on the cover. It is also approved by the Central Text-book Committee. It further appears from the notice at the back of the book that the same author has also on sale—

- (1) A catechism of Physical Geography, 4 annas.
- (2) Outlines of the History of Greece, 4 annas.
- (3) Possible questions in Indian History, 6 annas.
- (4) Catechism to the Science Primer, 4 annas.

I ask the Commission how it supposes that we can teach our boys English or History when such a manual is prescribed by the Department. How are we to discourage cribs and keys, when the authors of cribs and keys are promoted to posts of authority in the department?

My main objection to the second book was that it was full of misstatements calculated to bring discredit upon the English rulers of India. But I see that in the last edition most of the objectionable passages have been withdrawn. It

is still full of other mistakes, but they are not of such grave importance. However the fact that thousands of copies of this work full of abuse of the English rulers have been published and circulated under the auspices of the department suggests matter for serious consideration.

It is, I think, a matter for consideration whether all text-books on Indian history should not first be referred to the Government of India (Foreign Department) before granting copyright.

History teaching is divided into three stages.

(a) The primary stage for young children. In this stage the child should be told picturesque biographies, lively descriptions of remarkable events, the object being to create centres of interest.

(b) The intermediate stage in which the student should read brief and lively histories calculated to excite curiosity and stimulate appetite for increased knowledge. Here if we follow as far as possible the German system, we should have I think —

- (i) an outline history of Greece ;
- (ii) an outline history of Rome ;
- (iii) a general sketch of the history of the world ;
- (iv) a brief history of England ;
- (v) a brief history of India.

In the Calcutta University we have, it would seem, divided this stage into two. In the Entrance Examination we have brief histories of England and India, in the F.A. Examination we have the histories of Greece and Rome.

As to the Entrance Babu Jadu Nath Sarkar wishes that longer and more interesting histories may be prescribed and that Physical Geography and the Indian Citizen omitted. Perhaps it would be better to adopt the suggestion of the Committee recently appointed by the University to consider the causes of failure in the B.A. Examination. Select a history text-book which is written in a good English style and use it as the English text-book as well as the history text-book.

In the F. A. Examination, as Babu Jadu Nath Sarkar says, no remedy can be hoped for so long as we have such a multiplicity of subjects. The course must be bifurcated or divided in some way, so that a candidate need only take up four subjects to pass. If this were done, the history course for the F.A. Examination could include the five branches of the intermediate stage as detailed above. Short histories of Greece and Rome and general sketch of the history of the world would be new subjects, but the histories of England and India would need little more than revision. The teacher should however be expected to make some comparison of the different histories and to indicate to some extent their connection.

(c) In the final stage of historical study the teachers' object is to encourage reflection upon historical phenomena leading them to study (i) the criteria of credibility and historical certainty, (ii) the causes of events and the history of institutions. The means to this is the study of some period of history as narrated by some first class historian, *e.g.*, Napier, Orme, Macaulay.

(b) The study of some period of history with reference to the original authorities, *e.g.*, the reign of Akbar, or the reign of Asoka.

Here again in the Calcutta University we should divide this stage into two or three.

In the pass B.A. Examination we might introduce the study of first class works dealing with special periods or special aspects of Indian history ; thus there is a great deal of literature now about the Buddhist period which might be studied with advantage.

In the B.A. honour history course and in the M.A. course we might encourage the study of original authorities.

In the B.A. course I agree with Babu Jadunath Sarkar in the suggestion that an honour candidate should be allowed to pass separately in the three subjects which he offers. I should go further. I should like the pass candidates

to be allowed to do this as at Oxford. The honour candidates I would allow to pass in one subject only as at Oxford, or in one honour subject with pass English, if the honour subject was not English. This would allow us to raise the standard of the B.A. Examination both for a pass and for honours.

I do not think it would be desirable for the University of Calcutta to attempt to provide for a school of theology. The theory of theology cannot be divorced from practice. Even in Oxford there are many leaders of religious thought who hold that the study of theology as a subject for examination is injurious to the spiritual life of the student.

#### (11) EXAMINATIONS.

Here many of our difficulties arise from the large numbers of candidates. This is the cause of delays, errors and irregularities, which bring discredit upon the University.

It is also I think highly discreditable to the University that it has no proper buildings of its own in which to conduct examinations and that it offers no remuneration to the superintending officers who are forced by departmental pressure to discharge these duties for the University. The Commission perhaps may not be aware of the strong feeling which exists upon this subject. Every year for about two weeks the superintending officers have to attend from about 9 in the morning till 6 in the evening with hardly any intermission or rest and watch over the holding of the examinations. For all this they do not even receive so much as the thanks of the University. At the same time the whole work of the college is stopped. For the whole of this month there can be no work in the Patna College. The candidates dirty and spoil the buildings in which they are examined as I showed to the three members of the Commission who visited the Patna College. In order to remedy these abuses, I think it should be seriously considered whether examinations could not be held more frequently and limited to Calcutta or to a very few centres where the University should provide special buildings of its own for examinations. These special buildings would also be available for the lectures of University professors, if any are appointed, just as the new schools are at Oxford.

#### (12) REGISTRAR AND STAFF.

Upon this I have nothing to say.

#### (13) AFFILIATED COLLEGES.

As regards the working of a Government College I should wish with all respect to represent the inconveniences that result from the constant changes of the staff which are said to be necessitated by the departmental system. When a Principal has carefully arranged the work of the session, it is very discouraging to find that one of his principal teachers is taken away and another man of different qualifications sent instead. How can you teach history when you have no teacher. This has been my position during the past year. At the beginning of the session my one professor who could teach history was taken away and a graduate in philosophy came instead. I therefore called up a master from the collegiate school to teach history. After about two months he was sent away to Chittagong. I was consequently left with no one. After two months more another change of professors was made. And then after another two months or so I received back my original professor.

These constant changes are disheartening to the professor no less than the principal. The professor teaches a particular subject to a particular class for some two months. Then he is sent off to teach a different subject to a new set of students and so on. How under these circumstances can he take any interest in the subject he is teaching or in his pupils? Before he has time to know his pupils, before he has time to develop his subject, he is summoned away to do something else. While the teachers move, the students stand still. The evils which arise from the constant shifting of the staff are very real, and I earnestly hope that some remedy will be found.



With regard to the students in the college, I think that the Government should assign a certain number of Government scholarships to particular Government colleges. These scholarships should be awarded as at Oxford and Cambridge for high proficiency in some one subject. The scholars should be required to read for honours, and honour courses of study should be altogether separated from the pass courses.

#### (14) UNIVERSITY CEREMONIES.

Another point on which I wish to insist is the importance of improving the ceremonial of the University. Ceremonies have an important educational effect everywhere and especially in the East. At present the ceremonies of the University are of a most meagre kind. There is only one degree day in which all the candidates are huddled together, the B. A.'s having been kept waiting about nine months for their diplomas. I object to giving degrees in this hugger-mugger fashion. There might be two degree days in the rains for giving degrees in Arts and Engineering. The Vice-Chancellor should hold these convocations. If absent, he should nominate the head of some College Pro-Vice-Chancellor *pro hac vice*, e.g., the Principal of the Medical College, or of the Civil Engineering College, or of the Presidency College, if he were not as at present in the false position of Registrar. He might also select some one to deliver the address to the candidates as Public Orator. At the time of convocation all the Fellows wait for the Chancellor at the door of the Senate House and when he comes form what they are pleased to call a procession to the dais at the upper end of the hall. I should call it a disorderly moving mass. Why cannot convocations be managed like *durbars*? Only the members of the Syndicate should wait to receive the Chancellor, or Vice-Chancellor. The others should be already seated in their places. There should be a guard-of-honour at the Senate House. Then let us have a real procession. At *durbars* we have *chobdars*, in Oxford we have *bedels* with maces. I think the University should have at least eight *chobdars* for the convocations, two to precede the Syndicate and six the Chancellor or Vice-Chancellor in the Chancellor's absence. The Chancellor should have his train held up by a doctor of laws or by pages. Perhaps this is now done. I have not seen the new robe presented to the University by the Chancellor. Candidates for the M.A. degree should kneel before the Vice-Chancellor when receiving their diplomas. The Vice-Chancellor should order all who are engaged in supervising University examinations to wear full academical dress, including their hoods. Graduates appearing at higher examinations should wear academical costume, i.e., their gowns. At present graduates are directed to wear white chapkans. I should have thought black better. This question might be referred to the head of the School of Art. All the colours of the present hoods are very crude and ugly. Academical costume, i.e., cap and gown, should be worn at all meetings of the Senate. At these meetings one *chobdar* at least should attend the Vice-Chancellor. The Vice-Chancellor might also empower certain persons, the head of the local college, or the District Judge, to hold local convocations in certain centres for those candidates who cannot come to Calcutta. At present such candidates receive their diplomas by post, a most undignified proceeding. Certain persons in different centres should be appointed Pro-Vice-Chancellors *pro hac vice* and be directed to hold local convocations, appointing some one of repute locally as a speaker to give an address to the candidates. I have done this twice in Patna. Government should order all professors and lecturers in Government colleges to wear their caps and gowns when lecturing, also all graduates attending lectures for higher degrees. In short the University should consult the *σεμνὸν πρόσωπον* much more than it does, and not try to shuffle through its duties with a minimum expenditure of time and trouble. It is of no use to tell the average man that learning is a noble thing to be held in the highest honour when he sees no outward signs of its honour and dignity. He will think meanly of what is done meanly. But if the functions of the University are performed with due solemnity, their importance and dignity will soon be recognised.

C. R. WILSON,  
Principal, Patna College.



A University exists for—

- (1) The diffusion of knowledge, and
- (2) The Training of Research Students, who may add to the world's stock of knowledge.

## SECTION I.

The present system stated and examined.

1. *The Entrance Examination.*—The students have to read two books on History with four other works.\* Hence History is only  $\frac{1}{3}$  of an entire subject, and carries only  $\frac{1}{10}$  of the total number of marks (60 out of 600).

The usual method of teaching consists in the master making an "abstract" of the text-book by extracting the so-called "important" sentences and phrases of a chapter and then weaving them into a paragraph or two. This abstract the students commit to memory, and this they are taught to reproduce verbatim in their class exercises and at the University Examination. The rules that are drawn up by the Head Examiner in History for the guidance of the Assistant Examiners include a collection of "points" for each answer. These "points" form a dry catalogue of the names of persons, battles, statutes, etc. The Assistant Examiners have to pay attention to these "points" only, and have to assign marks in proportion as the answer corresponds to the above-mentioned skeleton-analysis. Originality, whether of thought or of composition, is entirely out of place in such an examination. The memory is the only faculty that is exercised.

The text-books, too, are such as merely state facts dogmatically and briefly, without giving the process of reasoning or going into that detail without which no narrative history can be made interesting. The Philosophy of History and Historic Criticism are things not even dreamt of by authors, examiners, and teachers in the Entrance Examination. For several years before 1887, most students used to commit to memory a "Sketch" by K. C. Mánná to the exclusion of their text-books. But the unexpected character of the questions set that year caused greater attention to be paid to the text-books, which, however, are now committed to memory in the abstracted form described above.

2. *F. A.*—In the F. A. Examination History is very much neglected; it is one out of six subjects and carries less than  $\frac{1}{10}$  of the total marks, (60 out of 630). The students have to read two Shilling Primers† of about 125 small pages each. Not more than two lectures a week are delivered in History, and the students merely prepare an “Analysis,” either dictated by their teacher or printed by some note-writer, which entirely serves the purpose of passing the examination.

In the Entrance History class, a teacher occasionally tries to enliven his students by reading out of "*Half-Hours of English History*" and other popular works; but they excite little interest, as most students know that such things do not "pay" in the examinations as now conducted. Similarly, attempts to read Plutarch's *Lives* or scenes from Shakespear's Roman Plays in the F.A. History class have been made only to be abandoned, as very few students take any interest in things lying outside their text-books.

3. *B.A.*—Here History and Political Economy taken together form one subject out of three. Though English and History are of the same importance as regards marks, yet History is very much neglected in all colleges.† The entire History course cannot be gone through in the class. The text-books are

\* General Geography, Physical Geography, Science Primer, and Lee-Warner's *Indian Citizen*.

† Creighton's *Rome* Primer, 18 mo., 121 pages and Fyffe's *Greece* Primer, 18 mo., 123 pages.

‡ Compare the number of lectures delivered weekly on the two subjects in the Presidency College :—

[illegible]

read by the students, as there are no printed "cribs" and the teachers cannot epitomise all the prescribed books. A little "outside information" is given in the form of notes on constitutional points derived from Stubbs, Hallam, Maine and others. But no attempt is made to teach the Philosophy of History and Historic Criticism. The present text-books are quite unsuited to the purpose of such instruction. Moreover, the students cannot be made to take interest in lectures on the Philosophy of History, unless questions based on it are set in the University Examination. So long as B. A. History papers\* continue to be what they are, the study of History will be a mere loading of the memory.

4. *M.A.*—The above remarks apply in great part to the M. A. History also. Here, too, the questions are not such as to make originality "paying." A student of average intelligence who pins his faith to "cribs" may be sure of a second class, while an original worker with a badly primed memory runs the risk of failure. The chief defect of the present M. A. Course is its multifarious nature. (See calendar.) Hence, the students do not get the chance of constructing the history of a definite period with the help of original materials; they only master the finished product of well-known historians. No training is now given in Original Research or even in Historic Criticism. The candidate has to spend so much time in mastering the thoughts of others that he has no opportunity to think for himself!

*Teachers.*—History is the least cared for subject in our colleges. No professor is set apart for it, but the junior professor of English or Philosophy is invariably made to teach History in those few hours in which he cannot be employed in the more profitable or more important work of lecturing on English or Philosophy,—his main subject. The total number of lectures delivered on History in all the classes put together† does not amount to the total weekly work of a professor, *viz.*, 18 lectures. Hence, specialisation of teaching is never attempted in History. Next to the character of the University Examination Questions, this is the most important cause of the present bad teaching of History.

## SECTION II.

### THE REMEDY SUGGESTED.

#### (A) *Diffusion of knowledge.*

In the B.A. Honour and M.A. Examinations, research ought to be introduced. But in the three lower examinations, as research cannot be expected, the present system of diffusion of knowledge should be maintained in principle, but with important changes in its practical working.

1. *Entrance.*—The text-book should not contain a dry catalogue of events, but should distinctly emphasise the continuity of the History of a country and teach a rudimentary philosophy of history; *i.e.*, it should teach how a country's present is the outcome of its past, and what moral the story of a nation teaches us. Examination questions should be framed accordingly. If Physical Geography and *the Indian Citizen* were omitted, longer and more interesting histories might be prescribed for the Entrance Examination.

2. *F.A.*—No remedy can be hoped for so long as the multiplicity of subjects is not done away with, or the entire course is not bifurcated. When that is done, History should carry one-fourth of the total number of marks, instead of  $\frac{1}{10}$  as now. The reform as regards the text-books and Examination questions proposed for the Entrance, should be followed here too.

3. *B.A. (Pass).*—Here the course may be safely enlarged by increasing the number of books on the *same* country, and not the number of countries of which the histories are to be studied. For instance, we may prescribe a smaller *History of England* than the present course (Gardiner's), while setting 4 or 5 books on India, *viz.*, one General History of India and 3 or 4 works (History, Biography, History of Literature or Civilisation) dealing with special periods or

\* The B.A. Honour History Papers of 1891 form an exception to my remarks; they are not so bad as the papers of other years.

† First year—2 hours a week; 2nd year—2 hours; 3rd year—3 hours; 4th year—3 hours; total—10 hours, or, when there is an Honour class in History, 14 hours, a week.

aspects of India's national life. Examiners should be carefully instructed not to ask for minute details or mere narratives of events,—which encourage cram,—but to set general questions and especially questions on the philosophy of history.

(B) *Advancement of Research.*

Research students are a small minority in all countries. But here they do not exist at all, because—

- (i) Here research opens no career.
- (ii) Our degrees are conferred for mastering certain prescribed works; and hence research does not pay even in examinations.
- (iii) We have no body of teachers wholly engaged in training and guiding research students.

The following remedies are proposed :—

- (a) Research students must be concentrated in one college or town.
- (b) A few professors, recognised by the University, should be appointed to teach such students, to the exclusion of any other kind of lecturing.
- (c) The professors' report on a student's work done under their eyes previous to the examination should be one of the factors determining the result of his University Examination. The student's work in the class-room\* would thus correspond to the "practical" examination which we hold in Science. Mere "book-work," the mere mastering of previously discovered knowledge, should be discouraged; and no rigid standard of paper-examination, no minutely defined intellectual test, should be insisted on. The more developed the system of examination, the more elaborate will the special preparation for that particular examination be, and the less room will there be left for freshness of thought or originality in the student. This is the bane of modern Universities, even in England. [See Fyffe's Article on Universities in T. H. Ward's *Reign of Victoria*, Volume II.] The research student must, therefore, be examined according to a standard differing from that of the three lower examinations.
- (d) The recognised professors should have a share in examining the candidates. In the present state of Indian Libraries and Museums, historical research in India necessarily means research in Indian History. But, for several years—possibly decades,—to come, the most desirable form of research will be the extraction and refining of the raw materials of Indian History. In this work, an examiner appointed from the outside can hardly do justice to a student's special research. It is only the professor under whose eyes the work has been done, who knows whether it is good or not and can estimate the intellectual effort which it has entailed on the student.
- (e) In B.A. (Honours), a candidate may be allowed to offer to be examined in only one subject in one year; but he would receive his degree after passing in the other two subjects. Clever students will pass in two (Pass) subjects in one year, while those who are dull will pass in one subject only in one year. Thus, the B.A. Course will be finished in two to three years. This will tend to soundness and depth of knowledge.
- (f) A tolerably permanent Board of Examiners, *i.e.*, a Board of (say) six members, of whom not more than three may be changed in any three years,—should be established, in order to secure uniformity of standard and remove that element of uncertainty as to the character and number of the questions† and the conditions of valuing answers, which now greatly depresses our students.

In the Rurki Engineering College, a student's marks in all the weekly examinations of his two years of are carried forward and added to the marks obtained by him in the final examination; the total thus determines the student's position in the list of passed students. I propose something akin to it in M.A. History.

† Compare the Premchand Roychand Studentship Questions in History for 1895 with those for 1897, as an illustration of the important part played by "personal equation" even in our highest examinations.

- (g) In the B.A. Honour and M.A. Examinations, twice the number of questions required to be answered should be set, in order to offer a choice to the candidate. The papers should not be too long. In the P. R. S. History Examination of 1897, *ten* different questions had to be answered in *three* hours! I suggest five questions for a three-hour paper and nine questions for a five-hour paper.
- (h) The Madras plan of setting several papers on the same subject may be followed, in order to discourage shallowness.
- (i) In the M.A. Examination, two out of the six papers now set may be allowed to be answered with the help of a library, but within the usual time-limit.
- (j) No minimum of marks\* should be insisted on in any paper, but the aggregate should be raised to 40 per cent. in B.A. Examination and 45 per cent. in the M.A. Examination. This would secure greater depth and discourage shallow versatility.

*Curriculum :—*

4. *B.A.*—Honour History, as now, with the following modifications:—

- (i) Indian History and Classical History should be mutually exclusive.
- (ii) A definite period of History with reference to original sources should be studied, in addition to the present course.
- (iii) A General Universal History may be added to the present course.

Freeman's *General Sketch* will do for Europe.

5. *M.A.*—Substitute the following in the place of the present multifarious course:—

- (i) First paper—English Constitution (as now).
- (ii) Second paper—A period of European History from standard authors (as now).
- (iii) Third paper—General Indian History, including History of Literature and Civilisation (a much wider course than the present).
- (iv) Fourth paper—A period of Indian History with reference to original sources.
- (v) Fifth paper—The Candidate's special research.  
[Papers IV and V may be answered in a library and should be examined by the "recognised" professors.]
- (iv) Sixth paper—Political Science.  
[The candidate should undergo a simple "practical" examination in Epigraphy, in addition to answering the above six papers.]

### SECTION III.

#### *Difficulties in the path of Success.*

- (1) Want of competent teachers solely engaged in the teaching of History.
- (2) Want of a competent and permanent Board of Examiners.
- (3) Difficulty of arranging co-operation between the "recognised" professors and the "outside" examiners.
- (4) Want of students willing to carry on researches which yield results only after years of work.
- (5) Absence of any degree and scholarship (except the P. R. Studentship) for rewarding post-graduate research; for no research worth the name can be expected within two years of the F.A.

JADU NATH SIRKAR,  
*Professor, Patna College.*

\* The superiority of the scholars of the Hindu College to our students was due to their not having been compelled to secure a minimum of marks in *every* subject. It is difficult to exaggerate the depressing effect of the "minimum" rule upon the best students of the present time.

MR. H. R. JAMES, PROFESSOR, PATNA COLLEGE.

I conceive the test of English at the Entrance Examination to be absolutely fundamental, so much so, that until this has been set right, it is little better than lost labour to consider any other of the questions raised about the University. The reason is quite simple. The whole course of education is based on the supposition that the teaching is to take place in English. It requires no argument to prove that, unless those who listen to lectures in English and study English books have some considerable facility in reading and understanding English enough,—that is, to follow English lectures intelligently,—they cannot possibly learn anything. I can say positively that a great number—I am not prepared to say what proportion—of the students, who read for the F. A. after passing the Entrance Examination, are not able to understand the books, they are required to read, or to follow their lectures properly. They can only just take down what is dictated slowly; very few, if any, can really take notes. This is stated positively as the result of experience. But any one who studies the conditions prescribed for the Entrance Examination, the papers actually set, and the standard of passing, may see for himself that no security is afforded that one who passes the examination shall have that minimum familiarity with English as a living language, that will ensure his understanding his lectures and text-books. It will be seen that it is quite possible to pass by means of repetition and the working up of a text-book of selections. Two papers are set, one described in "Rules for Examination"

(Calendar 1901, page 151) as the text-books and questions on Grammar; the other as (i) Translation from a vernacular, (ii) questions on English composition. To the first paper 120 marks are assigned, 80 to the second. The number of marks required to pass is 66. Of these 16 may be obtained on poems learnt by heart. In the paper of 1900, only  $7\frac{1}{2}$  marks appear to be assigned to Grammar (that is to parsing), the remainder to literary questions on the text-book of the familiar type. In the second paper 26 marks are given to translation from the vernacular, 7 to an original letter of 100 words and the rest to Grammar, problems in idiom, and that perversely ingenious exercise—the correction of samples of bad English. One knows that many Indian students with an extraordinarily weak knowledge of English do as a matter of fact pass this test. One gradually learns that the Indian student has an extraordinary faculty for learning words by heart without understanding their meaning. If one goes back to the papers set and reads them in the light of these two facts, it is not difficult to see why the Entrance Examination fails in that which should be its main function, that is, in being a test of fitness for the Calcutta University Courses. There is, moreover, a significant omission in the special rules for the Entrance Examination (Calendar 1901, pages 150-152). In the case of the F. A. and B. A., all examiners are charged (Calendar 1901, pages 152-153) to take the correctness of English into account in all cases where the answers are written in English. There is no such requirement in the case of the Entrance Examination.

Now although it may be difficult to solve the problem of a matriculation examination in India quite satisfactorily, it is quite easy to correct some of the defects of the above scheme. For instance, less marks may be given to the text-book questions, the marks for repetition may be done away with, more weight may be assigned to translation and composition, I should suggest dividing the 200 marks equally between four papers, 50 marks to each: (1) Translation from a vernacular into English, (2) original composition (supplemented by an oral examination, if possible), (3) Grammar, (4) Text-book. Then the pass marks should be raised. I should myself advocate very short and easy papers (much shorter and easier than this year's) and a relatively high standard, 50 or 60 per cent. But I would acquiesce in the 40 per cent. proposed, if the general opinion is that more than this is at present unworkable.

I should be strongly in favour of the Preliminary Examination in English suggested by Mr. Edwards.

Another possible expedient is to do away with prescribed books in the examination. This experiment was tried in 1874 with apparently satisfactory

results. It was then suddenly discontinued (in 1878) and text-books were again prescribed. No reason for the second change appears in the minutes.

Another wholly different alternative has been suggested to do away with the University Entrance altogether and leave it to the colleges to fix their own standard. This would at least have the effect of securing that teachers should reap as they sowed. Very possibly the standard would adjust itself better this way than any other.

But the details are disputable: what is beyond dispute is that before there can be hope of any general improvement in the ultimate results of the University system, the English standard of the average undergraduate must be raised from the beginning and raised considerably.

I am inclined to think that for the purpose of education in the larger sense, the question of the college is far more important than the question of the University.

I hold that the college and its education as a whole should be the primary not the secondary object. The reason is, I conceive, that the actual education, which is the important thing, takes place in the college. The University only tests one side of the education. I want, therefore, to see the college an organic whole with a life of its own. This is no easy matter under the given conditions, but I am convinced that it is quite possible to do more than is being done. One may point to the Sibpur Engineering College and the Mahomedan College, Aligarh, as encouraging examples of what is possible.

What is wanted may be expressed most simply as 'esprit de corps,' the feeling that the institution itself is something to love and take a pride in, a larger and more valuable whole in which all the members share and to which disinterested service may be given. Indian students ought to learn to take a pride in their colleges, this sort of patriotism should be fostered in them.

The object then is by every available means, by the customs we institute, by the habits we form, by the whole external organization to enable the student to realize as widely as possible that he is a member of a college, which has a common life in which he shares. Among the means which appear as possible, which have not been fully tried as yet, and which in my opinion must be tried, if we want the colleges to fulfil the end for which they exist, the following may be suggested:—

The staff who (if they fulfil their function at all) must give the tone to the place should be more of a unity and by their whole attitude towards the college, towards each other, towards their students, should endeavour to impress upon their students the idea of this unity. They can only do so by being closely associated together in the common work of the college. They should manifestly be members of this common-wealth, not detached units. Permanence of the staff is here a consideration also of great importance.

I should like Principals of colleges to have more independence and a fuller initiation. The Principal represents this idea of the unity of the college. He should be somewhat of a personage. I should like him to have ampler resources for developing and improving a college, something more than a small contingent allowance and more in the nature of a permanent income or endowment: funds which he could administer at his discretion, though, of course, he would render exact account, how they were administered: funds which he might lay out from year to year on immediate improvements and from which he might even save by a wise economy for more permanent improvements. In this way the college would be always growing and developing.

But while giving this large measure of authority and independence to the Principal, I should wish some more definite status *in the college* to be given to the rest of the staff—the Professors as they are now called. For this end a College Council seems to me a vital necessity. This need not infringe on the due authority of the Principal. The whole responsibility rests and should rest with the Principal, therefore, the final word and the fully authoritative word should always be his. But that the Principal and Professors should meet

together from time to time for the purposes of consultation, not necessarily very frequently, perhaps not more than two or three times a year, could only, I think, be wholly beneficial for the purposes in view. They would thus realize and impress on others, the unity and community spoken of and would have useful opportunities of comparing notes and arranging for common action; in matters also to which a written order of the Principal cannot reach. We want co-operation, and not merely co-operation, but zealous co-operation. I think, every college should have a College Council and regular Professors' meetings.

I should wish it to be impressed upon students by every means in our power that they are men and not boys: that they cease to be school-boys when

they enter a college, and that they take upon them more of the responsibilities of manhood. Now here I discern circumstances arriving no doubt, natural enough from the manner in which the Indian college has in a way arisen out of the school, tending to the obscuring and confusing of the fundamental distinction between the school and the college, the college student and the school-boy, but no less pernicious in tendency, because it has all come about in a way we can understand. The colleges were sometimes at first little more than the upper classes of schools. Colleges and schools are still associated in pairs and sometime share the same building. For all that, it seems to me of the utmost importance to throw ourselves across this tendency, and insist on making the line of cleavage between school and college as deep as possible. The habit which still lingers of speaking of college students as boys is a sign of the popular point of view as well as an abuse of the accepted meaning of words in English. One matter in which this tendency works harmfully in my opinion, is the case of hostels, which sometimes are instituted for colleges and schools in common. I believe I am justified in saying that this practice is an utter disciplinary heresy. School-boys and college students should be most carefully kept apart for all moral and disciplinary purposes. It would take too long to develop the reasons for this separation. It may be briefly said that the whole point of view is different in the discipline of the two classes.

The same distinction applies to clubs and societies and institutes. School-boys and college students should be kept separate.

This being granted, the discipline of a college should be such as to bring out as far as possible the sense of responsibility of the student. He should be left to his own sense of right as far as possible. The discipline of the college need not be, and must not be, on that account slack. In most cases—perhaps in all—at present it requires somewhat to be tightened up. College students should be persuaded to show invariable respect for the place of education and for their teachers. Rules should be drawn up at every college to stop the practice of spitting in the college building or precincts, to prevent bustling and scrambling for places in the class-room, and to check chatter and striding outside as well as inside the class-room. The college student must learn to behave in a becoming way to keep his self-respect as well as respect for the place. Even dress and neatness are matters not wholly to be overlooked. Above all, he has to learn that, while a college is ruled in his interest by the proper authorities, it is not for him to try to rule it, or to instruct his teachers.

With the reservation made as to the distinction of college students and school-boys, it seems to me that nothing will conduce more to the improvement

#### Hostels.

of colleges than the extension of the hostel system. So much more can be done with students if they are together under discipline. The great difficulty, as things are, is to get at students out of college hours. Clubs and games are managed under great disadvantages while this is so.

Another point of cardinal importance, however, is that all the students in one hostel should belong to the same college. Otherwise the most important hold over them is lost, the appeal to the college itself. This, again, is confusion and utterly disrespectful of that unity which I have been insisting upon. At present this is not sufficiently recognized. We need to impress on the student the idea of his college as his, and of duties and privileges involved in the relation. This is lost if he only belongs partly to his college. In some of the largest hostels recently founded this principle has not been observed. Students may belong to different colleges, even perhaps to schools.

These, whether social, literary, or athletic, are important factors in the college life and help in the best possible way to the realization of membership for commonwealth which is what we wish our students to reach.

### 3. Clubs and societies.

But here, again, the principle of unit comes in, and here, again, the prevailing tendency is to disregard it. A Union Society is an admirable institution, but only when you have thoroughly developed first the separate life of the colleges to be united. When you have made your student realize his membership of his own college and have made its separate life as full and deep as possible, then it will be admirable to broaden him by association with students of other colleges. But not before you have done this. Otherwise you will never be able to reach this idea and the college and its units which I conceive to be the most potent educational instrument to our hand.

It is only by variety and interest of incidents and activities that our college life can be realized. These are the elements out of which the life is

built and to which the idea, where it is a motive and a stimulating force, is reducible by analysis. We must therefore make it a direct object to create such incidents and interests. In addition to those already noticed, there are college prizes, and colleges functions, by which life in Indian colleges might be coloured and diversified more than is at present the case. At all events, the institution of college prizes of books would, I think, be worth doing and serve a useful purpose.

Lastly, I desire to guard against the misapprehension that the ends which I have indicated as desirable can be wholly brought about by the elaboration of rules. Rules go but a little way indeed, and it is very possible to have too many rules; most of the things spoken of above cannot be made the subject of rules at all. It is not expedient to make all that may be desirable in the way of service from the college staff or conduct from the student the subject of rule. You cannot, for instance, command the amount of interest outside his routine duties which a college teacher shall take in his college or his pupils. The utmost you can do is to give him opportunities and foster, if possible, a high sense of responsibility. Rules are in some cases necessary, but the aim should be to keep them few and simple.



**Mr. Abdul Karim, Assistant Inspector of Schools.**

*Preliminary Remarks.*—I am a graduate of the Calcutta University and an Assistant Inspector of Schools of more than twelve years' standing. I have been directly connected with the University, as one of its Fellows, for about seven years. As an Inspecting Officer, I have had occasion to visit some of the colleges, most of the High English schools, and many of the Middle and Primary schools in thirty districts in Bengal, Behar, and Orissa. I propose to speak mainly about the state of the High English schools of which I have seen a good deal. My views on some points connected with these institutions are likely to differ from the views of those whose observations are confined to particular institutions and particular localities. I am afraid I shall have to say some unpleasant things. The importance of the subject, however, is my excuse. My object is not to cry down our educational institutions, which have been doing good to the people of this country, but to point out defects which, in my opinion, very much mar their usefulness and should be remedied.

*Increase in the number of High English schools.*—The number of High English schools has considerably increased of late. Where a few years ago there was not even a single school of this class, there have sprung up many in the course of a few years. In some places the number is much larger than necessary to meet real requirements. I did not know when I was coming to Calcutta that I would be called upon to give evidence before the University Commission, otherwise I would have brought with me detailed statistics of the schools and scholars in my division. I, however, remember the figures regarding the localities where I had lately been out on tour. Seven years ago when I left the Dacca Division on transfer, there was not even a single High English school in Palang, a thana in the Madaripur sub-division of the district of Faridpur. On return to the division after seven years, it was not a little surprise to me to find that in a single thana so many as eight High English schools had been established in course of these few years. All over Bengal the number of High English schools is on the increase. These schools owe their origin to four causes. When the standard of proficiency in general attainments required for admission into the Medical and Survey schools and for the candidates for the Mukhtarship examination was raised, the status of a large number of Middle schools was raised and they were converted into High schools. A few institutions of this class were established to meet a real demand for high education. I wish the number of such schools were large. Some of the High English schools owe their origin to a commercial spirit and some to private and party feelings. The number of schools that fall under this category, I regret to say, is by no means small. Some of them are mere money-making concerns and others are kept up simply to satisfy individual vanity or party spirit. Some people of moderate means and education, when they fail in other walks of life, think of trading in schools and scholars. Again, when a Mr. Ghosh establishes a school, a Mr. Bose of the same town or village, or of the neighbouring village, thinks it necessary for keeping up his prestige to establish a rival school of the kind. Sometimes party factions are formed and what one party do the other party try to undo. Thus there have sprung up a number of schools, the unhealthy rivalry among which far from furthering the cause of sound education has greatly retarded it. A considerable portion of the time of the Inspector of Schools is now taken up in deciding unpleasant cases connected with these rival schools. The unseemly struggle among these schools for securing students by means, fair or foul, has made the students masters of the situation. There has been in consequence a perceptible deterioration both in efficiency and discipline of our schools, as I shall show later on.

The University, I regret to have to say, is to blame, to some extent, for calling into existence schools of the kind mentioned above. If the University refused to grant them the privilege of sending up candidates to its examinations, they would have died before long a natural death. In this matter the University used to be guided entirely by the reports made by officers of the Educational Department. But of late the attitude of the University seems to

be to ignore local advice. Applications for recognition of schools and colleges are referred to the departmental officers as before, but their recommendations do not seem to be adequately attended to by the University authorities. I am aware of cases in which in spite of strong adverse opinions expressed by the departmental officers the University authorities thought it fit to recognise schools. As an instance I may refer to the case of a school in my division. While I was acting as Inspector of Schools, Dacca Division, the Registrar of the Calcutta University forwarded to me an application made by the managers of a newly established High English school at Chitrakote, a village in the district of Dacca. On enquiry I found there was a recognised school very close to it, and there was absolutely no room for two schools in such a small place. The Deputy Inspector of Schools, the Assistant Inspector of Schools, and the Inspector of Schools, my predecessor in office, had visited the place one after another and tried their best to amalgamate the two institutions. When they failed in their attempt, they refused to recommend the new school for recognition by the University. Subsequently the promoters of the school applied direct to the University and the application was referred to me. I submitted a strong report pointing out that there was no room whatever for two schools. Had the University refused to recognise the school as advised, there would have been a natural dissolution of one and the survival of the fittest. The promoters of the school began to agitate and induced the editors of some newspapers to take up their cause. They seem to have succeeded in enlisting the sympathy and support of some of the members of the Syndicate as well. There is a small stream, called in the local dialect a *khál*, between the two schools. It has little or no water during the greater part of the year and can be easily crossed even during the rains. This small stream was represented to be a rushing torrent in which many a boy was said to have met with a watery grave. Though the officers who had visited the place and had seen everything with their own eyes found nothing of the kind, the members of the Syndicate from a distance of many hundred miles believed what was represented to them. The school was accordingly granted the privilege of sending up candidates to the University examination. It has, if I have rightly been informed, already told seriously upon the numerical strength and discipline of the neighbouring school that was doing useful work for some time. Instances such as this are not very rare. It is very desirable, Sir, that before recognising a school every care should be taken to ascertain whether it supplies a real demand, whether the cause of sound education will be furthered by it, and how the existing educational institutions in the neighbourhood are likely to be affected by it. The University may have their own officers to make the necessary enquiries. But if the officers of the Education Department be consulted, it is most desirable that their reports should be taken into due consideration.

*Deterioration in discipline.*—I have said that in some schools boys are masters of the situation. These schools have to struggle for their very existence and depend entirely upon the income derived from fees and fines. They cannot, therefore, afford to lose boys, whose deficiencies and delinquencies have to be overlooked. Boys betake themselves from one school to another if punished for misbehaviour or not promoted for unsatisfactory progress in their studies. The Transfer school rules are meant to check this regrettable state of things. But I have reason to believe that in many cases they fail to produce the desired effect. Although we have repeatedly been pointing out to the school authorities that nothing tells so seriously upon the efficiency of a school as does indiscriminate promotion, we have not succeeded in checking it. In many of the schools an overwhelming majority of boys are totally unfit for the classes in which they are. Boys are promoted from one class to another and candidates are selected for the University examination irrespective of their progress and preparation. The annual and test examinations are in some cases a mere farce and not a real test of merit of the boys. In some schools all the boys in the first class are allowed to go up to the University examination. On inspection of the books in which the marks of the test and annual examinations are recorded, we find that in some schools boys who fail in all the subjects and secure less than even 20 per cent. marks in important subjects like English and Mathematics are allowed to appear at the University examination and are promoted to higher classes. It is no wonder, therefore, if a large number of

candidates for the Entrance examination fail. The head masters are required to certify that the candidates have some reasonable chance of success. Even where there is not the slightest chance of success they have to give the required certificate. Undue pressure is brought to bear upon them by the managers of schools and they have to give way. The following example will show how the teachers are sometimes helpless in the matter. There is a High English school at Kartikpur in the Palang thana of Faridpur. There have been started in this thana, as I told you before, eight High Schools in the course of a few years. The services of a rather strict head master have lately been secured for the Kartikpur school. He refused to send up to the last Entrance examination some of the boys of the first class, who, he thought, were not fit to go up to it. The guardians of the boys, however, so influenced the managers of the school that they obliged the head master to send up all the boys without a single exception, though he had no doubt that some of them had no chance of success. He must have acted against his conscience when required to give the necessary certificate. The same head master found himself in greater troubles when he refused to promote some of the boys who failed to secure sufficient marks at the annual examination. The boys formed, perhaps with the connivance of their guardians, a combination against the head master, created a row and so upset the order of the school that it had to be closed for some time. Anonymous petitions containing various allegations against the head master were sent to the proprietor of the school; he was threatened with bodily injury; the secretary was insulted and some of the boys who had been promoted were prevailed upon to leave the school. At this time the neighbouring schools must have found a good opportunity to add to their numerical strength. When the authorities of the school applied for departmental interference, I paid a visit to the place, punished some of the boys, threatened to rusticate others and succeeded in restoring order. At the intercession of the school authorities, however, some of the boys who were fined had afterwards to be forgiven. This, I am afraid, was not an isolated case. Such being the state of things, maintenance of proper discipline in our schools is out of the question. As sending up of unfit and unprepared candidates tends to reduce the standard of the examination, it is very desirable, Sir, that greater strictness should be insisted upon in the selection of candidates for the University examination and in the promotion of boys from one class to another, especially in the higher forms. The Inspector of Schools has taken into his hands the selection of candidates from the Government schools. When the head masters of zilla schools, who are Government officers in receipt of decent salaries, likely to be more alive to their responsibility than the low-paid teachers in schools under private management, are not entrusted with the selection of candidates, is it safe to entrust the head masters of private schools in this matter? I would have the selection of candidates from all schools made by the Inspector of Schools who may be required to certify as to their fitness to go up to the examination. I would have also, if possible, the promotion of boys in the first four classes of the High English schools in the hands of responsible officers of the Education Department.

*Numerical strength of the classes.*—In some schools the classes are too large to be properly taught and controlled by a teacher. Individual attention, which is so essentially necessary, is out of the question. The boys have to be left much to themselves. In aided schools, as a rule, we insist upon the division of a class into sections when the number of boys exceeds fifty. But in some private schools there are classes composed of a larger number of boys. In my opinion fifty is too large a number to be well taught and looked after by a single teacher. When he begins to hear the lesson from the boy at the top, he can scarcely reach the boy at the bottom during the time at his disposal. Forty, I think, is a fair number for a class. Where this number is exceeded, the efficiency of teaching is affected. I think it desirable to make a rule that no class or section of a class should contain more than forty boys.

*Teaching staff.*—The teaching staff in many schools is far from sufficient. The pay is too low to attract well-qualified men or to induce them to stick long to the posts when they accept them. They have to work without interruption for full five hours and have sometimes to teach at a time more classes than one. The result is that the teachers do not care either to work with their heart or to stick to the posts for a sufficient length of time. School-mastering has come to

be looked upon by some of our graduates and undergraduates as a stepping-stone to better posts or as a halting-place for preparation for the Bar. Such men accept almost any salary offered, but from the moment they join their posts they are always on the look-out for opportunities to leave them off. They cannot have their heart in the work, and as soon as they find anything better they throw up their appointments in the school. There is thus frequent change in the teaching staff, and this cannot but tell seriously upon both the discipline and efficiency of the schools.

Many of the teachers are not properly qualified for their posts, and they do not seem to recognise the gravity and responsibility of their choice. Some of them go direct from the college to occupy the chairs of teachers. Such men, I need scarcely say, are ignorant of the art of teaching and incapable of maintaining proper discipline. After their stay in the school for some time, which may be regarded as the period of apprenticeship in the art of teaching, when they learn something and just begin to be useful, they betake themselves to other professions. It is a wonder that this state of things did not so long attract the attention of the authorities. Some special qualifications over and above general attainments are required for almost every appointment, even for a petty clerkship. But for the very responsible post of a teacher no other qualification is insisted upon than that of being a mere graduate or an undergraduate. It is most desirable that we should have a body of trained teachers, and the University should insist upon their appointment in recognised schools. It is also desirable that teachers should be well paid, so that they may stick to their posts. The Education Department is not now so attractive as it once used to be. The best scholars do not seem to like to enter the Educational Service for the meagre prospects held out to them. They are attracted to other departments.

*House accommodation.*—Many of the schools under private management are badly housed. Few of them have a decent habitation of their own. Many of the school houses are not at all suited to the purpose for which they are used. They do not seem to have been built on sanitary principles, there being little provision for sufficient light and air. The ceiling being low and the roof made of corrugated iron, the heat is almost unbearable during a part of the year. The class rooms are not sufficiently large and boys are so overcrowded as to affect their health. I do not think, on the whole, I have overdrawn the picture, although a good school house may be met with. But they are few and far between.

*Management of schools.*—The managing committees of schools are generally composed of men who have no experience of school management and little knowledge of the requirements of educational institutions. Every body is at liberty to start a school. As a rule, the managers of private schools do not seem to realise the gravity of their undertaking. They seem to be always led by false notions of economy, and they do not like to lay out the amount required for its maintenance in a proper condition. They seem to be always anxious to run their schools on cheap lines, unwilling to have them well officered and well-equipped. I have pointed out some of the defects and drawbacks of the schools in Bengal. I wish more Inspecting Officers having experience of a large number of schools were invited to give evidence. They would have, I believe, corroborated the truth of what I have said.

*Private colleges.*—My knowledge of private colleges is limited. From what I have seen of some of them I may say that my remarks regarding many of the points connected with the management, staff and accommodation of schools are not altogether inapplicable to the colleges. I do not think their staff is as strong and their laboratories are as well-equipped as desirable. As for libraries, they are very poor apologies for what they ought to be. The University should insist upon annual examinations being held in the First and Third year classes, and those who fail to secure sufficient marks should not be promoted to the Second and Fourth year classes. Candidates for the F. A. and B. A. examinations should prove their fitness to go up to those examinations by passing a test examination as the candidates for the Entrance examination have to do. The heads of the colleges should be required to certify that the candidates sent up for the F. A. and B. A. examinations have a reasonable chance of success.

It is very desirable, Sir, that there should be definite and stringent rules for the recognition of schools and affiliation of Colleges. When an application is made, it should be well ascertained whether there is a real demand for the institution for which affiliation or recognition is sought, and whether its promoters by their education and means are in a position to conduct it on lines, on which it ought to be conducted. Everybody should not be permitted to undertake such an important and responsible task. No school should be recognised and no College affiliated unless and until its sources of income are such as to ensure its stability, and its staff is both sufficient and qualified to teach the subjects and standards prescribed and unless it is well-housed, well-furnished well-equipped. Besides, there should be a sufficient guarantee of its being always conducted on an efficient footing. To permit such institutions to undertake University Education as are not in every respect fitted to do so, would reflect discredit upon the University. The recognised and affiliated institutions should be periodically inspected by the University and those that are found to have deteriorated in efficiency should be disaffiliated. Weeding out of inefficient Colleges and schools is likely to produce a salutary effect. It is desirable that every University should have a distinct sphere of influence. It should not recognise or affiliate institutions which it cannot properly control.

*The Senate.*—As a member of the Senate and of two of the Boards of Studies, I may be expected to say something about them. The present constitution of these bodies is not, in my opinion, what it should be. There seems to be no fixed principle on which Fellows, specially Native Fellows, are appointed by Government. Some of them seem to have been appointed merely by way of compliment. They do not possess academic attainments which should be a requisite qualification for a Fellow. I think it is necessary that Fellows should be graduates of some University, Indian or European. Being themselves products of such an institution they would know its requirements and would be more useful than those who have no knowledge of any University. The best way for the University, to recognise Oriental Scholarship, is to confer honorary degrees and not to bestow complimentary Fellowships.

The manner in which Fellows are elected by our graduates is far from satisfactory. The canvassing and wire-pulling that take place on the occasion of such election are open to serious objection. Those who can canvass well seem to have the best chance of success. Some of the best men fail to enter the University through the door of election. I know distinguished graduates of long standing and high position who repeatedly stood for election, but were not successful, perhaps because they did not take such objectionable steps as are sometimes taken by candidates for this honour. I believe many of the Fellows elected by the graduates come from a particular profession which seems to afford special facilities for canvassing. Votes are sometimes given in favour of men whom the voters have never seen or known. Under the existing system of election neither a Muhammadan nor an Anglo-Indian seems to have any chance of success. Up to this time no one of these persuasions, as far as I am aware, has been elected a Fellow. As Fellows are appointed by Government and elected by the graduates in the unsatisfactory manner described above, it is no wonder that some of them do not care to take any interest in the affairs of the University. I regularly attended the meetings of the Senate for five years, but I failed to find present in any of them some of the Fellows whom I know merely by name. There are others who are seen in the University Hall only once a year on the occasion of the Convocation. Again, there are some who come to the meetings simply to record their votes when matters in which they take personal interest have to be decided.

Such being the state of the Senate it requires to be remodelled and reconstituted. The number of Fellows, in my opinion, should not be either less than 100 or more than 150. Two courses suggest themselves to me by which the reconstitution of the Senate may be effected. One is not to fill up vacancies caused by death or retirement of Fellows till the number comes down to the required figure. The other course is for the Fellows to tender their resignation to the Chancellor of the University. I would prefer the latter course to mend matters at once. Delicacy is likely to be felt in making it known that some of the existing Fellows have ceased to be what they are. It is desirable, therefore, that we should in a body tender our resignation to His Excellency the Chan-

cellor, so that he may have unfettered discretion in appointing Fellows and in reconstituting the Senate. I have no objection to a limited number of Fellows being elected by the Fellows themselves and other graduates of the University, provided effectual steps are taken to guard against the unpleasant canvassing and wire-pulling that have characterised the election of the Fellows in the past. It does not seem desirable that the election should be by voting papers. The personal attendance of the voters at the Senate Hall should be insisted upon. Graduates of ten or fifteen years' standing may be given the privilege of voting. The present qualification of twenty years' standing seems to be rather high. I am in favour of life Fellowship. If it is to be terminable, every Fellow should hold office for at least 10 years. If a Fellow were to vacate his seat earlier, he would be going out just at the time when he is likely to be most useful to the University. It takes sometime for a Fellow to acquire a sufficient knowledge of the affairs of the University. For the first few years he, for want of knowledge and experience, is not able to take an intelligent part in its proceedings. The longer he is a Fellow, the more useful he is. A fellow should, however, forfeit his Fellowship if he fails to attend, without reasonable excuse, the meetings of the Senate for a certain period, say, for two consecutive years.

*The Faculties.*—The different Faculties should be composed of such Fellows as would be in a position by their attainments and experience to take an intelligent part in their deliberations. If Fellowships be not indiscriminately bestowed, all the Fellows will be qualified men. In that case I would assign each Fellow to one or more faculties on which we may be qualified to sit.

*The Syndicate.*—As I had never been on the Syndicate, I am not in a position to speak much about it from personal knowledge. I may, however, say that the manner in which the Syndics are elected is very far from satisfactory. As in the case of election of Fellows there is, in the election of the Syndics also, a good deal of canvassing, unbecoming such educated and enlightened men as the Fellows of the University. This should be put a stop to. The existing number of Syndics seems to be adequate. The present practice of five members being elected to the Syndicate by the Faculty of Arts, two by the Faculty of Law, two by the Faculty of Medicine, and one by the Faculty of Engineering, seems to be working well and may be continued. Instead of being elected every year I would have Syndics in office for two or three years. But I would not have the same men re-elected several times so that all those Fellows who are able and willing to serve on the Syndicate may have an opportunity of doing so. I would like to see men engaged in practical work of education well represented on the Syndicate. It would be deplorable if educational experts were to be outvoted in important matters by amateur educationists.

*The Boards of Studies.*—As a member of the Boards of Studies in Arabic and Persian and in History and Geography, I am in a position to speak only of these Boards. The indiscriminate manner in which these Boards seem to have been constituted cannot but reflect discredit upon the learned Fellows of the University. Whenever a vacancy occurs, specially in the latter Board, there is so much canvassing for it as to produce a sickening effect. Some of the members of these Boards, I regret to have to say, are not quite competent to judge of the merits of books, presented to them. If I remember aright, some time ago a gentleman who did not know even the alphabet of the Arabic and Persian languages was elected a member of the Arabic and Persian Board simply because he happened at the time to be the Principal of an Oriental College. The European members of the History Board have gradually been replaced by native members of whom there is now an overwhelming majority. Interested persons seem to have managed to take the seats vacated by Mr. Rowe, Mr. Prothero, and Mr. Mann. Although distinguished Fellows like Mr. Justice Amir Ali and Mr. S. C. Hill were proposed for these seats they were not elected. There are not many members on the History Board who have, as far as I know, reputation for a special knowledge of the subjects on which they are required to give their opinions. It is an open secret that some of the members, either for want of time on account of professional engagements or for want of interest in the subjects, do not carefully go through the books referred to them. I have reason to believe that on some occasions some of the members gave their



opinions after turning over a few pages and some perhaps without taking even this trouble. The result has been that text books on History have sometimes been selected as a matter of patronage and interest and not of merit and fairness, and there has been more frequent change of these books than desirable. It seems to have become rather unpleasant for impartial men to serve on this Board. If my information is correct, one of the members resigned his seat in disgust after the last meeting in which the historical text for the Entrance Examination was selected. For these reasons public confidence in the Board of Study in History seems to have been shaken. Moreover, predominated as the Board is by members of a particular persuasion, there seems to be a conviction among my co-religionists that a book written by one of them has not much chance of being treated with fairness. This is a very regrettable state of things, and the sooner it is put a stop to the better.

At present the only qualification for being elected a member of a Board of Study is to be a Fellow of the University. Every Board, in my opinion, should consist of specialists in the particular subject or subjects for the consideration of which it is constituted. It is not desirable to put on these Boards those who write such text-books as are considered by the Boards or those who are connected with their printing or sale. Men of established reputation and studious habits who would carefully read the books referred to them should be elected members of the Boards of Studies. At present the Syndicate has a nominal voice in the selection of text-books. The recommendations of the different Boards are almost invariably approved by it. It seems desirable that Boards of Studies, like the recently formed text-book Committees, should be advisory bodies and the final decision in the matter of selection of text-books should rest with the Syndicate.

*The Age-limit.*—I am in favour of fixing a limit of age for candidates for the Entrance Examination. As two of my children had been pushed up rather prematurely to higher classes I made a special study of this subject. After consulting those who are in a position to give information on the subject I have come to the conclusion that it is not at all desirable to allow a boy to appear at the Entrance Examination before he is fifteen, if not sixteen. Although my boys were doing well in their class and stood high at the examinations I found they had to depend more on their memory than on intelligence or understanding. Unless there is a sufficient development of intelligence it is not possible to grasp thoroughly subjects like Geometry and Science. Only the other day I had a talk with the head master of a very largely attended school at Dacca. He mentioned to me three instances of boys having passed the Entrance Examination from his school at the early age of thirteen or fourteen. These boys acquitted themselves very creditably at the University Examinations and gained scholarships. But the ultimate result has been disastrous in all cases. One of the boys died shortly after he left the University, one is in a lunatic asylum and the other, though a member of the Bar, is in a miserable state of health. Last year while out on tour at Sassaram, I happened to put up in the same Bungalow with Mr. Roy, Assistant Opium Agent. He told me that one of his sons passed the Entrance Examination at the age of fourteen. Both he and his father-in-law, Mr. Justice Ghosh, were not in favour of rushing up the boy to higher classes. But their mother, if I remember right to have been told so, liked to see them get through the Examinations at an early age. Nature, however, would not allow herself to be violated. The mental strain so told upon the health of the boy that when he went up to the second year class and was preparing himself for the F. A. Examination, Dr. Sarbhadhikary saw no alternative but to advise that the text books should be burnt. Knowing all these I have not the least hesitation in saying that the interests of our youngmen require that an age limit should be insisted upon. There may be some exceptional cases to the contrary, but as a rule I have no doubt that health of boys is seriously affected when they have to prepare themselves for the University examinations at an early age. I am so thoroughly convinced of this that I have withdrawn my sons from the fourth class of the Calcutta Madrasah although one of them did so well at the class examination as to secure a scholarship. I mean to detain them for a year, so that they may not pass the Entrance Examination before the age of fifteen.

*The Boarding system.*—It is most desirable that students attending our Colleges and schools should, as far as possible, leave in hostels attached to these institutions. Nothing exercises a healthier influence upon their life and character than this. Now-a-days the advantages of boarding schools do not seem to be properly appreciated in this country. In ancient times, however, this was the prevailing system of education in India. The Hindu *tolis* the Buddhist *viharas*, and the Muhammadan *Khangahs* were all boarding schools. In those oriental seminaries the pupils resided with their preceptors, undivided attention was paid to studies and moral and religious lessons were taught more by personal examples of the teachers than by precepts. The result of such a system of education is well known to every student of Indian history. While it was in vogue, India produced almost all those great scholars who have left behind them imperishable monuments in the domains of Literature and Philosophy. The death of original thinkers and writers in India at the present time is not improbably due in part to the present system of education. The distinguished Arabic scholars of the time are not turned out by the public Madrasahs. Those who sit at the feet of reputed Arabic scholars at Lucknow, Rampur, Aligarh and Cawnpore, perhaps learn much more than those who attend our Madrasahs. The well known Sanskrit scholars are not perhaps trained in the Sanskrit College, but in the *tolis* of Nadia where, as in days of old, pupils reside with their teachers. I had occasion to visit some of these *tolis* and also some of the Burmese *Kyongs* at Cox's Bazar in the district of Chittagong. The whole atmosphere of these institutions appeared to me totally different from that of our ordinary schools. Both the pupils and the teachers are happy, cheerful, contented and devoted to their respective duties. An intelligent boy is sure to catch the contagion from his surroundings. The sons immoral, dishonest and disloyal men generally become what their parents are. It is very desirable therefore that children should live in a place where they may not imbibe any of those vicious habits and immoral and irreligious tendencies that vitiate the character of some of our young men. If in England where parents are far more educated and enlightened it is thought necessary to keep the children away from home influence, how much more necessary is it that children in this country should be kept apart from those surroundings which are not calculated to contribute to the formation of a good character or to proper development of intellect.

The success of a boarding-house chiefly depends upon its proper management. An ill-managed boarding-house is a hot-bed of evils. My experience of some of the boarding houses, attached to some of our educational institutions, is far from pleasant. Their superintendents do not seem to realise the significance of Bacon's dictum that "cleanliness is next to godliness." The rooms are not kept clean, the furniture are not well arranged, the beds, books and other things are not kept in order, and hardly any care is taken to ensure regularity in meals, study and sleep. I believe, Sir, some special training is necessary for men to be placed in charge of boarding-houses, which should be opened in connection with all important schools and Colleges. No student should be allowed to live in any questionable quarter, or without a proper guardian to look after him. The growing want of touch between the Professors and the pupils is very much to be regretted. Not only the pupils but also the teachers should be required to live in the hostels attached to the schools and Colleges. The present relation of the teachers with the pupils is very far from satisfactory. They meet them only during the school hours but do not care to know how the pupils pass their time out of school. Thus the teachers do not exercise the least influence on the character of the students. It is most desirable that the teachers and the taught should come into contact as often as possible and thoroughly know one another, because the living example of a good teacher does much more to improve the moral tone of the students than anything else. Some excellent rules on the subject have lately been framed by the Education Department. But I do not think these are sufficient to produce the desired effect.

*The Method of Teaching.*—I have already taken up so much of your valuable time and so much has already been said by the teachers examined as to the very unsatisfactory manner in which English and other subjects are taught



in our schools and colleges that I do not think it desirable to say much on this subject. As an inspecting officer my experience has been the same as that of the teachers who have expressed their opinions and I unhesitatingly endorse almost every word that has been said on this point. The method of teaching English, Euclid, Geography and other subjects is so defective that it calls for immediate remedy. Some of the chief causes of this defect are (1) want of good teachers; (2) large classes making individual attention impossible; (3) absence of a logic of learning for its own sake; (4) multiplicity of subjects; and (5) examination questions encouraging cram. I shall speak a few words on each of these points.





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## MR. FARQUHAR, PROFESSOR, LONDON MISSION COLLEGE.

## DEFECTS IN THE ARTS EDUCATION—THE STUDY OF ENGLISH.

I have asked to be summoned as a witness before this Commission, because I wish to give expression to what I have learned from eleven years' experience as a professor and an examiner; all my work, both as teacher and as examiner, has been in English. I lecture in the four college classes of the L. M. S. Institution, and in the Entrance class as well. I believe that the Arts' Education of Bengal is at present in such an unsatisfactory condition that it is useless to talk of any kind of advance in the University until the ordinary general education is materially bettered. The present position of affairs is not only seriously unsatisfactory to the undergraduates themselves and to the country generally, but gives grave discouragement to every true teacher. The duty of an examiner is depressing in the extreme, not only on account of the excessive percentage of candidates who fail, but much more on account of the character of the work of those who pass. In a large proportion of cases the books are not really understood, and the candidate passes because he has amassed a sufficient quantity of various information to secure him the required number of marks. There are a number of causes that conspire to produce this state of affairs, but two stand out as far more powerful than all the others. The first of these two serious enemies is to be found in *the present character of the people of this country*. So long as the young men themselves and their fathers and guardians continue to hold a purely utilitarian conception of education, so long will it be impossible to make the education of Bengal what it ought to be. Clearly this cause cannot be removed by any legislation from without the University, nor yet by any reform from within. But while we shall have to wait long for the slow transformation which will remedy this evil the second serious trouble can be met by internal changes. This second evil you have already heard of from many witnesses; it is *the wretchedly inadequate knowledge of English* which our undergraduates have. Since English is the medium of instruction, weakness in this subject handicaps every subject. Lecturers, on the one hand, have to lecture slowly and dictate largely; and students, on the other, find it impossible to cover much ground in their private reading. This is the reason why, during the last ten years, the University has been compelled to steadily diminish the amount of matter prescribed for its examinations. Clearly we have here a cause which has a very wide field of operation. As you have heard from several witnesses, the cause of this weakness in English lies in *the way English is taught in the schools* and that which determines most largely the mode of teaching in the High Schools is *the character of the Entrance Examination*. It is well, however, to realise that even if we had an ideal Entrance Examination, English would not be taught to perfect satisfaction in the schools. For besides the utilitarian aim of students, parents and guardians (which always and everywhere acts as an alien force, disturbing the balance and steady direction of our educational compass), there is the grave fact that the bulk of the teachers in the High Schools are necessarily men of very incomplete education and training, and yet they have to undertake the exceedingly difficult task of teaching a living language which is not their mother tongue. But we may quite well allow these considerations their full weight and yet hold that, in the main, the character of the Entrance Examination determines the mode of teaching in the High Schools. And if we believe that we shall ask ourselves whether some grave change is not required in the English papers of that examination. Now my experience in teaching English in the Entrance class has taught me one thing with infallible certainty, and that is this, that the getting-up of the details of the text-book of English extracts absorbs nearly the whole of the attention, time and energy the lad is able to give to English. He has not only to get up an explanation of every one of the hundreds of difficult sentences he finds in these extracts; he has to realise and remember the contents of each separate piece; every reference and allusion, every geographical and historical statement, has to be securely stored in his mind; and all the grammatical, syntactical and philological peculiarities must be explored and then memorised. Such is the

Entrance boy's chief duty as matters stand at present. Now contrast with this that which we should wish to see our students doing in the first stage of their English education. To get a thorough mastery of (1) the vocabulary ; (2) the grammar ; (3) the idioms of simple modern prose and of everyday conversation,—this is surely what we should demand, and, indeed, all we should demand from young students. Now the text-book makes it possible for the teacher to concentrate attention on these central simplicities, and compels both teacher and pupils to give their time and strength to scores of peculiarities and to hundreds of historical, literary, geographical and other points, exceedingly valuable in themselves, but *absolutely fatal to the young student's study of the language as such*. In the second place the text-book *opens the flood gates to cramming*. For as the text paper will assuredly be founded on the text, the student, determined to pass at all costs, gets up everything that can possibly be asked in the paper. He commits to memory, not only his lecture notes, but the published key, from the first page to the last, and will even learn by heart the prose extracts themselves, so as to be able to reproduce any portion on demand. Nor does the evil limit itself to the cramming of this particular piece of work : preparation for the Entrance Examination being the first stage in a student's career practically fixes for life his modes of study and determines what sort of student he is to be. Thus if we wish to better the teaching of English in High Schools, we must abolish the English text-book for the Entrance Examination. All the English work in the Entrance must be unseen and must be such as to test the candidate's proficiency in simple modern prose and nothing else. The standard will also have to be considerably raised ; for, while the present figure may be fair enough as a test for an ordinary subject in a matriculation examination, it is manifestly too low when the purpose is to test the candidate's capacity to read and write the language, which is to be the medium of his instruction. The raising of the standard will necessarily lead to a longer school curriculum. Against this the utilitarians, both within and without the Senate, will raise a loud cry. But the difficulty must be faced, unless we are to give up in despair the task of getting our undergraduates to understand the books they have to read. The organization of a new examination for those who do not mean to enter the University might also relieve the difficulty, as the new examination might be made easier than the Entrance. To shorten or to lengthen the amount of matter prescribed in the text-book will not solve the problem ; for the old temptations will all remain. Nothing but the abolition of the text-book and the substitution of unseen work will produce the reform so much needed in the teaching of English in the High Schools.

**STATEMENT**  
OF  
**KHAN BAHADUR MR. A. F. M. ABDUR RAHMAN,**  
*BARRISTER-AT-LAW.*

I have been a member of the Senate of the Calcutta University for the last 15 years. I am also a member of the Board of Studies in Arabic, Persian and Urdu. I have been member of the Syndicate several times. I have made the education of Mahomedans a subject of special study, and during my connection with the Senate have taken an active interest in the cause of education among Mahomedans of Bengal. At the kind invitation of the Commission I desire to make a few remarks regarding certain matters under enquiry with which the Mahomedan community are directly interested. That the system of education promoted by the University of Calcutta, tried for more than 40 years, is defective, does not admit of any doubt, and in view of the increasing number of Mahomedan students in the University, any reform that may be recommended by the Commission should, in my opinion, have reference to the special needs of the Mahomedan community of Bengal.

I advocate the proposal of turning the Calcutta University into a teaching University, and if it be possible or expedient to form a list of recognised teachers I would venture to suggest that a proportionate number of Mahomedans should be placed on the list. It is noteworthy that among officers engaged in actual educational work, whether in Government or private educational Institutions, there is an exceedingly inadequate number of Mahomedans.

If the proposal of turning our University into a Teaching University be carried out, there will, in my opinion, be sufficient work for it to attend to, and any attempt to widen the sphere of its work may result in a diffusion of its energy. I therefore recommend that the sphere of its influence should be limited rather than widened.

With regard to the constitution of the Senate, I am of opinion that the number of Fellows is large and should be limited. But I regret that even with this long list, the representation of the Mahomedan community on the Senate is far from being satisfactory. During the 30 years between 1870-1900, of the 416 gentlemen to whom Fellowships have been given, only 33 were Mahomedans. While these figures give the lamentable percentage of nearly 8% of Mahomedan Fellows to the total number, the average of Mahomedan appointments to the Senate dwindles to the insignificant figure of one per annum. This is hardly as it ought to be. Mahomedans are gradually recognising the importance of an English education for their youths, and the steady increase in the number of Mahomedan students in schools and colleges is a significant sign of the times.

Questions concerning Mahomedan education and matters affecting the interests of Mahomedan students in schools and colleges are daily cropping up, and in view of these circumstances, it is, in my humble opinion, essentially necessary that a fair and proportionate number of Mahomedan members should form an integral part of the University.

It is unfortunately only too true that a considerable number of Fellows take little, if any, interest in the working of the University or even care to attend its meetings. I would therefore suggest that any member, who does not attend one half the number of meetings to which he has been invited during the year, or is absent from Calcutta for a period of one year, without sufficient cause, shall be considered to have vacated his seat on the Senate. The principle of the foregoing suggestion is embodied in a rule which obtains in the Boards of Studies. If this principle of elimination be rigidly adhered to, a certain number of Fellows must needs go out gradually, but the rest should be allowed to hold the Fellowship for life. In the case, however, of new appointments, I support the suggestion that Fellowships should be bestowed upon men engaged in the work of education or of proved merit and ability, and that they should be made terminable after a period of five years to be reconferred as a reward of good service rendered in the cause of education.

I am entirely opposed to graduates being allowed to nominate any Fellows as under the existing rule, for besides other grounds, no Mahomedan has any chance of being elected by them.

The constitution of the Syndicate of the Calcutta University is, in my opinion, susceptible of improvement. The present number 10 may profitably be increased to 12, in order to admit of a fair representation of Government interests and the interests of the different classes of the community. Under the existing system colleges are sufficiently represented. Having regard to my foregoing observations as to the increasing number of Mahomedan students in colleges and schools and the varied interests of the Mahomedan community in the administration of the affairs of the University, I cannot help regarding it as lamentable that there should be no provision whatever for the representation of such interests on the board of this Executive Committee. For years past, it has been keenly felt by Mahomedans who have the welfare of their community at heart and who have devoted their time in the promotion of the cause of education among Mahomedans, that there should not have been introduced by statute or rule a provision for the appointment of Mahomedans on the Syndicate. Ever since the time when the principle of elective representation was first recognized in this country, whether in the Local Self-Government Scheme, the constitution of Bengal Municipalities, the Corporation of Calcutta or in the Councils for making laws and regulations under the Indian Councils Act of 1892, adequate provisions have been made for the representation of minorities or

of different classes of the community ; and Government have accordingly appointed a fair number of Mahomedans in District or Local Boards, Bengal Municipalities, the Corporation of Calcutta or the Bengal Legislative Council. Under the peculiar circumstances in which the Mahomedan community are placed, they are deeply grateful to Government for the concessions already granted to them, and I, on behalf of the Mahomedan community, respectfully urge upon the Commission that the principle of a fair and adequate representation of Mahomedan interests should, by Statute, be extended to the Syndicate also. Government might provide by enactment for the appointment of a fixed number of Mahomedans and authorise the Vice-Chancellor, President of the Faculty of Arts or the Director of Public Instruction to nominate such qualified Mahomedans as he deems fit and proper to represent Mahomedan interests on the Syndicate.

I am not in favour of the abrogation of the rule that every Fellow must be assigned to a Faculty, as under the existing rules the Faculties would be sufficiently strengthened by the allotment of teachers, and graduates with honours, to different Faculties in the subjects of their special study.

The knowledge of English with which boys come equipped to Colleges is lamentably inadequate. I would like to see them more thoroughly grounded in that subject, and therefore propose raising the minimum age for matriculation to 15 years.

The question of making the Entrance Examination a test of preliminary education for admission to the Calcutta Medical College, was raised a few years ago by the Mahomedan Literary Society of Calcutta. Formerly, the possession of an Entrance certificate entitled a student to take his admission to the Medical College, with the result that a number of Mahomedans obtained admission, successfully passed out and lived to distinguish themselves in their subsequent career. But at a later date the First Arts certificate was introduced as a preliminary test for admission to the Medical College, with the result that of the number of students who passed out from that College, the number of Mahomedans was exceedingly small.

Dr. J. M. Coates, the late Principal of the Calcutta Medical College, favourably received the proposal of the Society to go back to the old system of Entrance certificates, but owing to his retirement, the question was dropped. I therefore fully support the suggestion that the standard of the Entrance should be improved, and adopted once more as the preliminary test for admission in the Medical College. This would materially benefit those of the Mahomedan students who are desirous of taking to the Medical line. Of the 153 Medical men employed in the Bengal Subordinate Medical Department as Civil Assistant Surgeons only 7 are Mahomedans, and of this number one was recently imported by

Colonel Hendley, Inspector-General of Civil Hospitals, from the Punjab, as no qualified Mahomedan was available in Bengal.

For sometime past there had been a tendency in the Board of Studies to lower the standard of Arabic and Persian in the University. This was exceedingly unfortunate in the interests of Arabic and Persian literature. These languages require considerable time and application from those who desire to become proficient in them ; and it is a pity to see them neglected in favour of a system of education which aims solely at cramming the student with multifarious text books for the single purpose of passing a given Examination. I therefore respectfully submit to the Commission that the curriculum may be so modified as to ensure a higher standard of study and a better teaching of Arabic and Persian in the Calcutta University.

16 TOLTOLLAH, CALCUTTA,

*The 24th March, 1902.*





*Memorandum of evidence and suggestions of Colonel Thomas Holbein Hendley, C.I.E., I.M.S., Inspector General of Civil Hospitals, Fellow of the Calcutta University and a Member of the Faculties of Arts "and Medicine."*

I wish to offer evidence as a member of both Faculties and begin with medicine because I was a representative of that Faculty on the Syndicate for a year.

For some time past the Faculty has been notoriously weak, a fact to which I and others have repeatedly drawn attention. This weakness is due to several causes, of which the principal are :—

1. The small number of Medical Fellows and perhaps confinement of appointments to Calcutta men.
2. Frequent transfers, retirements, and absences on leave—particularly of European Fellows.
3. Unavoidable delay in filling up vacancies. In the calendar of 1901 twenty names of members of the Faculty appear, of whom ten were Europeans and ten were natives.

There are now only sixteen Fellows :—

1. Surgeon General Harvey has died.
2. Colonel Joubert has been transferred to another and distant province.
3. Lieutenant-Colonel Russell has retired.
4. Maulavi Zahirudin Ahmed has died.

Further one Fellow is on leave in Europe. One is very ill, one will leave the province in a few months, and others are growing old.

As appointments have usually been made about January 1st it has not unfrequently happened that some months have elapsed before vacancies were filled up. The Principal of the Medical College may be promoted or go on long leave and no one is appointed to take his place as a Fellow. For example Lieutenant-Colonel Harris acted as Principal for Lieutenant-Colonel Bomford for 18 months, but during that period he was not a Fellow.

From 1895 when Dr. Harvey left his Bengal appointment of Inspector General of Civil Hospitals none of his successors held a Fellowship until my appointment in January 1899. As the Principal of the Medical College is the Chief Professional Officer in the Medical College, and the Inspector General now controls medical education in Bengal and both are, therefore, in a position to do much work for the University and for students much loss and inconvenience may result from their not being members of the Faculty. I suggest, therefore, that they should be *ex-officio* members of the Faculty and Fellows; I also advise that there should always be Fellows in Calcutta to represent the principal subjects of examination which may conveniently be grouped as follows :—

Group 1	$\left\{ \begin{array}{l} \text{Medicine} \\ \text{Materia Medica} \\ \text{Pharmacy} \\ \text{Pathology} \end{array} \right.$	$\left. \begin{array}{l} . \\ . \\ . \\ . \end{array} \right\}$	At present represented by the Principal.
Group 2	$\left\{ \begin{array}{l} \text{Surgery} \\ \text{Anatomy} \\ \text{Physiology} \end{array} \right.$	$\left. \begin{array}{l} . \\ . \\ . \end{array} \right\}$	Are not represented by a lecturer at present.
Group 3	$\left\{ \begin{array}{l} \text{Midwifery} \\ \text{Diseases of women} \\ \text{Medical} \\ \text{Jurisprudence} \end{array} \right.$	$\left. \begin{array}{l} . \\ . \\ . \\ . \end{array} \right\}$	Also are not represented by a specialist at present.
Group 4	$\left\{ \begin{array}{l} \text{Hygiene} \\ \text{Chemistry} \\ \text{Botany} \end{array} \right.$	$\left. \begin{array}{l} . \\ . \\ . \end{array} \right\}$	Represented by the Sanitary Commissioner and the Professor of Botany at present.

In addition distinguished experts in the different subjects and men, who from their own past academic as well as professional career have shewn special fitness and interest in professional education, should be Fellows.

The principal lecturers in the Medical College, which should be held to be a Teaching College in the University, should be University Professors. As the Faculty of Medicine is the smallest of all the Faculties I think its number should be permanently increased to at least 30 Fellows—if it is not considered advisable to increase the number of Fellows, the same end might be obtained by immediately filling up all vacancies as they occur, whether permanent or temporary, and removing those disqualified by age of whom five might be non-resident, but have power to express their opinions on important questions in writing and to vote upon them.

I think it would be of great use to the University to have some Fellows in the large towns in the provinces not only to represent its interests there, but to assist in controlling local University examinations. It would be advantageous to the Medical Department, for example, if some of the Superintendents of Vernacular Medical Schools, as at Dacca, Patna and Cuttack, were Fellows.

In order to ensure efficiency I think that Indian Fellows should vacate on retirement if officials, or on attaining the age of 60 years, unless re-appointed for five years. Europeans in practice always leave about this age, if not earlier, in consequence of which there is a succession of new men with new ideas.

*Syndicate.*—My experience as a member of the Syndicate for a year leads me to the belief that an increase in the number of members of that body would not be an improvement. The business was always carefully and expeditiously done and little time was wasted in unnecessary talk, and as one of the bye-laws makes provision for filling up temporary vacancies, the full number of members in Calcutta was kept up. I think that it is not desirable, however, to always hold meetings of the Syndicate and of the Faculties on holidays or on Saturdays, because University business should be looked upon as a duty. The election of Presidents of Faculties and of members of the Syndicate now takes place sufficiently early in the year to allow more members than formerly to vote, but the annual meeting of the Senate is still held under the bye-laws in the third week in April, in consequence of which most of the *ex-officio* Fellows, and many others, who are proceeding on long leave, cannot attend. To remedy this the meeting should, I think, be held early in March. It should also be possible to arrange for most important questions to be taken up in the cold season. This is usually the case.

*Examiners and Examinations.*—It is the duty of the Syndicate to appoint examiners. In practice the President of the Medical Faculty nominates medical examiners. In my opinion, the second member of the Syndicate should have an equal voice. I regret to state that, notwithstanding the note on every application that "canvassing is not allowed," I have been canvassed but not in the Medical Faculty.

A considerable number, if not the majority of the examiners, should be appointed from outside the Medical College, and, in order to secure greater interchange of ideas, as well as to ensure uniformity of tests, the written questions should be more frequently set by examiners from other Universities. I believe that Lahore and Bombay help each other in this way. It is very important that outside criticism should be provided in order to prevent too great influence of local and even of provincial ideas. In promotion examinations for Hospital Assistants this is done with advantage in Bengal, and arrangements have been made to equalize the tests and standards in the case of students at the four vernacular medical schools of the Province. I submit tables to show how the standard of preliminary education has improved in recent years. The figures show what becomes of a large number of failed Entrance and F. A. candidates.

The text-book committees in the different Universities might also usefully exchange ideas, and in every way efforts should be made in India to ensure uniformity in the examinations, tests, percentages of marks, and therefore in the value of all University degrees and certificates, especially in the Medical Faculty. To some extent the expenditure and, perhaps, discipline of students

in the different Universities should be equalized, so that we should thus have in practice one portal of admission into professions and a fairly equal standard for *Honour* degrees. I have not referred at length to the medical curriculum or to the medical qualifications because they are more or less fixed by the standards of the Medical Council in England, and any falling off from them would lead to Indian qualifications not being admissible for entry on the Colonial and Indian section of the Register.

Moreover, a strong Medical Faculty would adequately deal with details, and the Principal of the College, if a Fellow, or if not through another Fellow, can always move the University to make necessary changes in the medical course or examinations to bring them up to European level. No regular student is admitted into Calcutta Medical College unless he has passed the F.A. Examination or its equivalent, and under Rule X, Section V of the College Rules (copy submitted), all students, intending to finish their studies in Europe, are directed to the regulations of the British General Medical Council, in which it is laid down that Latin is a compulsory subject in the Arts preliminary. It will be seen from Section I of the rules that the responsibility of keeping the medical education of the College up to the proper standards, and the initiation of changes rest with the Principal and the Council. Both the University and Government, if moved through the authorised channels, have the power, and generally the will, to carry out necessary changes. It will be seen in the rules that great care has been taken to warn students of their exact position as regards the General Medical Council, and that the educational course is so arranged as to enable them to satisfy all its requirements. From the beginning of the academic year 1901-02, the minimum of marks qualifying in certain College test examinations was raised, with the concurrence of the Principal and of the Director of Public Instruction, who is consulted on all matters of the kind by the Inspector-General of Civil Hospitals before submitting proposals to Government. In framing the rules in 1901 to take the place of the last obsolete rules which had been drawn up so far back as 1856, it was one of our objects to introduce useful regulations of other Indian Medical Colleges.

*Faculties of Arts.*—I have several reasons for tendering remarks on the subjects which are connected with the Arts' Faculty—

1. Because I have felt that the only way in which we can effect real progress in the health of the people and in sanitary measures is to educate all classes in right views on the subject, and particularly to train up all our teachers so thoroughly to understand what is required of them as to ensure, that, by example as well as precept, they shall properly influence the young in all the educational institutions in the country in the above respects.
2. Because I am anxious that the University should encourage some form of post-graduate training so that its graduates may continue their University education and obtain its full effect, which is, as I conceive, to make them men of culture, who have not merely taken degrees as a means of earning a livelihood but have been taught how to think and to carry on their studies to the best advantage throughout life.
3. Because I have long been greatly interested in the economic and art progress of India and have, therefore, had a strong desire to obtain the assistance of the Universities, which above all things should look to practical results, in carrying out my views. On the first point the University has passed resolutions to the effect, that Hygiene and Sanitation are to be considered in framing questions in examinations for all degrees, and has made these matters one of the optional subjects for the First Arts qualification. The Director of Public Instruction, with the approval of Government, has announced that those persons who possess a sanitary certificate, all other things being equal, shall be preferred for appointment as teachers. Medical and Engineering students in like manner are to be preferred if they possess the sanitary qualification. It has been objected that, as regards medical students, what is

wanted is a better practical knowledge of English and that time is therefore wasted in acquiring knowledge, which, in their case, is superfluous at an early stage in their education, but surely this will be best ensured by the course of reading and tuition in familiar language which the subject demands. Moreover in every stage of education *mens sana in corpore sano* is a good motto for all students. I therefore trust that the University will never allow this subject to fall into a minor position. Some years ago I made enquiries into the health conditions of students in a large college, and I discovered that the more advanced the position of the youth in the institution, as a rule, the less physically fit he became, so that the young men in the M.A. Class were less strong than those who were studying for the B.A. degree and the latter were weaker than the boys who were working for the F.A. It is true that many of the elder students were also overwhelmed with the necessity of providing for a wife, and perhaps a child or two, but this does not altogether account for the condition which I, and my staff, came to recognize as the student's disease. The well-known evil I have alluded to was in the mind of a native member of my own service who had two clay figures prepared at Krishnagar—one representing a thin, spectacled, care-worn India student carrying a wife on his back, another a European lad hastening merrily to school with nothing but a light load of books. It is for reasons such as these that I welcome the establishment of athletic clubs, but they are of no value unless all students are compelled to use them. In no country so much as India would it pay better than to give marks for distinction in athletics. In our medical schools some attention is being paid to this important matter. It would be in the best interests of most individuals and of the University if a certificate of physical fitness were required before a student would be allowed to study or offer himself for examination for any high degree. In all occupations a sound B.A. is better than a damaged M.A. We are in much danger of forcing too much learning into weak and perhaps broken vessels, which from physical unfitness greatly injure the case of higher education.

2. As regards general culture the great want is of residential colleges but unfortunately many difficulties arise in India and especially in Calcutta in providing them. The hostel system should, however, be much extended and some

\*The Indian custom of studying in *toles* as at Nadia is entirely in favour of such a system.

of the teachers should be urged to live with the students or in the same enclosure.\* A distinguished Indian head of a college, who himself possessed a large library which he loved, and in which he died, told me that he only knew one other Calcutta graduate of his year, who had a library which was not exclusively devoted to his particular profession, in short that very few men of his time read for mere love of learning after leaving the University. I would suggest, therefore, that post-graduate courses should be given and that graduates, should be encouraged to form lending libraries of first class literature in connection with the colleges in the larger towns. My experience as the Honorary Secretary for many years of a large museum confirms my friend's views.

I could never induce the students of the neighbouring college to spend much time in examining the many beautiful models and specimens, which I had gathered together in connection with those branches of knowledge, which are capable of illustration in that way, unless they bore directly on some paying examination subject. What our Universities should do, and no doubt hope they are doing, is to endeavour to inculcate a love of knowledge for its own sake.

The experience of the Asiatic Society is somewhat similar. I should like it to take a higher place, in this respect, amongst natives of India, who ought to join it in larger numbers. It is not always the man of University training who distinguishes himself the most in the Society, though I admit that there are brilliant instances to the contrary.

In my opinion one of the greatest services to education that the University could perform is to encourage the science of teaching by establishing degrees in pedagogy and, if, for the higher appointments in the colleges, only those who had secured such marks of qualification were preferred, a distinct advance would be made, since learning alone does not make a good instructor but manner and skill in interesting others and in imparting knowledge to them. Normal schools do much, but the seal of University approbation would do more. As a pedagogue should be sound in body as well as in mind, he should possess a certificate of health and of fitness to impart instruction in elementary hygiene and sanitation.

3. The decennial Art Conference of January 1894, of which I was President, discussed the question of economic and art education in connection with the Universities.

In my opinion the Universities can do more than at present to aid in promoting technical education and with it the economic and art progress of the country.

The desirability of making drawing a compulsory subject for those who appear at the University and even Middle Class examinations was fully discussed at the Lahore Art Conference.

The Bengal member said that "drawing was the basis of all technical knowledge." The Principal of the Bombay School of Art thought that drawing might very well be substituted for one of the compulsory subjects.

I read extracts from an address at the National Art Congress at Birmingham in 1891, which emphasized the necessity of making drawing a compulsory subject in English, as it was in French, Belgian, Swiss, Swedish, German, and Austrian education, as well as in some of the United States and Australian Colonies. The Conference commended the subject to the consideration of the Educational Departments, and it was understood that the chief difficulty with them was the large number of subjects with which the student was already burdened.

In a Despatch on the proceedings of the Art Conference and Schools of Art the Secretary of State for India refers to the value of drawing in the following words:—"Even apart from industrial pursuits, a system of State education should develop the powers of observation by training the eye and hand. Drawing is, therefore, a valuable element in the general education of all classes."

It seems to me that these words apply as strongly to Universities, which should lead in all educational matters, as to State departments. I hope, therefore, that the question of making drawing a compulsory subject may now be taken up again.

For a medical student I consider it to be most important. He should be able to make at least rough sketches, which would impress many things far more vividly on his mind than a mere note could do, but he cannot easily acquire the necessary facility in doing it unless he has been taught a little of the subject early in his educational career. Moreover a youth must be able to draw a little himself in order to understand the sketches of his teachers, whose work is often far more effectively done when it can be illustrated by a rough diagram or drawing than when it is carried out in the ordinary way.

Sir Alfred Crofts, in a letter on the question of continuing the maintenance of Government Schools of Art, shows that as long as drawing is an optional subject few students will take it up, and expresses the hope that ability to draw will become a common accomplishment of the rising generation. If, however, it is impossible as yet to make drawing a compulsory subject for all students it seems desirable that all who aim at teaching others should be able to illustrate their subjects by drawing simple figures on a black board. No school master in England can get his certificate unless he is able to do so much.

The Art Conference also suggested that periodical visitations should be made to Schools of Arts in order to ensure some uniformity of action and to prevent the work of any particular institution from becoming too narrow or too provincial. It was suggested that the Universities might aid the experts and local educational authorities by appointing members to represent them on such committees.

*The 8th March 1902.*

**T. H. HENDLEY, Colonel, I.M.S.**



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# NOTE ON UNIVERSITY REFORM



BY

**BRAJENDRANATH SEAL, M.A.,**

*Principal, Victoria College, Cooch Behar.*



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# NOTE

## ON

# UNIVERSITY REFORM

In submitting the following note, I would state that instead of merely setting down my views, criticisms, and suggestions on the various points raised in the Commission's queries, I have thought it proper to enter very briefly into the main principles that should now guide us in remodelling our Indian Universities, having regard to their past history, as well as present opportunities, resources and environments; for this purpose, a wide comparative view of existing types of Universities in the world, their teaching, methods and organisation, will be found very helpful. I would urge that it is now high time for us to survey the situation from a broad universal standpoint, instead of concentrating our attention wholly on occasional expedients or the narrow practicalities of the hour. If, then, analogies with western Universities must be admitted as relevant, let us not confine ourselves to London, Oxford or Edinburgh under the guidance of insular bias or personal predilection; let us extend our view to the whole civilised world, and set our academic clock going by the world's chronometer. If we have at last been roused from our lethargic stupor, and awakened to the necessity of moving forward, let us follow by all means the universal trend of academic movements, and cut out a path for ourselves to the universal modern goal.

**Historical Retrospect** :—Indigenous Education, pre-British and post-British :—Respect for learning, says Dr. Leitner, has always been the redeeming feature of the East. The Hindu Shastras elevated learning into a religious duty. Learning opens the gate of the Moslem's Paradise. A powerful religious sanction thus lent its support to the institution of learning, as to every other social function in communities of a primitive type.

**Educational Institutions** :—Besides the Hindu Pathasalas or village schools teaching the three R's, commercial and agricultural accounts and mensuration, there were the Mohammedan Mahajani or common schools attended by Hindu and Moslem alike, which taught Persian and imparted the education and manners of a gentleman after the oriental pattern. There were also the Hindu and Mohammedan Colleges of learning (the *tols* and *mukhtabs*). There were centres of Brahminic and of Moslem learning like Benares, Nudda, Patna and Lucknow, which congregated various schools of letters, philosophy and theology, and created an academic tradition. There were Mathas and Asramas, as of the Dasanami sects, which, with their splendid libraries and organisation, formed powerful agencies for the preservation and diffusion of abstruse and recondite branches of learning. There were also Buddhist Sangharamas and Viharas, monastic institutions, which were Universities, i.e., which organised encyclopædic culture on the scale of El Azhar in Egypt, and imparted instruction to thousands and tens of thousands of advanced students from all India, and even from Tartary, Central Asia, China, Japan and Korea.

**Extent of literacy** :—In 1822, when an alarming decline of learning had taken place, Sir Thomas Munro found in the Madras presidency one school to every 500 males, and the Board of Revenue calculated that one out of every three boys of school-going age (from five to ten years) was receiving instruction. I would largely reduce this official estimate, but at the lowest computation, the proportion cannot have been less than 20 per cent. The special investigations of Bentinck in the Calcutta Presidency and of

Elphinstone in the Bombay Presidency led them to conclude that, in 1820-1840, i.e., in one of the darkest periods of Indian educational history, one boy out of every ten of school-going age was receiving some kind of education. An earlier Census, that of 1813, gave an average of 1 out of 19 males as able to read, which makes it probable that at least 30 per cent of the boys were at school (as against 24 per cent. from British India at the end of the nineteenth century). Dr. Leitner also notes for the Punjab—"the lowest computation gives us 330,000 pupils (against little more than 190,000 at present) in schools of various denominations, who were acquainted with reading, writing and some method of computation" (Report on Indigenous Education in the Punjab). This is the plain unvarnished fact, and it will in no way surprise those who are familiar with the history of Education, and are therefore aware that the Manchester system is of Madras origin, and that, so late as the end of the eighteenth century, India gave England the first hint of elementary schools for the masses.

**Statistics of Collegiate Education** :—Turning now to the Colleges of learning, we find that, under circumstances of an unprecedented decline which affected the higher education even more than the lower, the *tols* were to the Pathasalas in the proportion of about 1 to 3 in the number of schools, and 1 to 10 in the number of scholars (Prof. F. W. Thomas's History and Prospects of British Education in India). Combining this with the fact that at least 20 per cent. of the boys were under instruction, we may safely conclude that, in the more advanced districts at any rate, not less than one in four hundred of the male Hindu population was receiving an advanced instruction in some branch of learning. At least half of this number, i.e., one out of eight hundred, may be set down as undergoing a training, which corresponds to the University stage of education in our days. This approaches nearly the record of Scotland where, before the recent decline in the number of students, the Universities could claim one out of every five hundred of the male population. At present, in British India, if we include the students attending *tols* and *mukhtabs*, the proportion is one out of twelve hundred of the male population. One out of five thousand reads in a public collegiate institution, and one out of fifteen hundred in *tols* and *mukhtabs*. In other words, for every hundred Hindus who devoted themselves to the higher learning in Pre-British India, 16 have been taken themselves to the new learning—and the residue has diminished by 36 per cent. The total number of Hindus engaged in advanced studies has been reduced by a third.

**Curriculum of the *tols* and *mukhtabs***. In more primitive times, the Chatuspathis taught particular Sakhas of the Vedas and the six Vedangas (Vedic lexicon, chanting, prosody, grammar, rituals and astronomy). This was supplemented by professional instruction in one or other of the Upavedas, the Institutes of Law, Medicine, arms, Music &c. Later on, the theoretic instruction was confined to Trayi (Vedic Sakhas with rituals), the philosophical disciplines, Law and Polity (cp. the *quadrivium* of mediæval Europe). This was supplemented by special or professional training in one or more of the thirty-two so-called sciences, and the sixty-four Kalas (arts industrial as well as æsthetic). Yagnavalkya's enumeration of the fourteen intellectual disciplines (*Vidya-sthanani*) also belongs to this stage. But in the mediæval *tols*,

the *Curriculum* was narrowed down, and there grew up special schools for literature, grammar, law, Nyaya, Vedanta, medicine, mythology, Tantric rituals &c. Lexicology, Grammar and the elements of Belles Lettres and Rhetoric were common to all the schools, and would be studied for a period varying from five to seven years or more. The specialisation would then begin. Advanced literature (including grammar, lexicology, Rhetoric, poetry and the drama) would take about five years, Logic, Metaphysics and Theology from ten to fifteen years, Law (the Smritis, the Sangrahas and the commentaries with elements of Mimamsa) ten years, Mythology (the Puranas) and Tantric Rituals, four years. The course of study often lasted, as Dr. Thomas notes, for twenty years, from the tenth to the thirtieth year. The period has been considerably reduced in the existing tols under modern conditions of life.

The curriculum of study in the Arabic *muktab* would include Etymology, Syntax, Rhetoric and Logic in the first three or four years, and subsequent courses of (1) Literature (for three or four years), (2) Jurisprudence or Tradition (for five years or more), and (3) Logic, Natural philosophy, Geometry, Algebra and Astronomy for five years or more.

Let us not superciliously dismiss these studies as 'learned lumber.' The Astronomy and Mathematics were not less advanced than those of Tycho Brahe, Cardan and Fermat; the anatomy was equal to that of Vesalius, the Hindu logic and methodology more advanced than that of Ramus, and equal on the whole to Bacon's; the physico-chemical theories as to combustion, heat, chemical affinity, clearer, more rational, and more original than those of Van Helmont or Stahl; and the Grammar, whether of Sanskrit or Prakrit, or of the Semitic tongues, the most scientific and comprehensive in the world before Bopp, Rask and Grimm.

Character of the intellectual discipline:—"The general characteristics," says Dr. Thomas, "of the instruction were impartiality and thoroughness. To the Pandit, nothing is so distasteful as incomplete enunciation of the heads, or imperfect treatment of the matter thus scientifically divided. Commentaries on commentaries are committed to memory. The minutest questions evoke discussion lasting for days. This kind of training produced its characteristic results—an unworldliness and devotion to knowledge, a want of practical sagacity, an intellectual isolation and class feeling." One marked feature of this mediæval scholastic training, is wanting in the Universities of to-day. Its grand object was a training in the dialectical method of handling scientific or philosophic questions. Every student was compelled to come out a practised dialectician, and underwent a severe intellectual discipline which gave sharpness, subtlety and strength to the understanding, and served as a propædæutic such as the philosophical faculty of the German universities alone can claim to impart in any degree in our days. While we have, without doubt, gained in useful information and practicality, in insight into human nature and mastery of life and experience, in observation and healthy objectivity of mind, our modern educational methods are far inferior to the scholastic methodology and dialectic as intellectual disciplines and exercises for sharpening and strengthening the mental powers. Our Indian Colleges, with their superficial smatter and mechanical cram, suffer most by the comparison. I have invariably found a Pandit educated in the tols a more powerful and dexterous logician, a more systematic and vigorous reasoner (though the thinking may be cast in obsolete moulds) than the average graduate of our Universities. An equally unquestionable and even more lamentable loss is that of the old spirit of unworldly devotion to learning which was so memorable a feature

of the Orient and of mediæval schools of learning.

### British Educational Policy in relation to Oriental Learning:—

Munro's minute on indigenous education, and Elphinstone's on the encouragement of oriental learning advocating the continuance of the Dakshina grants of the Peshwas are too well-known to need any but a passing mention. Macaulay's zeal for useful, practical and scientific knowledge brought on Lord William Bentinck's Resolution of March 1835, which decided in favour of English education to the entire neglect alike of oriental and vernacular education. Lord Auckland's minute of 1839, which closed the famous controversy between the Orientalists and the Anglicists laid down that although English was to be retained as the medium of higher instruction in European literature, philosophy and science, the existing oriental institutions were to be kept up in full efficiency. The Calcutta Arabic Madrasah founded in 1784 by Warren Hastings, and the Hindu Sanskrit College of 1824, were accordingly continued. The Educational Despatch of the Directors, dated the 19th July 1854, also took a comprehensive and impartial view. "It marked out the sphere of usefulness of all classes of institutions, oriental, English and vernacular, then working in the country, and it cared for the educational interests of the entire community." But the indigenous *tols* and *muktab*s were left entirely out of the scheme of the new Universities. As I have said elsewhere, our Indian Universities in their inception and methods, have been altogether alien, and unfortunately cared little for placing themselves *en rapport* with the indigenous ways and tendencies of thought, or the inherited cultures and humanities of the Indian peoples. It was the business of the Universities to engraft modern scientific thought and criticism and modern sociological aims and ideals on the old stock, but they chose to begin as if the Indian national record was a *tabula rasa*. They import the manufactured products of western life and civilisation, and in the meanwhile, the prolific faculty of the race is either growing to weeds or dying of inanition and atrophy, except in the few and limited directions in which it is creating worthy vernacular literatures. An Indian University on its literary, æsthetic, scientific or philosophical side, if it is not to be a sham and a pretence, must produce indigenous schools of science, art and philosophy, at once modern in their ideals, methods and standards, and Hindu or Mohammedan in their cast and character—schools that may take a valued place by the side of characteristic national schools in Germany, England, France, Italy, the United States and other western countries, and marching abreast with them press forward to the vision of the Absolute, a goal to which all roads, scientific and philosophic, artistic and social, are leading the race. No Indian University can become a national institution, if it ignore the literary scientific, æsthetic or philosophic heritage of the Indian peoples, whether Hindu or Mohammedan. Again, the transition from the mediæval to the modern standpoint was, on the whole, gradual and continuous in Europe; at any rate, it was a process of growth from within. In India, there is a violent gap, a breach of continuity, in the national life and consciousness, which has made genuine thinking impossible. We think in counters and symbols, in meaningless abstractions and second-hand formulæ, and are cut off from those original experiences of life and Nature which are the only springs of scientific or philosophic thought. Historic continuity in the national life, and consciousness can not be broken with impunity. At the same time the latter must outgrow its old wrap-pages and swaddling clothes. Leaving the

Asramas of the Rishis, and the Viharas and tols of the scholiasts, the Genius of the nation must come out into the cosmopolitan arena of modern life and interests. This problem of adapting the highest Hindu (or Mohammedan) thought and spirituality to modern ideals of life and the universe required for its solution successive generations of earnest students and thinkers familiar with the history of culture in the east as well as the west, and able to survey from the philosophic height of Universal History the march of the human mind in any particular race or age.

But abstract doctrinairism prevailed in the British educational policy. Sir Henry Maine, Sir Alfred Lyall, and other students of Indian Sociology have commented on the same blunder of rashly destroying ancient institutions and overturning the incigenous principles of Socio-legal and administrative polity, which has worked infinite harm in the field of civil government and legal codification. Indeed, Sir Henry Maine convinced the British rulers of the mischief of socio-legal experimenting and of the exploitation of India in the interests of abstract doctrinairism, and brought about a healthy reaction in the sphere of civil polity and law. But there has been no Sir Henry Maine in the British educational administration, to preserve and foster the inherited cultures and humanities of the people, and the incigenous instinct and aptitude for learning, and divert them to channels of modern thought and science. The Punjab University, it is true, created a faculty of oriental learning late in the day, but it was a case of Athanasius *contra mundum*, and for sheer bungling, it was fore-doomed to failure. But, even yet, the necessity remains :—our University must strike out a line of communication with the organisations of oriental learning.

Latterly, Government has lent its fostering care to these organisations in various ways :—(1) by instituting a number of Arabic Madrasahs with the Mohsin fund, (2) by instituting a central examination for the Madrasahs and prescribing definite and well-regulated standards, and (3) by instituting a system of examinations in connection with the Sanskrit College, by recognising associations of Pandits in different parts of the country, and by co-operating with them in the organisation and control of Sanskrit studies in Bengal. Some judicious distribution of stipends to teachers and pupils, and a proper administration of the Mohsin fund have enabled the Government at little cost to itself to exercise a healthy central influence on a large proportion of the respectable tols, Madrasahs, and associations of Pandits and Moulvis in the country. So many as 2770 students appeared in 1900 at the first and second Sanskrit Examinations, and 147 at the Sanskrit title examinations (the latter mostly in Rhetoric, Belles Lettres and grammar). So many as 200 presented themselves in the same year for the central examination of Madrasahs. But it is only the outlying fringe of incigenous learning that has been yet touched. Under the head of private institutions for advanced teaching, there were 1300 tols and about as many muktabas in Bengal in 1900, with about 12000 and 16000 students respectively *i. e.*, amounting to more than three times the *alumni* of the Calcutta University.

The question is—what is to be the relation of the Universities to these places of ancient learning, which still give a high training in the old scholastic methods and disciplines to advanced students all over the country, and harbour about four times as many *alumni* as all our modern Indian Universities taken *en masse* with their huge machinery and appliances?

#### Practical suggestions for widening the basis of the Calcutta University :—

In my view, the following tentative steps should be taken to put the University *in rapport*

with the centres and organisations of oriental learning :—

(1) The University should approach the Government with an offer to conduct the Central Examination of Madrasahs, and the Sanskrit first, second, and title examinations. The Examiners may be selected as heretofore from among the Pandits and Moulvis of the Sanskrit College and the Calcutta Madrasah, as well as from the Associations of mofussil Pandits and Moulvis, of a recognised status, and the stipends and rewards distributed or awarded by Government on the results of the Examinations.

(2) Courses may be prescribed for the examinations, and the standards will enable the University to exercise a powerful elevating influence on Sanskrit and Arabic studies in the country. Historical criticism, and a free and independent treatment of the subject-matter, may be encouraged; and once the Pandits and Moulvis are thoroughly imbued with the modern European stand-point, and the methods of European scholarship and criticism are joined to oriental thoroughness and specialism, the highest results may be expected in the cause of oriental Research, and for the Renaissance of Indian learning, such as the purely European or the purely Asiatic culture has necessarily failed to achieve.

(3) The Vedanta lecture-ship may be supplemented from time to time by lecture-ships on Hindu and Arabic logic, metaphysics, astronomy and materia medica; the Chairs to be filled by Indian graduates, who have mastered the corresponding Western sciences; and gradually the nucleus of a faculty of oriental learning may be formed round such central institutions as the Sanskrit College and the Calcutta Madrasah, which will then become University Colleges for such studies, in the proper sense of the term, though still remaining under Government. English classes for Pandits and Moulvis for instruction in European philosophy and science might also be opened on Dr. Ballantyne's plan. The M.A. examinations in Sanskrit, Arabic and Persian, Post-graduate research classes in Indian Epigraphy, Archaeology, and Philology, and the examinations of Pandits and Moulvis in different branches of oriental learning such as Vedic literature and Hadeesh, philosophy, law, astronomy, and grammar, may be so organised by the oriental Faculty of the University as to act and react on each other, and produce that fusion and intimate blending of Eastern and Western cultures and humanities, from which alone national Indian Universities may be expected to develop themselves, and take their distinctive place among the Universities of the world.

**Teaching Universities :—**The precise position of our Indian Universities, as well as the direction which our reforms must take, will be better understood after a brief survey of the reigning types and ideals of University culture. Broadly speaking, there are two dominant types of teaching Universities in the world (1) the type prevailing in Germany, France and Japan (2) the insular British type with varieties like the Oxford, the Edinburgh, the London, and the Victoria Universities. University education on the German pattern is a more specialised and advanced affair than that on the English model. The Gymnasien, the Lycées and the Gakkos, though termed High Schools, cover the first two years or more of the English University courses. The baccalaureate of the French Lycee, or the graduate of the Japanese Gakko, is therefore qualified to enter on the specialised studies of the University. In this system, then, secondary education is prolonged so as to comprehend the entire course of general and liberal education. The University is a highly centralised body generally under State control, spending as in Germany 42 per cent of

its income on museums, hospitals and laboratories, *i.e.*, on equipments and appliances of original work and research, and maintaining a large professoriate (about 1 University Professor to 11 or 12 students in Germany as well as Japan). "The German University may to a great extent be looked upon as Professional Schools giving an education which directly fits a man to earn his bread as a clergyman, a lawyer, a judge, a physician, a school-master, a chemist, an engineer, or an agriculturist". The University of Paris confers the degrees of licentiate and doctor after five or six years of special and advanced work. The Japanese system of University Colleges contemplates three or four years of advanced studies with post-graduate work, crowned in the end by a five years' course of severe work and original research in University Hall. The American Universities are a cross between the German and the British breeds with a more or less pronounced trend towards the assimilation of the German ideal.

**The Insular British type.**—This system comprises three divisions... (1) Universities like those of Edinburgh and Dublin in which the University Professoriate constitute the entire teaching staff (omitting recognised extra-academic teachers in certain studies); (2) Universities like those of Oxford and Cambridge, with affiliated colleges in the same town, the actual teaching being conducted by both college tutors and University professors; (3) Institutions like the Victoria University, with affiliated University Colleges in different towns, and teaching by means of college professors who have a University status. The London University as now constituted stands midway between the second and the third group.

The common feature of the British Universities is that the matriculation or Entrance Examination (where there is any) is too low, and that a great part of what is comprised in secondary education on the continent forms the mental pabulum of British freshmen and sophisters. In other words, the ordinary pass degrees of these Universities correspond to the finishing stage of the *Gymnasium*, the *Lycee* or the *Gakko*. They ensure the requisite minimum of liberal education. The Honour Schools are immensely superior, but except in one or two specialised schools like the Oxford Classical Moderations or Finals or the Cambridge Mathematical Tripos, they cover only a small portion of the advanced studies comprised in the University grade on the German-Japanese model. The bachelors of the non-literary or professional schools, Engineering, divinity, and medicine, have no conception of the post-graduate work and technical training incumbent on their fellows of the continental Universities. So long as secondary education in English public and voluntary schools remains in its present backward, disorganised, chaotic condition, the Universities cannot be brought sufficiently up to date. Still, more or less successful attempts have been made to raise the standard of matriculation. This, as is well known, has led to a considerable decline in the attendance at the Scotch Universities. Science studies have been organised, and Professional Schools more or less highly specialised by means of laboratories and Research Classes. The new King's College Laboratories in Cambridge for original work in the departments of physiology, anatomy, bacteriology, botany, geology, architecture and mechanics, the Engineering Laboratory opened by Lord Kelvin in 1894, the Berkeley Research fellowships at Victoria University, and, above all, the new Faculties of the London University, the schools of Engineering and Economics, are notable signs of the on-rush of the modern University ideal in centres of insular prejudice and conservatism.

In one respect, the British Universities of the second group, which have developed a collegiate system confined to a single town,—especially Oxford and Cambridge—are superior to every other institution in the world—they exercise a unique disciplinary influence on their alumni, such as is entirely wanting in the non-collegiate university systems of the German type.

**Precise Position of the Indian Universities:**—We, in India, have built on the English model, and began with imitating what was then a specially backward specimen of the English type—the Examining University of London. Our educationists, *alumni* for the most part of British or Irish Universities, if not of English public schools, have, with a few notable exceptions, been machine-made men, wanting in freshness and originality of ideas, in glow and expanse of soul, as well as in human sympathy and historic imagination. And so it has happened that, while Japan has developed a splendid system of *Gakkos* and University Colleges of her own in the last thirty years, British India has neither utilised the indigenous devotion to learning, having left it to waste places and the desert air, nor fostered those advanced studies and original investigations in the mathematico-physical or the historico-social sciences, or in the scientific Arts and Industries, for the sake of which the Rajah Ram Mohan Roy was prepared to leave his favourite Vedantic studies out of the curriculum of the public schools. Even that phenomenal enthusiasm for games and sports, for the mimic warfare of the play-ground, or the chase of the flying ball, which is so hopeful an augury of our academic progress, has not been inspired by our European Professors fresh from the regattas or the inter-University matches, but by large-hearted and sympathetic rulers, from Sir George Campbell down to Sir Henry Harrison and Sir Charles Elliott.

But I must not appear to be ungrateful. We have done better than could be expected of us, either from the example set before us, or from our resources in men and money. Though mere examining bodies at the outset, we have developed a collegiate system, and may be therefore said to teach through the affiliated colleges. Our Indian Universities correspond very nearly to the type of the Victoria University which also requires attendance on prescribed courses of academic study in colleges of the University, such colleges being situated in different towns, wherever adequate and efficient teaching may be provided through College Professors. One fundamental difference is that our Indian Colleges and College Professors have no constitutional status in the governing body of the University, and are so far extraneous and adventitious agencies, whereas the constitution of the Victoria University contemplates its being a federation of colleges, and the governing and teaching bodies of the colleges are represented in the governing body of the University. London also teaches through affiliated Colleges and recognised Professors, but the Colleges must be situated within prescribed limits, and the Professors are admitted into a share in the University management.

The fact that our Indian Universities teach through affiliated Colleges would not of itself militate against their being teaching bodies. Even at Oxford, "by far the largest share of University teaching (except in the case of the non-collegiate students) continues to be carried on by College tutors. Since the introduction of inter-collegiate lectures, *i.e.*, of lectures open to all comers from other Colleges without payment of fees, the function of University Professors has to a certain extent been superseded. Oxford class-men as a body are mainly indebted to College tutors for guidance of their studies in classical literature,

history, philosophy, political economy and theology, if not in mathematics and law."

The question is, therefore, not whether our Universities should be teaching Universities,—they are already such in a recognised sense—but whether we should have university Professors in addition to the existing College staff, and, if so, what they should teach, and how their teaching is to be accessible to the main body of our students, scattered as these are in different towns and provinces.

**Direction of necessary Reforms** :—From the above survey of recent academic movements and their universal trend and goal, it clearly results that the only hope of salvation for our Indian Universities lies in raising the standard of Pre-University Education, of matriculation, and of the liberal discipline implied in the Pass courses, and in developing, within the University, as our British prototypes have been fast doing for years, Honour schools and optional courses for specialisation, Museums and laboratories for advanced science, and Research classes and technological institutes for post-graduate work and professional training. All this must be done in view of Indian conditions and requirements, and in adaptation to Indian resources and environments.

**University *versus* College Professors—Centralisation *versus* decentralisation** :—Now the question of University *versus* College Professors is simply one of centralisation *versus* decentralisation. In every social institution, it is now an accepted principle that whatever cannot be achieved by local or individual effort from its magnitude, costliness or wide inter-dependence, must be left to central and corporate activity, and that everything merely local offers the best scope for the principle of decentralisation. The principle explains the difference of type and organisation between a British University and one on the German pattern. Centralisation is the watch-word of German and Japanese University management, as gigantic and universal schemes of encyclopædic research are their main object. The movement of decentralisation which has split up the Napoleonic University of France into the University of Paris and fifteen other Universities, each with an academic district of its own, is significantly connected with the fact that the new Universities are to be more partial and less encyclopædic, more adapted to local needs and resources, than the old rigidly formulistic organisation, which represented the Bonapartist imperial idea. England is, however, the home *par excellence* of decentralisation in every field of civil polity and institution. This is the characteristic mark of the collegiate system, which Oxford owes to the founder of Merton, but which is also the expression of the English genius; and even more, of the modern University Colleges, which are fast springing up in the centres of commerce or industry. These institutions represent local needs, and cultivate the applied sciences and the technological studies allied to the local industries, besides continuing the liberal education of the voluntary schools. In the same way, the predominance of College over University teaching in Oxford is based on the fact that the Pass and Honour schools of classics, philosophy and History are more of the nature of disciplines than of encyclopædic research, and do not involve any costly appliances or apparatus. "Natural science, in all its branches, demands a costly equipment of laboratories and collections with an organised staff of teachers, which can only be provided in some central institution like the University museum. The consequence is that students of Natural Science in Oxford gain almost all their instruction at the museum, and are so far removed from College influences. The same

applies in some degree to the infant schools of Oriental studies and English." In other words, liberal culture and discipline are within the scope of a collegiate institution,—advanced studies in the Physical and natural Sciences, and post-graduate research whether in letters, philosophy or science are more properly the work of a central University organisation. The Professional and technological studies are also of a highly centralised character, and must be cultivated by means of special institutions such as University Colleges.

Detailed application of the principle to the organisation of studies in our Indian Universities :—

This luminous and fruitful principle defining the scope of centralisation as well as decentralisation in their application to University studies will be found to be of the greatest help in determining the question of University as against college teaching in our Indian University organisation. The College and the University have each its proper scope of usefulness. The wisest and most natural arrangement would be for our colleges to confine themselves for the most part to the elements of liberal culture, which are a *sine qua non* of University degrees, and, as such, should form the standard of our ordinary Bachelor of Arts Examination. Classical as well as modern literature, the scholarly study of two or three languages, the elements of the historical and sociological sciences, some knowledge of the principles of life and consciousness, a certain philosophic discipline giving free play of mind and elasticity of intelligence, as well as the note of calmness, catholicity and equitableness, those habits of accurate observation and precise thinking which the mathematico-physical and experimental sciences are calculated to develop, and a cultivated taste which habitually seeks to clothe the useful in a garb of simplicity and beauty, are at the present day a *sine qua non* of liberal culture; and if our secondary education in the high schools cannot accomplish all this, they must have a place in the earlier stages of our University studies; and our colleges, whether in the metropolis or in the mofussil, may with wiser and better management, be converted into fit agencies for creating and conserving traditions of such liberal and humane modern culture. To secure this end, besides a suitable grouping and sequence of subjects, a competent body of College Professors will be necessary. The University must satisfy itself as to the competence of the Professorial staff before granting the privilege of affiliation to any college, and care must be taken either through periodical visits or through annual reports to see that the original standard is subsequently kept up. But for the ordinary Pass degree, I would deprecate the formation of a list of recognised teachers. This should be reserved for the Honour Schools.

For, with the commencement of specialisation in the Honour schools, special equipments and resources would be vitally needed, and no college should be allowed to compete for them; which does not possess sufficient equipments and collections to impart a sound training as distinct from successful coaching. Different colleges may and should go in for different Honour schools according to individual opportunities and facilities, the University insisting on a high standard of equipment in respect of library, apparatus and other collections, and drawing up a list of recognised teachers in different branches of knowledge, the attendance at whose lectures should count towards the keeping of a term for the Honour Examinations. As in the case of extra-academic teachers of the University of Edinburgh, every Professor who desires University recognition must submit a statement of his qualifications and experience together with a Syllabus of his course of lectures, and contributions of his, if any, to the branch

of learning he professes. In this way, modern and classical languages and literatures, modern and ancient History, sociology and political economy, Logic, Ethics and Metaphysics, and the mathematical sciences, may well flourish at select centres in different parts of the country. One college may thus found a school of philosophy, a second, a school of History, a third, one of political economy or sociological science, and, in course of time, the traditions of successive generations centred in a particular institution may lead to the formation of University colleges in mofussil towns, or of particular faculties or Academies serving local needs, exploiting local resources, directing the theoretic studies, and perhaps also, in the end, with due scientific equipment, the technological or industrial development of their particular districts. These mofussil colleges of the future will then correspond to the fifteen new Universities of the French districts, and the university colleges in the north of England. But, for a long time to come at any rate, it would be a fatal mistake to allow decentralisation for the Honour schools of the experimental or the natural sciences, or for the B.Sc. and M.Sc. examinations. For the Calcutta University, I have no hesitation in saying that the physical and chemical laboratories, and the nucleus of a physiological and geological collection, in the Presidency College, together with the proposed physiological laboratory in the Medical College, should form the single centre for the advanced and specialised studies of the Honour schools in such subjects. The Science Association may, under certain conditions, be recognised, in one or two branches, but for a long time to come, every effort after a multiplication of centres should be sternly and systematically discouraged.

So far, then, as Honour schools are concerned, I do not think that University Professors are needed. It goes without saying that the selection of the professoriate even in our Government Colleges admits of considerable improvement. The Classics Finals of Oxford are entirely unsuited to the requirements of literary studies in India. A certain classical training is of course indispensable, but wider modern culture and deeper English scholarship must also be held equally necessary. For our Honour schools, and our M.A. Examination in English, a scholarly knowledge of English (as opposed to a practical or working knowledge) is a *sine qua non*, but the phenomenal ignorance of Early and Middle English, or for that matter, of Tudor English, among our Professors, has led to our being content with a mere smatter of Anglo-Saxon, no Pre-Chaucerian Early English literature, and a homœopathic dilution of the Elizabethan Drama other than Shakspeare's for our highest English Examinations; and when the late Revd. Mr. Fletcher-Williams, who was, I doubt not, a very respectable English scholar, and a very capable lecturer on the University extension platform, delivered his addresses on the contemporaries of Shakspeare, it was a sight to see our college Dons sitting at his feet to eagerly imbibe knowledge which should have been the common possession of their pupils in the Honour school of English literature, if they had only been workmen worthy of their hire. We should have more men from the Oxford school of English literature to fill our English chairs. For the science classes, the Bachelors and Doctors of the faculty of science should be preferred, especially men who have done some post-graduate and research work at the King's college laboratories in Cambridge and the like institutions. At the present rate of progress, Oxford and Cambridge may, in ten or fifteen years more, rank beside the great continental Institutes and Academies, but in the meanwhile our Indian Universities would be vastly benefited, if the field of choice were widened

enough to include some Doctors from the great German Universities. Dr. Hoernle has singly done more for the cause of Indian philology and epigraphy than all the other members of our Bengal Educational service put together. Such men would infuse new life, fresh ideas and enthusiasm, and would, besides, be in close touch with the most advanced educational methods and movements of the day.

But with a better selection of the staff of our Government Colleges, the need of University Professors for Honour schools, even in the Experimental and Natural Sciences, would not be felt. But it is far otherwise with Post-graduate research and advanced work in any branch or sphere of knowledge, literary, philosophic or scientific. To such small groups of advanced workers, specialists who have made their mark in the field of original research must point the way. With this end in view, the Calcutta University should take statutory power, if necessary, and proceed to found Chairs, for a few select subjects in the first instance. For husbanding our necessarily small resources, it is best that direct competition with the proposed Tata University of Science should at first be avoided, as far as possible. I would suggest the tentative formation, under the auspices of the University, of post-graduate classes for (1) Psycho-physics, Psycho-physiology, and Experimental Psychology (2) the Philology of the Indian languages, classical as well as vernacular (3) Indian ethnology, anthropology and ethnography (4) Historical Research classes with Mss., Sanskrit, Arabic, Persian, &c., and with official records (5) Comparative Philosophy and (6) Comparative Religion and Comparative Mythology. As regards the two last subjects, and their importance for an Indian University, I would draw the attention of the members of the Commission to the prospectus herewith appended, of a proposed Journal of Comparative Philosophy and Comparative Religion, which I projected as a record of research work in connection with the Victoria College, a scheme I have not been yet able to carry through for unavoidable reasons.

I must say that, though the University need not organise research in subjects proposed to be taken up by the Tata University of Science, such subjects must be extensively cultivated in the museums and laboratories attached (or to be attached) to the Presidency College, the Medical College and the Sibpore Engineering College. Without post-graduate research in Mathematical and Experimental Physics, in Chemical Theory as well as in Technological and Agricultural Chemistry, and in Physiology and Pathology, it would be impossible to raise the facultative studies in these University Colleges to a standard befitting a University.

So far as the Calcutta University is concerned, a nucleus of post-graduate research is in course of formation. The Premchand-Roychand and Griffiths scholarships, the Government of India stipends, and the Elliott prize are small beginnings, no doubt;—but if only these scholars could work in libraries, laboratories and museums under the guidance of distinguished specialists and Professors, great results could even now be achieved. If the encouragement of research is to be genuine and sustained, it is high time that steps should be taken to organise research classes, either through University chairs, or in the University Colleges, as above proposed.

**Professional and Technological studies :** We have seen that the universal tendency is to cultivate these professional and technological studies in University Colleges furnished with special laboratories, collections and other equipments. By a University College, I mean a single



central institution for a facultative study, either incorporated in or affiliated to the University. Fortunately enough, this is also the type we have developed in India. For the Calcutta University, the Government Medical College and the Sibpore Engineering College have the status of University Colleges so understood. Centralisation is already secured, and our main business is to widen and deepen the existing foundations. As regards the school of law studies, a distinctly retrograde step was taken when the Government abolished the Law Department of the Presidency College in 1883. It should have been developed into a law college. I am aware of the complaints made in regard to the Madras Law College, but these do not touch the present question. Our existing law classes are down-right failures; they are a sham and a pretence. The attendance is a mere make-believe sort of a thing; the two years' course is only nominal; and the standard is unworthy of an academic body.

As I shall have no further occasion to speak of these professional and technological studies, I may as well here note certain suggestions for their improvement. All advanced work in subjects like physiology, Anatomy and Natural Science, whether connected with the theory and practice of Medicine, or not, must be done at the Medical College Laboratory. A *bona-fide* Professor of Physiology is the first requisite, and a Physiological and Pathological laboratory, a bacteriological department, a Natural History museum, a wing for the study of tropical diseases, and another for that of indigenous drugs, (including the materia medica of the Hindu and Yunani systems) are vitally needed. A physiological laboratory is, I believe, in contemplation; and the last Medical Congress threw such a searching side-light on the organised incompetence of our Medical Faculty to utilise the special opportunities of scientific research that they possess in the matter of tropical diseases, snake venom, indigenous drugs, and microbes, that any further delay in this matter may scandalise the learned world. It is also necessary that the Medical College should be dissociated from the military medical service, and transferred from the control of the Inspector General of Hospitals to that of the Director of Public Instruction. It goes without saying that only men of high scientific standing should be appointed to fill the professorial chairs.

It is a matter of rejoicing that the Seebpore Engineering College is being gradually converted into a technological institute (with a College of Agriculture attached). It is therefore desirable in the interests of the mining industry of the Province that the school of mining and metallurgy, be early taken in hand, as also the proposed department of electrical engineering. A Professor of Agricultural Chemistry should be added to the department of Agriculture; he should also carry on research for the utilisation of waste products.

As for the Law School, I have already suggested the formation of a Central College, but this should go *pari passu* with certain extensive changes in the existing curriculum of study, which, in its gross subservience to bread and butter considerations, lacks the characteristic note of a liberal University education. Roman Law cannot be banished from the facultative study of law in any University in the world, however remote from the centre of civilisation, and all difficulties connected with the Latin language must somehow be overcome. The Theory of the State and Comparative Politics, together with the Philosophy of Law whether studied in Kant, Puffendorf, or Herbert Spencer, must be grouped with the Theory of Legislation and cognate studies under the Faculty of Law. An ounce of insight into fundamental principles and methods is worth a ton of technical matter. An elementary know-

ledge of Medical Jurisprudence is also a grave desideratum. I would also point out that a Professorship of Comparative Jurisprudence and Comparative Law (with special reference to Hindu and Mohammedan law and the law of Christendom) is a crying necessity; and no Faculty of Law in an Indian University can without reproach ignore the claims of this science. To make room for these studies, large portions of the Stamp Act, the Succession Act, the Law of Probate &c., I mean the working sections which must be learned through practice, and which it is senseless to cram for an examination, must be cut out. The course should also be raised to one of three years.

**Faculties.**—I have already stated that central institutions like University Colleges are necessary for professional and technological studies, as well as for advanced work in the experimental and natural sciences; and I would at once say that each University College should be connected with a separate faculty mainly formed out of the governing body, the professoriate and the graduates with Honours. We have a Faculty of Engineering, and a Faculty of Medicine, fairly answering to this description. A Faculty of Law could be formed round the nucleus of a Central Law College, and it would not then be necessary to adorn the register of this faculty with the name of every practising lawyer on the Senate. A separate faculty of science in connection with the B. Sc., the M. Sc., and the M. A. and Preachand-Roychand Examinations in science should also be created round the nucleus of the Science Department of the Presidency College (which may very well be constituted the University College of Science).

Being on the question of separate faculties, I may as well remark that the sub-division of our unwieldy Faculty of Arts is only a matter of time. I would propose a two-fold division—into a faculty of letters, and a faculty of philosophy; and again sub-divide the latter on the German model, into the philosophico-historical and the mathematico-natural sciences. Besides the three faculties, then, of letters, the philosophico-historical and the mathematico-natural sciences, there would be the faculties of professional and technological studies, namely of Law, Medicine, and Engineering (including Agriculture, Technology, and, if necessary, Architecture.)

**University Teaching:**—Essentials of a sound system:—

A sound organisation of University studies is impossible without a proper system of preparatory training in the secondary stage, and the latter is unattainable without a recognition of modern studies by the side of the old classical or literary education. But before the principle of bifurcation is introduced, there must be, in the primary stage of secondary schools, a common course of elementary studies, comprising the Kinder-garten, object lessons, every day science, training of the senses, the three R's, one classical language and its grammar (English in this country), the vernacular, history (in anecdotes), Geography (with sand and clay modelling), fairy-tales, story-telling, a literary text-book for healthy emotional and imaginative training, drawing for the hand and eye, manual training and Sloyd work, music, action-songs, drill and physical exercise. Bifurcation next comes into play. The upper forms must have a classical (or literary) and a modern side. The classical side, corresponding to the Gymnasium, will add two more classical languages, History and Geography, elements of Physics, Chemistry and physical geography, elementary Mathematics (Arithmetic, Algebra, Geometry and Trigonometry), and a Primer of Logic. The modern side will cultivate one more vernacular language,

History and Geography, physics, chemistry, Applied Science and the History of Inventions, Mathematics, a Hand-book of Law, Citizen-ship and Useful Information (*e. g.*, as to economic products), and the elements of political economy. The modern side (corresponding to the Real School), it must be carefully noted, is no form of special or technical training. It is a course of sound liberal and general education in accordance with advanced modern ideas. Ordinarily boys would leave the secondary school at sixteen or seventeen.

The classical side is directly a preparation for University studies, but the 'real' or modern studies will ordinarily lead on to special schools, commercial, industrial, agricultural or sub-professional (if I may so term the Medical, Engineering and Law Schools of the secondary grade). At the same time, as has been done in Prussia and Wurtemberg, where the Realschule and the Realgymnasium have been affiliated to the Technological Institutes and Professional Faculties of the University grade, we must take care to provide a possible filiation for those who desire it to the higher University courses in the Faculties of Professional and Technological studies.

Coming to the University organisation itself, it will be seen that the University grade of education must comprise the following indispensable elements :—

(1) A scheme of general and liberal culture serving to impart a mental discipline characterised by the philosophic virtues of wisdom, moderation, freedom, equitableness, and calmness, and the scientific marks of accurate and alert observation, healthy realism, individuality, and a fertile inventiveness of mind.

(2) Special studies in Science, or letters, mainly in the interests of the advance of knowledge, research and speculation. Such specialisation is to be the note of the Honour Schools, of Doctorates, and of post graduate and research classes.

(3) Practical or Technological Schools—to train up men for the various needs of State and community, including the industrial and commercial interests. Besides the old Schools of Law, Medicine, Divinity and Engineering, new schools of technology, mechanism, Agriculture and Pedagogy have forced themselves even on the most conservative Universities. These practical studies of the University grade must be preceded by the elements of general and liberal culture, either in the Real Schools, the Real Gymnasium or other secondary Schools, or in the earlier stages of the University courses.

**Relation of (2) to (3).**—The special post-graduate studies in science and letters are being brought more and more in intimate touch with the technical work under the third head. The Pasteur Institute combines research with practical applications as in checking rinder-pest among cattle, or pebrine among silk-worms. The researches in Synthetic Chemistry in Germany and France have a prevailing reference to the needs of national commerce and the manufacturing industries.

**University Teaching.**—Scheme of studies and examinations in our Indian Universities :—

Of these three groups of University studies I will dismiss the third, as this has been already touched upon, I will also pass over the subject of post-graduate research, as I have already made my suggestions on this head. I therefore proceed to take up the organisation of studies for the Pass and Honour Schools.

We have already seen that in the Indian University system as in its British prototype, a pass degree is intended to complete a course of general and liberal education. A modern humane

culture implies the following acquirement and training—two classical languages and the vernacular, Art and Art-criticism, a course of Universal History, with special knowledge of modern History, the elements of Social Science and Economics, Logic and Methodology, Psychology as a Natural Science, Ethics, philosophical discipline (comprising Epistemology and Metaphysics,) Elementary Physics, Chemistry and Physiology, and Elementary Mathematics (Arithmetic, Algebra, Geometry, Trigonometry, Elementary Kinetics, and Descriptive Astronomy).

All this will be the common training of the Pass and the Honour schools, but the latter will also pursue special studies in particular groups of subjects. Assuming sixteen to be the minimum age of matriculation, the course should extend over four years. I may note that a baccalaureate of a French Lycee graduates at 18 years of age, and that the great English public schools teach boys up to their nineteenth year. An English graduate is ordinarily twenty-two or twenty-three, and considering that we orientals mature earlier, we may fairly expect our young men to come out as bachelors at 20 or 21.

Two general or University Examinations, as at present, should suffice—the Intermediate, Previous or F. A. Examination, and the Final (or Degree) Examination. The subjects should be arranged in due sequence and groups for the two Examinations, forming the F. A. and B. A. curriculum. Both the F. A. and B. A. Examinations should be split up into two parts, one to be held at the end of each academic year. The Professional or Technology students other than those of the law school should go through the shorter intermediate course of two years ; and for them, as well as for the certificate-holders from the modern side of our secondary schools who may want to join the University classes of the professional or technological Colleges, a separate F. A. or intermediate Examination should be devised in such a way as will enable the medical and engineering courses to be reduced by a year. They will study the general subjects in the Colleges for general instruction, and the special or technical subjects of their intermediate or F. A. Examination in the Professional or technological Colleges.

**Grouping or sequence of subjects :—**The general F. A. curriculum :—The first two years of the University should comprise the following studies :—English, and Sanskrit (or Arabic, Latin, Greek or Persian) classics studied as literary classics, with composition ; master-pieces of vernacular literature with æsthetic criticism, Universal History (Ancient History as in Taylor, and general outlines of European History as in Freeman), Elements of Logic (Jevons), the Elements of Psychology (as in Professor James's smaller book), Physics and Chemistry (as in Ganot and Jago), Mathematics (Algebra, Euclid Book VI and select propositions from Book XI, Plane Trigonometry, Geometrical Conics, Elementary Mechanics and Descriptive Astronomy), and either the Elements of Political Economy (as in Mrs. Fawcett) and the Elements of Physiology (select chapters from Huxley's Elementary Lessons), or a modern European language (German or French) or a second Asiatic classical language (Sanskrit, Arabic or Hebrew). What is called in Madras and Bombay the compartment system of Examinations should be allowed in Calcutta (as is done in Edinburgh) for both the F. A. and B. A. Examinations. In other words, a student who has attended the regular course should be allowed to take up a particular group of subjects at any Examination, and on his showing satisfactory progress (not merely coming up to the minimum) be exempted from future examination in that group.



Special F. A. Examination for the Professional students :—

Modern English Prose, and English Composition, and master-pieces of vernacular prose and poetry with æsthetic criticism, History of Greece (Primer) and of Rome (Primer) and General Outlines of European History, Elements of Logic, Psychology and Political Economy, and a group of special or technical subjects subsidiary to the particular professional or technical subject selected by the candidate.

B. A. and B. Sc. Curriculum :—The principle of bifurcation is already recognised at this stage in our Indian Universities (Bachelor of Arts and Bachelor of Science). The further subdivision of the B.A. curriculum into the A. course and the B. course in the Calcutta University, is illogical and unsymmetrical. The B. course should be abolished, as soon as the B.Sc. courses are well-taught and organised in the Presidency College.

The B.A. curriculum will then stand thus :—English Classics (Prose, Poetry and the Drama) including Shakspeare, Milton, Burke, and specimens of modern Prose and Poetry, with one modern novel, History of English literature (as in Stopford Brooke), History of English language (select chapters from Smith),—English classics to be studied from the standpoint of literary æsthetic and historical criticism; Art-criticism (selections from Goethe, Sainte-Beuve, Coleridge, Carlyle, Matthew Arnold and Ruskin); Sanskrit, Arabic, Latin or Greek classics, Grammar and Composition with chapters from Macdonell's History of Sanskrit literature &c., master-pieces of Vernacular literature with vernacular composition, the History of England and of India, Logic, Deductive and Inductive, Ethics, Elements of Epistemology and Metaphysics, Physiology, Psychology with Psychophysics and Psychophysiology, Political Economy (as in Fawcett), and either Sociology (as in Spencer's Study) and the History of Rome (Shuckburgh) and Greece (Oman), Hallam's Middle Ages (select chapters), and the History of Europe since the Renaissance, or a second modern European language (German or French), or a second Asiatic classical language (Sanskrit, Arabic or Hebrew).

The B.Sc. courses have been very judiciously selected and grouped, and I have nothing to add except that the Mental and Moral Sciences, or at any rate, Mental Pathology and Experimental Psychology (together with Psycho-physics and Psycho-physiology) should be recognised as one of the optional subjects for the B.Sc. standard. I would also make it compulsory on all B.Sc. students to go through a course of the Philosophy of science (as in Herbert Spencer's First Principles, the Essays and Addresses of Huxley, Helmholtz, Kelvin and Clifford, and in the case of students of the biological sciences, Darwin's Origin of Species and the works of Hæckel, Weissmann and Romanes). The Logic of Science (as in Jevons' Principles of Science) is also indispensable, but this has been already included though very imperfectly studied.

Honour Schools :—I would allow Honour schools for the F.A. as well as the B.A. Examinations, *i.e.*, at every stage of the University course (as in Dublin, and Oxford after Responsions). Honours might be taken in one or more groups of subjects. Specialisation and advanced study is to be the note of Honour schools. Thus at the Historical Honour schools for Finals (B.A. degree), I would prescribe in addition to the Pass course a special knowledge of a particular period of European and of Indian History, with records like the Siyuki, the Seir Mutaqherin, the Rajtarangini for Indian History, or memoirs like those of Comines and Joinville, or Walpole and

Bedford for European History. I would also prescribe a few select chapters from Mommsen, Merivale, Grote and Gibbon to familiarise the students with the study of historical classics. For the Honour English school, I would set unseen passages from a certain number of specified authors, (as Homer and Demosthenes, Virgil and Cicero are specified for the Classical Honour Moderations in Oxford), and thus baffle cram and smatter by methods which have been found so successful at Oxford, and in the English Army Examinations. I would also demand a special knowledge of the literary history of a particular epoch.

**Particular subjects :—**English :—Our English teaching in the high schools has been a failure. The University Entrance Examination is to a great extent responsible for the *fiasco*. For some years the University demanded an undue amount of grammatical niceties and linguistic minutiae from the would-be matriculates. Fortunately, this philological craze passed off, and a practical working knowledge of English with facility in composition is now insisted upon. But the mischief is that the questions from the text-book with the credit assigned for memorising verses, put a premium on cramming; and the veriest ignoramus who cannot compose a sentence of decent English manages to scrape through with a whole skin. I am not for the abolition of a text-book of English literature, for English must be taught here as a classical language is taught, with minute exegesis, philological notes textual and verbal criticism, and all the apparatus of a scholarly study of languages. If this is lost, the discipline of learning a classical language is gone, and that is too valuable to be needlessly sacrificed.

The real roots of the evil are these: Many persons, who may be clever in other respects, have no literary or linguistic aptitude. In their case, teachers must be content with a practical working knowledge of a language. The Arts course of a University Education is not intended for these. Unfortunately, as the F. A. and B. A. Examinations are the only pass-port to the professions and services in India, and as no alternative practical courses have been designed to meet the wants of business or commerce, people who are constitutionally unfit for high literary or linguistic studies, being born with a defective organ of language, are pressed like dumb driven cattle into the University fold, or the University shambles, as others would put it. The obvious remedy is bifurcation into a literary and a modern course. Again and again I say, bifurcate. A practical knowledge of English would suffice for the modern side, and this would also be adequate for the purposes of the special F. A. Examination for the Professional and technological studies, as also for those studies themselves. A University education of a technical or professional kind would not be ultimately denied to them, and the matriculation and F. A. Examinations on the literary or classical side might encourage a literary cultivation of English as a classical language, with more success and more specialisation than heretofore.

Again, the way in which English is taught in the lower classes is faulty in the extreme. English should be taught in the same way as French, German and other continental languages are now taught. The methods of Otto, Ollendorf and Sauer are real improvements on the old classical device of grammar-grinding and written exercises. We learn a language, in short, more by speaking it and hearing it spoken than by artificial exercises in Syntax or Idiom. Conversation, questions and replies to questions as in the Robinson lessons of the German elementary schools, constant and familiar use of certain simple forms of clauses and phrases, the sentence

taken as the unit of speech rather than the word, the co-operation of the tongue and the ear in reciting page after page, these are the surest, most rapid and most powerful means of learning a foreign language. They are the conscious imitation of the unconscious processes by which we learn to speak our vernacular in infancy.

Vernacular languages of India :—The recognition of the Vernacular in the University grade of education in Europe has passed through many phases, since Dante wrote his *De Vulgari Eloquentia*, and Boccaccio delivered public lectures at Florence on the *Commedia Divina*, and since the *Accademia della Crusca* immortalised itself by its labours on behalf of the Tuscan tongue. But now that even Oxford has its school of English literature, thanks to a valiant little band of pioneers, and an Indian Vernacular under the doughty championship of the late Mr. Ranade, has won recognition for itself at the M. A. Examination of the Bombay University, there is no ground for the apprehension that our Vernaculars should receive scant encouragement from the Calcutta University. We have an optional paper on Bengali composition at the F. A. and B. A. Examinations. This is a sop to Cerberus, but I am very much mistaken if the Cerberus of the *Sahitya Parishad* is not too wide awake to be so satisfied. As a matter of fact, an intellectual appreciation of the English classics from the literary and artistic point of view will be impossible, until our young men develop æsthetic sensibilities and preceptions, and unless their minds learn to hold the mirror up to nature, and catch the glow and fervour of the light that never was on sea or land; and the master-pieces of vernacular literature are exactly fitted to work in them this transformation. The best commentary on Milton's *Paradise Lost* to a Bengali youth is Hemchandra's *Vritra-Sanhara*, and Madhusudana's *Meghnadbadha*. They are revelations of the soul,—flashes of the inner vision, and chasten, purify and exalt the youthful mind with vast conceptions and indefinable and mysterious longings.

Besides, in the Honour school of letters, both for English and Sanskrit, two special studies of the highest significance would be furnished by the Indian vernaculars :—(1) a paper on comparative literature which may well be prescribed as optional (2) the philology of the Indian vernacular should be added to that of the English or the Sanskrit language. English Philology would be more intelligently appreciated if read *pari passu* with certain chapters from Beames, Hoernle or Grierson.

Finally, in the post-graduate research classes for Indian Philology as well as in the Historical Mss. classes, a knowledge of at least two Indian languages would be a *sine qua non*.

#### Mental and Moral Science.

Philosophy in the ascendant :—The decadence of philosophical studies in English Universities (with the partial exception of Oxford which has been the home of a revival since the days of Green, and of Edinburgh, where the *ingenium perfervidum Sclorum* has always kept up a sort of Alsatian sanctuary for a fugitive and bankrupt philosophy) nowhere comes out more strongly than in Dr. Sully's hesitating plea for philosophical studies addressed to his countrymen.

But for the real position of philosophy in the home of advanced culture, hear Dr. Paulsen of Berlin :—"In the world at large, philosophy is on the upward trend. The time of depression that followed in the second third of this century upon the speculative craze of the first third is gone. The sciences have long begun to be reconciled with philosophy. Philosophic thinking grows everywhere out of the sciences themselves, out of physics and mathematics, out of physiology and

biology, out of history and philology, out of law and political science. General culture also, which seemed anxious to content itself with a merely physical view of things, begins now to feel that philosophy is indispensable. In the University, philosophical instruction is again in the ascendancy."

Position of Philosophy in India :—We in India conform more to the German than to the English model in this matter of Philosophy. Our Indian people are born metaphysicians. If you don't supply them with the genuine article, they will be content with a false and mischievous philosophy. Nothing could be a greater mistake than to suppose that mere fact, mere science, history or literature would satisfy the Indian's soul. Help him by all means to cultivate the modern scientific attitude, and the historic sense, but cultivate at the same time the philosophy of science and the philosophy of History, or else the Hindu at any rate will turn from them with a sense as of hollowness and mockery. Besides, the philosophic discipline is fast coming to be a substitute of the old-world classical training even in the academies of the west, and for those who are brought up in modern scientific studies without the Aristotelian or Platonic classics, the modern philosophical view of the world is all the more necessary as an element of University training. Lastly, in the higher stages, the modern philosophical sciences and systems must be sought to be filiated to the indigenous Hindu or Arabic schools of thought. This is so, partly because the chief discipline of philosophy lies not in any individual system or body of dogmas but in the appreciation of the immanent movement of thought and reflection, so far as it appears in the successive rise and disappearance of systems, so that the study of philosophy is synonymous with comparative History of philosophy. But the chief consideration is, as has been already stated, the formation of Indian schools of thought, of science, art or philosophy, which, while in full rapport with modern scientific criticism and philosophical norms, will stand in a line with the main products of the Hindu or Mohammedan consciousness in the past, and carry forward the subsidiary national development to the universal modern goal.

In accordance with these ground-ideas and principles, I proceed to make the following observations, regarding the study of Philosophy in the Calcutta University.

Fortunately in the A. course, we have a sufficient recognition of the principle that in the absence of Sanskrit or Greek Philosophical classics in the classical language section, a course of the modern philosophical sciences should be compulsory on the so-called Arts students. Some years ago, a judicious change from text-book to syllabus was also made, with the idea that the students would learn the subject independently from the various authorities instead of cramming the text-book. But partly from defects in the syllabus, which is at once shallow, incomplete, redundant and vague, and bears every mark of having been drawn up in haste (and repented of at leisure), and partly also from the nature of the earlier Examination papers on the syllabus system, which proceeded on the curious supposition that the questions should be confined to the merest elements, the common ground of all the text books on the subject,—the change from text-book to syllabus has in effect encouraged greater cram and superficiality, greater reliance on mere notes and epitomes, than ever before. The remedy indicated is, not to revert to the text book, but to improve the syllabus and to demand in the Examination papers such a knowledge of the subject within the limits of the syllabus as will ensure the student's personal, independent and thorough study of the different schools or systems. To this must be added a

fundamental reform of the method of teaching in vogue in our colleges. No book should be read and paraphrased in the class; lectures must be delivered on the syllabus or the subject. The students must be referred to the various authorities which they must independently study in the college library or reading-room, and the College Professors will offer them tutorial help, guide their studies, and correct their exercises.

I now proceed to make certain suggestions regarding the curriculum in philosophical subjects for the different Examinations.

For the F. A. Standard, both logic and psychology should be compulsory. Logic is the grammar of thinking, and like grammar and Euclid, it should have a necessary place in every scheme of liberal education. It is an even more valuable discipline than Euclidean Geometry for precision and clearness of thought. I should also add the elements of psychology as a Natural Science. Its phenomena are the most accessible, and most universal,—we can in no wise escape from them. The jurist, the lawyer, the statesman, the journalist, the schoolmaster, the clergyman, would all be the better men in the practice of their profession for some knowledge of the human mind and its development, its phenomena and its laws. Elementary psychology is therefore an elementary liberal study. As the professional students (excepting those of law) do not go up for the B. A. Standard, some amount of psychology should be insisted upon at the intermediate (or F. A.) stage. Besides, this would be a preparation for more advanced studies in the B. A. Classes.

B. A. curriculum. For the B. A. Examination, A Course, I have nothing to add except that Psychology should here be studied in connection with Physiology.—at least Psych-Physiology should be added. The old rational Psychology, properly speaking, falls under Philosophy, which comes in at the M. A. stage. Again, Inductive Logic should be studied, not in dead formulae, but in the actual processes, experiments and hypotheses of the sciences, physical as well as mental. The teaching and the Examination, instead of being confined to mere forms and schemes, should specially encourage concrete illustrations and scientific applications.

For the honour classes, I should add Experimental Psychology. Since the days of Fechner, Weber and Wundt, Experimental Psychology has had an immense development in Germany, and at the present day, their disciples as well as those of Munsterberg are carrying on researches at Harvard, Tokio, and even Cambridge. The apparatus would not be costly. £100 would suffice for a good beginning.

The M. A. standard is satisfactory, but the Examination papers encourage superficiality and smatter, and there is no hope of improvement until their standard is brought up to date, instead of lagging half a century behind the march of philosophical thought and science in the civilised world. I would only add Hypnotism, Mental Pathology and Child Psychology together with advanced work in Experimental Psychology, to the Psychology group. I would also demand a special study of the philosophical systems of a particular epoch or school. Spinoza's Ethics and Hegel's Logic should be compulsory along with Kant's Critiques, and Aristotle's Organon.

A paper on Comparative philosophy (European and Indian) is a grave desideratum.

For the B. Sc. and M. Sc. courses, and the M. A. standard in Science, I have suggested the Philosophy of science (as in the writings of Huxley, Helmholtz and Darwin); for the M. A. History standard, the philosophy of History as in Comte, Vico, or in Flint's Hand-book; for the M. A. English Course, the Philosophy of Art (as in

Michelet), and for the B. L. standard, the Philosophy of Law (as in Kant or Puffendorf.)

**Mathematics.**—I would deprecate the tendency to separate Pure Mathematics from Mixed Mathematics, at least in the earlier part of the University Course. There is no use of learning the Differential and the Integral Calculus in the Pass course, if you do not go in for their applications to mathematical physics, or in the determination of mechanical problems. Without such fruitful application, the processes of Transcendental Analysis and its symbols would be meaningless and would also be speedily forgotten, and the time spent on these studies would be better devoted to working problems in Statics, Dynamics, Hydrostatics and Astronomy. The latter should be compulsory on all graduates who take up Science and Mathematics. For the M. A. Examination, the Mixed Mathematics Course is shorter than the Pure Mathematics one; it should be extended by the inclusion of Differential Equations and of the mathematical theory of Heat, Electricity and Magnetism. So long as this is not done, I do not see any reason for splitting up the Mathematics Course. Bifurcation in the higher examinations, without corresponding specialisation of studies, is a capital blunder.

**History.**—The perfunctory teaching of History is a sad blot on our University scutcheon. The F. A. History Course is a standing reproach, and, under the new arrangement, Roman and Greek History will be a sealed page to a large proportion of our graduates. Again, with the exception of a very small percentage, our graduates know nothing of English and Indian History beyond the dry epitomes they gorged down for matriculation. This is very good, seeing that a historical taste and a historical sense and criticism are characteristic wants of the Indian mind.

Besides, Indian History, as it is ordinarily written, has little or no educational value. What we primarily want is the history of Hindu and of Mohammedan civilisation. The history of Greece and of Rome are an epitome of all political, all civil, all artistic history, and are in themselves a school of liberal education. Besides, if History means the story of civilisation, Greek and Roman History mean this in a special sense. There are only three ways of studying History profitably (1) in comprehensive Histories, surveying the march of civilisation, or of particular movements of thought or art (2) in masterpieces of historic composition like those of Gibbon, Grote or Mommsen, which have an epic grandeur, and are gorgeous with the fate of Empires and Nationalities, or (3) in memoirs, diaries and records, which clothe historic figures (and scenes) with flesh and blood, and give to historic studies something of the passion, the breathless interest, and the local colour of Romance. In accordance with this view of the matter, I have already suggested a scheme of historic studies under the F. A. and the B. A. curriculum (both Pass and Honour). As for the M. A. course, Politics, Sociology and Jurisprudence must have a genuine recognition. The Philosophy of History (as in Comte's Social Dynamics or Vico, or in Flint) should be added.

**Geography.**—To raise Geography to the rank of a Facultative study, we must follow in the footsteps of the Germans and the Swedes. From the days of Humboldt's Kosmos to those of the records of Naturalists' voyages in Darwin and Wallace, Geography has sent out feelers to establish lines of communication with almost all the natural Sciences. Hence methods of geographical research and exploration, implying as they do a practical knowledge of geology, natural History, meteorology, Chemistry, astronomy, Political History, economic products, commerce, and cartography, must be confined to post-graduate classes. An Indian School of geographical research may

achieve memorable results in Central Asia and Thibet, if not also in Central-Africa.

**Spheres of Influence.** I do not think that in the present nascent stage of University Institutions in India, any local limit should be placed on the right to affiliate Colleges. I am aware that highly organised institutions like the London University and the French Academies have statutory limits, but we in India must yet uphold the policy of the open door in the matter of higher education. Indeed I am for more widely diffusing the influence of our Indian Universities by creating and encouraging a movement of University Extension. Here we need not begin with a working-men's Institute, as in London and New York, or look mainly to the industrial and commercial classes as in the north of England, for our sphere of work. We may address ourselves to the floating population of half-educated people in the great cities, and filtrate down from the middle classes whose members have already received some sort of secondary education to the industrial and commercial circles, and ultimately even to working-men. Already, in Calcutta, we have the Science Association which has been doing some useful work in this direction. As this institution is already affiliated to the University, it is in all essentials a movement of University Extension. Lectures and practical classes have been organised, and it would be only necessary to add a well-planned system of Examination in the courses delivered at the Institution. The Victoria College for ladies, under the auspices of the New Dispensation Samaj, promises in future to carry home the movement of University Extension, on a small scale, to the large class of ladies who have already received some education. But this is more of the nature of a German Continuation school (*Fortbildungsschule*) for girls than of University Extension classes, though, as is well known, even in London, such classes are more numerous and diligently attended by ladies than by young men. The use of the vernacular does in no way militate against the principles of a University Extension movement. The Calcutta University could do more work in this direction by organising courses of evening lectures and classes, and ultimately examinations, in co-operation with the University Institute, the Chaitanya Library, and above all, the two academies of Bengali language and literature, now flourishing in the metropolis. It is only thus that the University by placing itself in rapport with the old indigenous learning as well as with the modern Renaissance and the enlightenment and upheaval of the masses, can take root in the country as an abiding and beneficent national Institution.

**Constitution**—Senate, Syndicate, Faculties and Boards of studies.

I have no practical knowledge of the inner working of these bodies, but as an outsider more vitally interested in their work than many an 'insider', I can only say that judging by results the constitution and even more the composition of these bodies require some drastic reforms. I find that, in 1901, the Senate consisted of 181 Fellows, of whom 54 had no University or other Educational degrees, including 5 ex-officio members, and 23 persons of more or less recognised learning. Of the 127 men with educational degrees (including Pandits and Moulvis), about 40 were Professors (other than those of Law) connected with the working of the Colleges. The Faculty of Arts consisted of 149 members, of whom 36 (including some persons of more or less recognised learning) had no educational degrees, and only 40 were connected with the affiliated Colleges. On the Syndicate, there has been little effective representation of the College Professoriate.

As the same time, I do not believe that a stronger contingent of our College Professors in the Senate or the Syndicate would have effected any

considerable advance on the present situation. I am sorry to say it, but our educational ideas are too low and reactionary. We are in the back-waters, and the ocean currents and tides of the great academic world of the west have rarely been felt in these sluggish lagoons. A minister of education familiar with the ideals and types, the methods and movements, of modern European Universities, and working with a Council of Instruction, as in Germany and France, would, for some time to come, be the beau-ideal of University management in India. A man of ideas can do more in a single year than ten routinists and formulists can undo in a quarter of a century. Dr. Pedler, if I may be pardoned for saying it in his presence, has done more, in a few brief years, to place primary and secondary education in Bengal on a sound modern basis than all his predecessors put together.

Such is the composition of the Senate, the Syndicate, and the Faculty of Arts; and the result has been a strong and continuous pressure to lower academic standards and courses. The English Standards for the Entrance, the F. A., and the B. A. Examinations have been shamefully reduced. History, and Sanskrit in the F. A. Examination have fared no better. Indeed the F. A. Examination has been a favourite field for the hobby-hunter; there is everybody's hobby and nobody's hobby, a modicum of every thing, and no value placed on any. The bifurcation into the A. Course and the B. Course was made the occasion, not for specialising important studies, but for lowering the B. A. Standard. Since the bifurcation, the courses in Philosophy, English, Sanskrit and History have been more or less curtailed. A hundred precautions are taken that the Examinations may not prove stumbling blocks and cut the tender shins of the gilded youth of our colleges. A system of grace marks, in effect, if not in intention, guarantees a certain percentage of success. Steady and consistent in depreciating and corrupting the University currency, our Senators are inconsistent in every thing else. Herakleitus, if he lived in our days, might have the proceedings of the academy of Calcutta in his mind, when he delivered his oracular enigma—All things flow. Newton's third law that to every action there is an equal and contrary reaction—has received a peculiar significance in our academic history. Settled policy, plan or system there is none. Sir Charles Eliott marked the swing of the University pendulum. The pendulum is swinging still. With an inexorable necessity, with the rigid impartiality of Fate, and the blind aimlessness of Fortune, the University wheel drags down to-morrow whatever is established in high place to-day. Physics in the Entrance, Astronomy in the B. A., and Chemistry in the F. A. Examination have had a diversified and chequered history. From text-book to Syllabus, and from Syllabus to text-book, we move forward and backward, following the sun in his annual course.

But so long as low educational ideals prevail in the Senate and the Faculty of Arts, and certain colleges and college Professors combine with a half-educated public to frustrate every attempt to move forward with the age, as the attempt to bifurcate secondary studies into a literary and a modern side was frustrated, there is little hope of any real good being done by constitutional tinkering and paper legislation.

My suggestions as to constitutional Reform are these:—A *Senatus Academicus* consisting of the Principal of the University (if it is to be a teaching University), the University Professors, and the recognised teachers, and divided into the Faculties of letters, the Mathematico-physical Sciences, the philosophico-historical Sciences, Law, Medicine and Engineering (including Technology and Agriculture);—a House of Convocation composed of all graduates on the University Register; and a governing body or University Council corres-

ponding to the present Syndicate, and consisting of the Director of Public Instruction as ex-officio member, certain bona-fide educational experts nominated by the Government, elected representatives of the different Faculties of the Senatus Academicus, and of the House of Convocation (constituting not less than a half and a fourth part of the Council respectively). The Syndicate or University Council should in my opinion contain not more than twenty members. No separate Boards of studies should be needed under this scheme. The University Council, if so constituted, should have a statutory status, but this is not at all desirable under existing conditions.

**Affiliated Colleges**—the condition of private colleges in Bengal.—The rules regarding affiliation should be worked with greater vigour and strictness. Besides making sure of the competence of the Professorial staff, the stability of the Institution, the adequacy of building and other accommodation, and the absence of unhealthy rivalry or competition, the University should satisfy itself as to the following other points: (1) the sanitary and moral surroundings of a college (2) the provision of a Gymnasium or a field for sports (3) the provision of boarding-houses for the students, or of regular control and supervision over the students' lodgings (4) the equipment of a Reading Room, and the formation of a Students' Association (5) a sufficiently equipped library (6) a sufficiently equipped laboratory for the practical training of the students for the Examinations in science, and (7) a respectable scale of salary for the Professorial staff as a guarantee of competence and careful work, and a remedy against too frequent changes in the staff.

Government Colleges for the most part conform to these requirements except perhaps the last. Non-Government Colleges belong to one or other of the following classes (1) those maintained by a Native State, as the Maharajah of Jeypore's College, the Cooch Behar Victoria College &c. (2) those respectably endowed, like the Nagpur Morris College and the Berhampore College (3) Missionary Colleges which depend on mission funds, and partly on Government grants-in-aid, but are not sensibly affected by a falling-off in the income from fees (4) Colleges maintained by the liberality of Zemindars or other rich people, and mainly depending on their benevolent grants, *e.g.* the Burdwan College the Bhagalpore Tejnarain College, the Mozufferpore College &c; (5) colleges partly supported by public-spirited persons, but depending in large part also on fees, *e.g.* the Barisal Colleges, and (6) Colleges on what may be termed a commercial basis, of which some are purely proprietary and without a constitution, and others have a sort of nebulous constitution.

Of these I have, considerable personal experience of the first and the second group, and I

have found them in no respect inferior to Government Colleges of the same standing. The Berhampore College and the Nagpore Morris College, in my time, were, I think, better equipped in some respects than the Rajshaye or the Krishnagar College. The Professors were on the whole better paid, and larger grants were made for the library and the laboratory. The entire absence of rivalry or competition is very favourable to the cause of discipline. The promotions in the school classes are as strict as in Government institutions, and uninfluenced by favouritism. The college certificates to candidates for the University Examinations are given more judiciously and discriminatingly than elsewhere. Regularity of attendance is strictly enforced, and the students work much harder, and are exposed to far less distractions and temptations than in the metropolis. Our classes being smaller, we are enabled to pay greater attention to individual students. The percentage of success at the University Examinations is comparatively high. The boarding-houses are in most cases commodious and well-equipped, and are liberally subsidised. The only drawbacks are:—

(1) The students depend too much on their teachers. Independent study is almost unknown. This is a vice of our college teaching all over the country, but it is more pronounced in mofussil colleges than in the metropolis.

(2) The local public opinion is far more backward than in the metropolis. The authorities should have the strong support of the University as well as the Education Department in the maintenance of discipline, and in matters of educational policy.

(3) The University should insist on a proper annual expenditure on the laboratory and the library.

I have little personal experience of private proprietary Colleges, but I believe that, in several cases, neither the relations of the Professorial Staff to the proprietor, nor those of the students to their Professors, are on a satisfactory basis. I believe the libraries and laboratories are not in all cases properly equipped. I do not think that the chances are very favourable to discipline in a college on a commercial basis. Though cheap colleges are a prime necessity in India, I would have them founded and properly endowed by public or private benevolence. In my opinion, no private proprietary college on a commercial basis (depending solely on the income from fees) should in future be granted the privileges of affiliation. As for the colleges of this class already affiliated, I would make it compulsory on the proprietor (1) to set apart a certain proportion of income annually for the creation of a college fund (2) to provide annually a certain minimum grant for the library and the laboratory and (3) to make over the management of the college to a body of duly constituted trustees.

BRAJENDRANATH SEAL,

PRINCIPAL, VICTORIA COLLEGE, COOCH BEHAR.



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## DR. E. D. ROSS, PRINCIPAL, CALCUTTA MADRASSA.

*Teaching University.*

Dr. Ross, Principal of the Calcutta Madrasa, said :—The Calcutta University might be turned into a *teaching* University, by the same means as have recently been adopted in London : or by as close an imitation of those means as possible. That is, by the affiliation of the principal schools and colleges, and by the recognition of a selected number of the teachers of these institutions as Professors of the University. Of the merits of this scheme so far as teaching is concerned it is too early to judge ; but it immediately brought about one excellent result in the shape of a managing body which left little to be desired. From among the recognised Professors the Commissioners further selected the members of the various Faculties, and the Faculties in their turn constituted, by election from their own midst, Boards of Studies. Certainly in London it would have been impossible to find more fitting persons to control the curricula of study than the members of these Boards. Would it not be possible for the Syndicate of the Calcutta University to adopt the methods employed by the Commissions of the New University of London ?

It was the practice in London to invite certain persons with special qualifications such as Professors from Oxford and Cambridge, to serve as these Boards of Studies. Of course all resolutions passed by the Boards of Studies were laid before the Faculty to which the Board belonged, and at times before a Joint-Faculty meeting, and having passed the Faculty were sent to the Senate for sanction.

*The Senate.*

The most obvious defect in our Indian Universities is the overcrowding of the Senates and the inefficiency of many of their members. The simplest remedy—though doubtless a drastic one, that would lead to much heart-burning—would be that Fellowships should cease to carry with them membership of the Senate. If this were adopted, the honour and compliment of a Fellowship could be conferred with less apprehension than it at present involves. Election to the Senate would be independent of Fellowship : the numbers should be restricted, and the Faculties, as reconstituted, should be well represented.

I think it is to be regretted that teachers should be excluded from setting examination papers. Perhaps, in India, one has to take into consideration an occasional absence of probity : still it is held by many that the best examiner of a pupil is his teacher. It is indeed the common practice in German Universities in the case of a degree for the student to be examined by his Professor.

*Study of English.*

I am not in favour of raising the percentage of pass marks in the English Entrance Examination. At that stage English is still very foreign to the native : and he needs encouragement rather than discouragement.

English is however the most important study in the University, and it is in the teaching of English that most defects have been noticed.

We at present make the student study English as if he were an English boy, and long before he has mastered the ordinary colloquial language he is set down to study the classics. In the first instance he needs English above all for practical purposes : reading the classics helps him, but little to understand the lectures he attends. He does not need the abstruse niceties of meaning of words in a particular passage, but an accurate knowledge of the ordinary meaning of all words in common use. It would be well if all *books with notes* were excluded from the Entrance and F.A. Examinations.

I would suggest that for the Entrance Examination, in the place of a book of selections—mostly very dull reading—he should be given an interesting *historical novel*—preferably of the kind written for boys : written in plain every day English. It is fairly certain that however devoid of style such a novel might be, it would at least be free from archaisms and mis-used phrases. Such are to be met with so frequently in the text-books compiled by natives of India. I maintain that a novel by G. A. Hentz or W. H. Kingston or any



other well-known writer of books for boys, would not merely be instructive but would encourage the students to read other books of a like nature.

### *Hostel.*

I would strongly advocate the Hostel or Seminary system. It is important almost essential, that pupils should be separated from their parents during their school and college days: and as far as possible students should be encouraged to live where they study, and thus be brought in contact with their teachers and with each other outside the class room. Such a system would present nothing novel to the Indian mind. It is strictly in accordance with the traditions of both Moslems and Hindus. Residence was, in fact, an essential part of the education of both. In the codes of Manu we find that the student is to live with his tutor or guru till his education is completed. All the famous Moham-medan Universities from Cordiva to Samarkand were filled with resident students, and the endowment of a University always included the board and maintenance of the seekers after knowledge.

There are a few Hostels in Calcutta, and provided proper supervision could be guaranteed, they might, with advantage, be greatly multiplied. It is however most important that the inmates of a hostel should all be students of one and the same school or college.

It is to be hoped that those in authority will soon take in hand the question of providing play-grounds for all students of affiliated colleges. There is no more grateful task for the Englishman in India, than that of encouraging games and sports among the natives: and most of them need physical development even more than mental.

### *Alternative course for Mohammedans.*

Finally I wish to propose an alternative *B* course for the F.A. Examination; and an alternative *C* course for the B.A. to the end that, while demanding an intellectual test on a level with the hitherto recognised courses, we may encourage a taste for learning and true scholarship among the Mohammedans. The aim of the University being, I presume, not necessarily to produce natives who have taken English degrees, but cultivated and loyal Indians with a sound knowledge of English. For the alternative (*B* course) of the F.A., I venture to propose the following subjects:—

1. English.
2. Chemistry and Physics.
3. Second language—Arabic.
4. History of Islam—from English and native sources.
5. Akhlák Nasiri—portions only on Ethics.

For the B.A. (*C* course).

1. English.
2. Arabic and Persian—including history and literature; philosophy, rhetoric and prosody in these languages. In fact the equipment of an European student of "Islam."



REV. FATHER A. NEUT, S. J., PROFESSOR, ST. XAVIER'S COLLEGE.

*Teaching Universities.*

My remarks will bear chiefly on two points, Teaching Universities and Matriculation. If the establishment of a Teaching University could place a check on the ever-increasing number of students trying to secure some kind of certificate or diploma of the University, it would be an unmixed blessing. My opinion is that it would eliminate the large class of candidates who do not care for knowledge, but care only for that piece of paper which has acquired in India a market value never dreamt of by the founders of the Universities. It introduces to a situation or to a wife; hence students want it; they would be ready, if it were for sale, to buy it without attending a single lecture or opening a single book. I do not, evidently, mean to imply that the natives of India are not capable of profiting by a University course. If such were my opinion, I should have to explain the presence of several gentlemen here, and the existence of so many other native gentlemen who have distinguished themselves in every branch of knowledge and in every career. But such distinguished natives would become all the more numerous that the Universities would be more severe in their tests, and would be less hampered by the crowds that do not care for real knowledge. However, whether the establishment of a Teaching University alone would bring on this result, I greatly doubt. What might do more towards it would be to arrange that University certificates should be no longer exacted to the extent to which they are actually required for every possible opening. As long as the present state of affairs exists, there will exist, on the part of everybody, and, consequently, on the part of a large number of unprepared or even unfit candidates, the same anxiety to get hold somehow of a kind of certificate, or, failing that, at least of the Registrar's receipt certifying that such a one has deposited his fee and will be, therefore, allowed to appear at the examination; for the latter document has come to be valued and treasured as a kind of honourable title. Under the present circumstances also, any attempt to raise the standard, even on paper, will be opposed (we have heard it at the last Senate meeting) as a hardship, as almost a cruelty. With regard to a Teaching University, I should like to call the attention of the Universities' Commission to a scheme published in 1887, I believe, by Messrs. Eliot and Pedler. In their joint *Note on the Establishment of a Teaching University in Calcutta*, I think there is much that deserves consideration even now, much that would form a sound basis on which to start such a University. I do not know how far the following scheme could be worked into that of these two gentlemen, but I give it as the result of thought and experience. I would add to the present course of studies in high schools, especially if that course could be framed much more after that prescribed for European high schools, two years at least during which the greater portion of the present F.A. course would be taken, *e.g.*, English, Second Language, Mathematics, and Science; to which I would even add something of the B. A. course in English. At the end of these years would come a Matriculation examination for those who wish to enter the Universities, which could be also a final examination for the others. Of course, the present H. S. or an examination of equal value could remain to supply a leaving certificate to those who cannot go higher. After the Matriculation, would begin the course in a Teaching University for the B.A., B.Sc., M.A., and higher degrees. At that period I would suggest specialization, pure and simple, I mean that candidates would be allowed to take their B.A. degree in English Language and Literature, or in Mathematics, or in Classics, or in Natural Science, etc. For a course so arranged, I do not think there would be any unsurmountable difficulty to establish a Teaching University, and we should then come nearer the real idea of a University course as understood in England and on the Continent.

*Age Limit.*

The age at which students would begin their University career would be, I calculate, about 19; and up to that age they would be submitted to school

discipline to their great advantage, without, however, taking more years to obtain a degree. This would save from utter ruin a large number of students who now, at the age of 16 or even earlier, find themselves as undergraduates in a college where they have but to attend lectures, and where they must be necessarily left very much to themselves.

*Matriculation and the European Code.*

“ Heads of Information ” on which opinions were asked have been sent to the colleges. I should like to speak of the fourth head or Matriculation. I have taken the liberty of sending in a scheme of an examination, a portion of which would serve as a kind of test, as suggested in the document I refer to, for candidates who wish to take up the University course, while the whole of my scheme would be a final examination giving a ‘ leaving certificate.’ To this scheme I ought to have added such Oriental languages as Sanskrit and other which may be considered as Classical. I have heard since that the revised European Code, as recommended by the Commission which has just finished its work, will afford a final examination more or less on the lines I suggested; and if this information be correct, I should prefer to wait before urging the consideration of my scheme. I know that it has been stated before this Commission that there exists a very widespread feeling of discontent and dissatisfaction with the European Code examinations. Although I try to keep well informed about matters connected with education, I am not aware of the existence of such a dissatisfaction; and I think I am justified in repeating here what I said in a pamphlet (which I beg to place before this Commission), that this dissatisfaction is non-existing in Catholic schools which represent more than 54 per cent. of the whole of Bengal, as I took the trouble to ascertain about two years ago; that it has not been shown to exist in the two Government schools, in the twelve Railway schools, in the Jewish, Armenian, or private schools; and that it may be assumed to be non-existing in about 70 per cent. of the schools. I may perhaps add that this feeling has not been proved to exist in the girls’ schools under the Church of England, or in the Undenominational schools, with the exception of one. I can quite well understand that dissatisfaction exists in such schools as never succeeded at the H. S. examination. Two days ago I read that in the report of the Principal of the Doveton College, Madras, there was a strong complaint about the fickleness, so to speak, of the leaders of the communities in whose interests the Doveton is specially maintained. At one time there is a cry (it is said there) for more or new schools; “at another time the existing examinations come in for violent criticism, and it is seriously proposed to substitute less exacting English examination.” This is just what has happened here: violent, ungrounded and incorrect criticism we have heard from men who have not been proved to represent even one-third of the domiciled community; and the proposal of *less exacting English examinations* has not only been made but has gained its way into one or two schools. My firm conviction is that, as soon as the Cambridge Locals do not yield the success which is expected, fault will be found with them, and we shall once more be before “a widespread feeling of discontent and dissatisfaction.” I do not mean to imply that the Cambridge Locals cannot be made as extensive as our examinations; but I maintain that an examination which makes it possible to gain a certificate (although it bears an English University name) without any English test and simply with Arithmetic, religious knowledge, French and Drawing or Music, does not stand the comparison with another examination which requires a separate pass in English Composition, in English Grammar, in English text-books, in Arithmetic and in at least three optional subjects; nor can such an examination be considered as the equivalent of the F. A. examination at our University. That this is no mere assertion on my part can be seen from the appendix of the pamphlet mentioned above, where I have given a comparative statement of the Cambridge Local and Indian Code examinations. When, however, the complaint is uttered that the present Code examinations do not obtain sufficient recognition, I fully endorse the complaint. I have done more than complain; I have addressed officially our Education Department and given the different cases in which such recognition should be granted; and I am patiently waiting for the result of my appeal

which was dated the 5th June 1900, and which I learned from the office of the Inspector was endorsed and sent on the 16th June 1900, and the subject-matter of "my letter was again referred to and its recommendations supported in another letter No. 45-0, dated 24th April 1901, from this office."

*Other Points: 1. The Senate.*

I finish with three brief remarks on three other points. I strongly advocate nomination of Fellows by the Governor General in Council as the only method, evidently expecting the Government to exist all temptation to pay a compliment by appointing a Fellow, as also to give the preference to men actually engaged in education. The present number of Fellows would soon be reduced if, by absence for a certain period, the present Fellows were to lose their seats, unless they take the trouble to report their absence to the Registrar.

*2. Boards of Studies and Text-Books.*

I am afraid the Boards after comprise Members that have not the slightest qualification for the branch with which they have to deal. With regard to the special business of appointing text-book, I think some rule should be strictly enforced to the effect that notice of new books to be proposed should be given before the meeting, and even that these books should be circulated if they are new books in the market. Appointing text-books may be good or bad for Physics, Chemistry and other branches, I am not prepared to say; but with regard to Mental and Moral Science, I take the liberty of strongly emphasizing all that Mr. Stephen so well said on the subject when he gave his evidence. It seems to me most evident that with one appointed text-book a syllabus becomes practically a farce, and that, practically also, professors, students, and examiners will confine themselves to the opinions and the arguments of the text-book, notwithstanding the theoretical precaution of a note saying that the questions will have no special reference to the writings of any one author.





सत्यमेव जयते

I. I do not think that it would be expedient for the University to attempt to teach its students directly except in certain special subjects. It would, under existing circumstances, fulfil the functions of a teaching body best by devising some means of assisting and guiding the College tutors in their work, and of stimulating them to more thorough and earnest study. A very necessary step towards the attainment of this end would be the establishment of a good University library and University laboratories managed by a really first-rate staff of librarians and demonstrators. Such institutions would be teaching influences of immense value, and would be most eagerly welcomed by the large number of Indian graduates who are prevented from carrying on their studies only by want of means.

The special subjects in which it seems to me the University might well appoint professors of its own are those which form only small portions of certain courses of study, but need nevertheless to be handled by specialists. I would instance Comparative Philology as an example.

II. As regards the fostering of a genuine University life in Calcutta, I do not think that this can be done by any system. It must spring from personal influences, and will only be accomplished when the teachers in our Colleges come to realise that their responsibilities do not begin and end in the class-room. The Government could do something to bring about this end if it would urge upon its education officers the necessity of setting an example in this respect. Before we can reach a genuine University life we must begin with the individual College and vitalise that into something more than a mere collection of class-rooms. If our leading College would set an example, it is not impossible that others might follow according to their ability. The plan of each College having hostels under its own control would do more perhaps than anything else to bring students and tutors into closer relations with each other, if it were entered into with energy by the tutors. I do not see what there is to render the plan impracticable, and I consider it feasible even in the case of the private Colleges. But we need also more intercourse between College and College. The students of the different Colleges do come together to some extent, but there is an almost entire lack of intercourse between their teachers. Until something can be done to remedy this defect we can hardly hope to obtain that community of thought and work which the term University implies. The establishment of an University library and laboratories would be of some service as a remedy, but still more could be done by personal effort on the part of the European professors of the Presidency College and the Missionary Colleges who come to us bringing with them nobler traditions of University and College life than India yet possesses. There are other agencies which may help in a subordinate degree towards the fostering of an University life. If the Calcutta University Institute could be invigorated and developed into some resemblance to its prototypes in the English Universities it might do a great deal. The formation of College Athletic Clubs, and of an University Athletic Club, would also be of much value, but most Colleges—mine for instance—labour under the disability of not being able to procure grounds for exercise, while the acquisition of a ground for an University Club seems hopeless.

III. I do not see what useful purpose would be served by the forming of a list of "recognised teachers," and by insisting that candidates for degrees should receive instruction only from such. The rule would have no real application to Government and Missionary Colleges, for the University could hardly refuse to 'recognise' the teachers whom these Colleges import from Europe, and it would be unnecessary and even mischievous so far as private Colleges are concerned: unnecessary, for self-interest already demands that the best available teachers shall be procured; mischievous, inasmuch as it would bring in upon us the evils of patronage. I do not see why the Principals of Colleges should not be allowed absolute discretion in the appointment of teachers. If the University wishes to keep up a high standard of efficiency in its Colleges let it declare that it will disaffiliate any College that shows consistently bad results over a certain number of years, unless it can be shown that these results were the effects of other causes than inefficiency in the staff and slackness of discipline.

IV. With regard to the constitution of the University :

(1) I am of opinion that the Syndicate should be placed on a statutory basis, and that, without increasing the number of members, it should contain a certain number of *ex-officio* members, as, for instance, the Director of Public Instruction, the

Principals of the Medical College and the Civil Engineering College, the President of the Faculty of Law, and the Principal of the Presidency College if he can be relieved of the office of Registrar. That, further, it should have at least one representative of the Missionary Colleges, at least one representative of the private Colleges, and one member nominated by the Principals of the Mofussil Colleges: and that the professional faculties should not have more than one representative each. At present the Colleges are not adequately represented. With regard to the claims of the private Colleges I would beg leave to point out that they educate more than half the total number of candidates taught in the F.A. and B.A. classes of Calcutta Colleges.

(2) I consider it an admirable suggestion that Faculties should be strengthened by the addition of teachers and scholars of repute who need not necessarily be Fellows.

(3) It may be doubted whether "the general body of graduates" is as yet ripe for the privilege of the franchise, but I do not think that election of Fellows by Faculties would prove more satisfactory than election by the graduates generally.

(4) It would seem advisable to make fellowships terminable on non-attendance for a certain period, and to arrange that the majority of Fellows shall be men either actually engaged in educational work, or possessed of considerable experience in the working of Indian and Foreign Universities. The Principals of first-grade Colleges should be *ex-officio* Fellows. The Government should be strongly represented, considering the great public interests that are at stake, but the University should be allowed to develop an independent life. It will be impossible for us Indian graduates to venerate our University unless we feel that it has a life of its own outside the sphere of political and racial antagonisms, and that, so long as it does not reach a pitch of inefficiency which makes it the duty of the State to interfere, it will be allowed to develop its own life on its own lines. In no other way can we be made to feel that it is ours and that we have a living interest in its welfare.

V. The statement that "many students begin their university course without sufficient knowledge of English to profit by the lectures they attend" is undoubtedly true, and it may be added that having once so begun it is immensely difficult for them, under ordinary circumstances, to remedy the defect. There are still more who are quite capable of following lectures with profit and of intelligently studying the subjects prescribed, but who are quite unable to express themselves in English. A remedy can be supplied only by revolutionising the methods of instruction followed in our schools, but this, I observe, does not fall within the scope of the enquiry conducted by this Commission. I should, nevertheless, like to express my opinion that no reformation can be effectively worked in our university system until the education given in our schools is put on a sounder basis. The University might, however, to some extent, stimulate the schools by remodelling its Entrance examination. This examination is at present made to serve a double purpose. It is intended to be at once a final school examination and a preliminary University examination. I do not think that one and the same examination should be made to serve both purposes, especially in view of the fact that of the three thousand candidates, or thereabouts, who annually pass the entrance examination, about one thousand proceed no further. But whatever view be taken on this question, there can be no doubt that the Entrance examination in English should be conducted on very different lines to those which prevail at present. It would perhaps be best to appoint no text-book, to lay but little stress on knowledge of grammatical technicalities, and to conduct the examination solely with the view of ascertaining the candidate's ability to write and understand simple every-day English. A candidate who failed to satisfy the examiners in English composition should not on any account be allowed to pass into the College classes. It may be said that a text-book is necessary if only to lay down a standard. I do not agree with this view. It would, to my mind, be far better if the University were to compile a small volume of selections to be put into the hands of teachers with the intimation that their pupils would be expected to show their ability to understand and to write English of the style and character exemplified in the volume.

I am strongly in favour of a minimum age limit of fifteen or even sixteen years being fixed for candidates for matriculation. The number of candidates under these ages is probably not very great, but the absence of a regulation such as that proposed causes the education in our schools to be hurried through at a speed and pressure which must be injurious to the vast majority of pupils.

The F.A. examination in English is a simply enormous advance on the present Entrance examination. If a student has come up to College having just barely succeeded in satisfying the examiners at the Entrance examination, he is from the outset doomed either to undergo two years' rigorous cramming, or to resign himself to inevitable failure, and often to both. I do not, however, wish to be understood as suggesting that the F.A. standard should be lowered. If the matriculation standard in English is raised, it will be possible to raise the standards of the other examinations all the way up. Wherever a student has an initial working knowledge of English, he has, I am convinced, the ability to stand a much severer test than the University at present imposes at the degree examination. The defect in our students

is not a lack of intellectual capacity, but merely a linguistic deficiency arising from faulty teaching in the schools, which is, in its turn, due to faulty systems of examination.

With regard to the M.A. examination in English I would suggest: (1) that the courses should be less miscellaneous; (2) that the regulation excluding from this examination candidates whose vernacular is English should be abolished. The regulation can do no conceivable good to any one, and presses very hard upon Eurasian and European students. It is not easy to understand why they should be discouraged from studying the literature which is part of their inheritance. This regulation is all the more curious in view of the fact that such candidates are permitted to obtain honours in English at the B.A. examination, and may also take it up as a subject at the P.R.S. examination.

With regard to the examinations in Latin it can only be said that the standard at the F.A. and B.A. examinations is absurdly low. It is possible for students to pass these examinations without being able to put three words of the language together. I have known a student pass the F.A. examination without being able to decline a single noun or conjugate a single verb, and I have also known students come up to the first year class with a fair elementary knowledge of Latin, and forget it all in preparing for the F.A. examination. This second illustration points to the curious fact that the standard required at the Entrance examination is much higher than that demanded at the F.A. A reference to the question papers for 1900, published in the Calendar for 1901, will make this abundantly clear.

With regard to the subject of Mental and Moral Science I am strongly of opinion that it should not be made compulsory on all students taking the A course for the B.A. examination. Comparatively few students have any real aptitude for the subject, and the work of both teacher and pupil degenerates into the merest drudgery. Its place might very well be taken by History. The study of English Literature, which figures so largely in our examinations, would seem to necessitate a study of English History.

I have a few general remarks to offer on the examinations:—

(1) The honour courses should be kept quite distinct from the pass courses, or else abolished altogether. If they are retained, honour students should be allowed to specialise their studies to a much greater extent than is permitted at present, and the courses should be made much fuller. The present practise of teaching pass and honour students together is most injurious to the interests of the latter.

(2) The time allowed for teaching the B.A. course is in my opinion somewhat too short. Speaking for myself, I have never yet found it possible to go over the entire philosophy course with equal completeness in all parts. It might be a good thing if the F.A. examination were simplified and put earlier, so as to give the student at least two full years in which to prepare himself for the degree examination. This, however, can only be done when the question of school education is satisfactorily settled.

(3) The system of allotting grace-marks should be abolished by being rendered unnecessary. Its employment compels us to infer either that the question papers are badly set, or the answer papers badly examined, unless it be that both evils have conspired against the candidates. If the awarding of grace marks were a rare and occasional incident, we might suppose that their allotment was due to the accidental benevolence of particular syndicates or boards. But when they are awarded year after year in some subject or another with almost unfailing regularity we are forced to the conclusion that in the opinion of the University authorities we need more efficient paper-setters or more efficient examiners, and it seems reasonable to ask that this defect should be dealt with before and not after an examination.

4. The nature of the questions set at examinations must necessarily determine to a great extent the standard of teaching. With regard to this point I can only say that the questions set are not always such as to encourage teachers to put out their best efforts. An examination should indirectly test the teacher through his pupils, and this, I am afraid, is not always done. The teacher has, moreover, a right to expect that papers will be set for his pupils with a carefulness at least equal to that which he has expended in teaching them. This expectation is by no means always fulfilled.

5. The practice of assigning marks to each question is most objectionable in the degree examinations at any rate. It is possible for a candidate to show a real knowledge of his subject without answering many questions: it is equally possible for him to answer nine questions out of ten satisfactorily by the help of assiduous cramming, and yet betray abysmal ignorance in dealing with a tenth question for which he is not prepared. The present mechanical system of marking does not admit of such cases being treated according to their deserts. If it is found necessary to assign marks to each question in certain examinations, the marks thus assigned should not be published in the margin of each paper.

VI. The establishment of a school of Theology seems to me impracticable. If the object desired is the promotion of "the comparative study of religions," I would beg leave to point out that this is not, properly speaking, theology at all. A

comparative study of religions does not necessarily consider the truth or falsity of any system. Theological studies are, on the other hand, directed entirely by the desire to arrive at religious truth, and do not necessarily imply any comparative study of religions at all. If, therefore, we establish courses in theology, we should have to form as many schools as there are shades of religious belief in the country, a proceeding which might possibly be somewhat dangerous. With regard to the comparative study of religions I would deprecate any attempt to introduce it into the University. It would, for one thing, easily tend to grow polemical. Where it was not polemical, it would tend to harden the religious indifferentism which seems to be settling down upon our students. A merely intellectual study of religious systems would be fraught with great danger to all students who came to the study without the protection of settled religious convictions.





MOULVI SYED WAHED HOSSAIN, B.L., PLEADER, JUDGE'S  
COURT, ALIPORE.

*Teaching Universities.*—It is not very clear what is the exact significance of a Teaching University, and what will be its scope if the existing Universities are converted into teaching bodies. In the first place, it may be taken to mean an University which will have its own staff of professors and lecturers, its own college with a well-furnished laboratory, library, etc., and a boarding-house attached to it; in other words, something like the residential College of Oxford and Cambridge. In the second place, it may be taken to mean an University which will furnish licensed teachers and professors to the affiliated schools and colleges, but keep itself aloof from the practical work of teaching. Thirdly, it may mean an University which selects and prescribes text-books and syllabuses, and thus gives a certain shape to the mode of teaching and test it by periodical examinations.

2. If it signifies an University of the class mentioned first, I would welcome the change and say it is desirable that the present Universities should be converted into teaching bodies. Keeping up of a purely mechanical examining University is suicidal to the educational policy in India. As regards the second class, the change will be of doubtful expediency. Teaching, I think, will not be much improved by mere licensed teachers, and it can hardly be expected that it will produce such a result as is desired: *first*, it will not only be a difficult task to prepare a list of competent teachers, but I doubt whether the best scholars will stoop to registering their names as they do not take up teaching as a profession on account of the meagre prospects held out to them; *secondly*, it will lead to an encroachment upon the liberty and curtailment of choice of private schools and colleges; *thirdly*, it is doubtful whether the recognised teachers will accept the same pay as is generally offered in private colleges.

I have already said that mere furnishing licensed teachers and professors will not improve teaching as desired, unless improvements in other respects are effected, such as laboratories, good libraries, museums, raising the pay of teaching staff, etc. Such improvements, if insisted upon, means forcing the authorities of private colleges to do things which they are not in a position to undertake.

3. If the Universities be of the description coming under class III, then the existing Universities are a sort of teaching bodies inasmuch as they prescribe the courses of study, require certain attendance from students of the affiliated colleges in which they receive instructions. If they were to be what they are now, it is desirable that some stringency should be introduced into the rules for affiliation and larger and more adequate provision be made for good libraries, laboratories, etc. But it is highly desirable to have a centre of light and learning, and I would, therefore, advocate teaching Universities with residential colleges. Too much concentration should not be aimed at. Taking into consideration the condition of this country and the scattered nature of colleges, much centralisation of learning may lead to the detriment of mofussil colleges. Looking at the enormous and appalling numbers of graduates and undergraduates in this country, I am afraid whether it will not be quite unweildy if all teaching is confined to Presidency-towns. In order to avoid such congestion and to deal with teaching work efficiently, residential colleges under a teaching University may be established in different parts of the country, but teaching in higher branches of learning such as M.A., B.Sc., M.B., etc., as well as original researches in arts and science, may be concentrated in the Presidency-towns.

4. *Spheres of influence.*—Each University should have a sphere of influence of its own, and some sort of local limit should be placed upon its right to affiliate colleges. Its local limit narrower and educational scope wider is what is desirable. What I mean is this—students coming from other parts of India or from other countries should be allowed to study in any of its affiliated colleges and go in for its examinations; but the University should not make itself cumbrous and unweildy by affiliating colleges over which it cannot exercise its influence and supervision.

5. *The Senate*.—Reconstitution of the Senates appear to be necessary and very desirable. The present bodies are too large for the purpose of business and advice on questions relating to education. The number of the Fellows of the Calcutta University is smaller than that of Madras and Bombay; but it is too large and unwieldy, their respective numbers being 297 (Bombay), 200 (Madras) and 192 (Calcutta). Their numbers should be cut down and limited to 120. It is too true that Fellowships have been conferred merely by way of complement. In very many cases, I may say perhaps without fear of contradiction, the Fellowship has been very loosely given without any consideration of fitness, and not properly exercised by the recipient with adequate idea of responsibility. I know persons who are Fellows of the Calcutta University, but they do not know their duty nor understand their responsibilities. There are some Fellows whose best discharge of duties consists in their continuous absence; again there are some who come to vote for a particular question, because the clique to which they belong arranged with him to do so. I am afraid whether I shall not be charged with betraying a secret if I were to say that there are Fellows who have no knowledge of English whatever, and still they vote in one way or other without understanding the proceedings of the meeting of the Senate.

It is very desirable to give the Senate a more definite constitution by limiting the number, by prescribing the qualifications of persons to be appointed and by enforcing the rules of attendance. Complementary Fellowships should be discouraged. I would suggest that there be three classes of Fellows—

(1) Those who are directly connected with educational work; qualified persons from this class should be picked out and made Fellows. (2) Those who are not engaged with practical educational work, but take a lively interest in educational matters. (3) Experts and specialists in literature, arts and science; these two classes should be made Fellows. But those who are neither educationists nor renowned scholars nor take any interest in educational matters should not be nominated Fellows. Fellowships should not be conferred to oblige a person like Government titles and honours. The Senate should be the close preserve for those responsible persons who are true custodians of education. But the official element should not be allowed to preponderate, nor the number of *ex officio* members should be such as to give them a majority.

*Tenure of Fellowship*.—Tenure of Fellowship should be terminable. Keeping in view the fact that the number of Fellows would be limited, it becomes expedient that the term of Fellowship should expire after a specified period in order to make room for others, it may be for better persons. Expiry of Fellowship should be contingent on (1) the term of Fellowship, and (2) absence from consecutive meetings without satisfactory explanation. There should be provision for re-election and re-nomination of a Fellow after his expiry of term.

6. *Syndicate*.—The present constitution of the Syndicate does not appear to be satisfactory. It should be re-constituted on a broader basis. Under the bye-laws of the Senate five members should be elected by the Faculty of Arts and two by the Faculty of Law, but in fact it is generally found that the members of the Faculty of Law preponderate over those of the Faculty of Arts, *e.g.*, in 1899-1900 six gentlemen who have made Law their special subject of study were members of the Syndicate; in 1900-1901, seven such were members of the same. Thus the Faculty of Law is better represented, whereas other departments of study have a comparatively poor representation.

Moreover, while the Government is adequately represented in the Syndicate, colleges are very poorly represented, *e.g.*, in 1899-1900 seven Government officials were in the Syndicate and two members belonging to colleges.

In 1900-1901 six Government officials were in the Syndicate and two college representatives. Such a state of affairs is undesirable. There should be an equilibrium in representation. I should like to see that the colleges for whose interest and welfare the Senate and Syndicate exist are well represented. There is an anomaly in the constitution of the Syndicate which it is difficult to understand. When the text-books on the recommendation of the Board of

Studies come up before the Syndicate, the members select one out of the books recommended. Now some of these members may not have any knowledge of the subject or language of the book, and still they vote for or against it; but on what principle they do so is not clear. It is rather amusing to see a Moulvi voting for a Sanskrit book, and a Pundit voting for Arabic. This is a very unhappy state of affairs and should not be tolerated. A member of one Faculty should not, on principle, vote for or against the subject belonging to another Faculty if he has no knowledge of that subject. I would, therefore, suggest that number of Syndics should be increased and special committees be formed from amongst them for dealing with special subjects efficiently on a fixed and intelligent principle. In increasing their number experts and specialists should be added to the present strength of the Syndicate, preference being given to such persons who are conversant with more subjects than one, in order to avoid unnecessary swelling of the number. Moreover, I would strongly but respectfully recommend that two of the Syndics should at least be Mahomedans to look after Mahomedan education.

7. *Faculties and Boards of Studies.*—It is difficult to congratulate the Boards of Studies upon their selection of books. The way in which text-books are generally selected and recommended does not appear to be commendable. Influence and canvassing often outweigh the merits of a good book, and if a meritorious author has no friends and supporters in the Boards of Studies, his book is apt to be overlooked, whatever merits it might possess. The standard of test for selecting a book does not appear to be its merits, but the amount of influence brought to bear upon the committee. Such unhappy state of things betrays a weakness in the constitution of the Boards of Studies and chiefly accounts for the fact that the books possessing no intrinsic merits, and which should not have been selected, are sometimes prescribed as text-books. Besides this, the method of selecting the members of the Text-books Committee does not appear to be based on a sound principle. Apart from any reflection upon anybody, it may be safely pointed out that members have sometimes been selected on mere recommendation and are allowed to express their opinions on a particular subject of which they have no knowledge. Moreover, there are some members who are so busy with their professions that they can ill-afford to spare time to go through the books submitted to them. If these members are eliminated, and men of literary taste and studious scholars who can afford to spare time be largely appointed, better results may be expected from them. I would suggest that when a book is to be selected, heads of colleges should be consulted. This will be a distinct improvement.

As regards the rule that every Fellow must be assigned to a Faculty, I think it need not be so, *e.g.*, if Government confers complementary Fellowships on a person as a mere mark of honour for obliging him for his valuable services in matters other than educational, without taking into consideration his educational qualification, such a Fellow should not be assigned to a Faculty; otherwise efficiency of the Boards will be impaired. It will be a more salutary rule if Fellows are elected by the general body of graduates subject to the approval of, and confirmation by, the members of a Faculty to which they are to be elected.

8. *Graduates.*—I think it is desirable that a Register of Graduates higher than Bachelors of Art should be formed and the registered graduates only be allowed to elect Fellows. Such a register should be complete and kept up to date, but I doubt whether it will be reasonable to charge any fee. Many graduates will not like the imposition of a fee. As far as I have been able to ascertain after consulting the opinion of a number of them, they are generally against this imposition. Moreover, the question is how the fee will be collected. After the college career the graduates scatter over the country, and some of them go on service to distant parts of India, and their addresses may now and then be changing and will have to be found out. They may not remember the exact date of payment. Demands for fee will have to be made, reminders are required to be sent to them. The task is neither pleasant nor easy. Again there will be some graduates who will feel difficulty in paying the fee, unless they begin to earn. Taking these facts into consideration, it seems reasonable that no fee should be charged; at any rate, graduates dependant on others and without any income, should be exempted.

There is no harm in honouring with suitable degree the able and distinguished men of letters from other Universities, provided it is not made cheap.

9. *Students of the University.*—It is an open secret now-a-days that certificates in many cases are granted to the students without due consideration, owing to the unhealthy competition of those schools and colleges which have mercenary end in view; authorities feel less scruple in granting the certificates and class-promotions to the students, so that they may not leave their schools and colleges; on the contrary, disheartened students from other colleges come and swell their number. Such mercenary motives should be effectually repressed. But it must be said in all fairness that the small percentage of passes is no criterion to arrive at the conclusion that certificates are granted without due and proper consideration. There are other more potent causes which accounts for the large number of failures in the University.

It must be admitted with candour that very little attention is paid to the growth of a genuine University life. Professors and pupils seldom interchange their views freely. Relation between the tutors and the taught in schools and colleges is almost the same as the relation between a Government official and his subordinate clerks. Professors ask the students only to do the routine works in the class-room, and keep themselves generally aloof from their pupils. To mix with them freely, to take part in a lively discussion, to discourse with them on a thesis, or give them opportunities of learning manners and morals from personal examples, are of rare occurrence. There is hardly any society where teachers, professors, and students of different colleges assemble together for interchange of views.

In order to foster a genuine University life I would suggest as follows:—

(1) Boarding-houses or hostels should be established under the supervision of the Registrars of the Universities. If it is not possible for any reasons (pecuniary or otherwise), private enterprises should be encouraged by grant of licenses containing the strict rules and regulations of boarding-houses. No owners or proprietors of premises be allowed to let their houses as messes or boarding-houses, unless they or the managers of such boarding-houses take out license and comply with their provisions.

There are well-to-do persons whose business is to build large houses for letting out. If they are encouraged, there is a good ground for hope that a number of suitable boarding-houses will come into existence, care being taken that there may not be a spirit of starting small messes on the strength of license. Such private boarding-houses should be under the supervision and timely inspection of the Registrar. Moreover, there should be a rule that those colleges and schools which have no boarding-house of their own should send in turn a professor or teacher after the school hour to supervise these boarding-houses. Such supervising professors should not only inspect them, but remain with the boarders for two or three hours mixing with them freely, playing with them if possible, discussing literary, scientific and theological subjects outside the course of their study and general topics of the day, inspiring them with love of God and reverence for elders and thus shaping their character and forming their manners and morals by personal influence and examples.

(2) Clubs and societies with suitable libraries, and periodicals and journals, and things of historical and literary interests, should be encouraged, and it should be the practice almost amounting to a rule with the professors and principals to invite students of different colleges to such clubs and pass time with them (say hour or two) in pleasant discussions on various topics of the day. They should also invite eminent men and distinguished scholars for delivering lectures on subjects beyond the ranges of their studies, and thus try to create a real taste for reading and culture. The students should also be encouraged to read papers on English and Indian authors and their works, ancient and modern, and keep themselves informed of the educational and scientific progress of the day.

(3) *College parties and picnics.*—The principals of different colleges may combine together to get up from time to time college parties and picnics in suitable seasons so as not to interfere with examinations, and invite the college students to take part in them. There will be, I think, no hitch in meeting the expenses as the students will be glad to pay a small subscription for the time. If a student be too poor to pay the subscription, he should not be excluded from the parties. The parties and picnics should be held in such places as Botanical

Garden, Zoological Gardens, Asiatic Museum, etc. To give such parties a literary character, dialects in English and Indian classical languages, recitations of poetry and rhetorical passages, scientific experiments by students, soiries, etc., should be introduced. Professors should be present in such picnics. This will give ample scope and good fields to the students for exercising their latent talents, and afford good opportunities to those who are not under the tuition of Eurasian professors to correct and modulate their pronunciations.

(4) *College sports and out-door games.*—I think almost all the colleges in big towns have athletic grounds and gymnastic masters. One college now and then enters in a cricket or foot-ball match with another and students from different colleges gather together, but such matches depend more on the predilection of the students than that of the professors or principals. In other sports and gymnastic exercises there is no such competition between different colleges, and the students do not come together to see the gymnastic and athletic performances. I think it will be more useful if the principals of different colleges interest themselves in holding competition in college sports and out-door games as well as gymnastic performances on suitable grounds and invite the professors and students to come and join such sports; it will not only afford an opportunity of bringing the young men together, but will give an impetus to physical training.

As regards the limit of age, I am of opinion that no minimum age limit be fixed. Instead of limiting the age I think courses of study should be limited and multiplicity of subjects should be cut down. No doubt strain of examination may affect the young brain, but strain of remembering numerous subjects and going through courses of studies out of proportions produces greater strain than that of examination. If it is apprehended that with such multiplicity of subjects strain of Entrance or Matriculation Examination will affect the brain, it will as well affect the brain during several class examinations. Moreover, great majority of students passes the Entrance Examinations above the age of 15, *e.g.*, in 1899 out of 999 boys who passed the Entrance Examination in the first Division—

4 boys were of 12 years,

34 boys were of 13 years,

87 boys were of 14 years,

and the rest were above 15 years. It is the boys of exceptional brilliant parts who appear in the examination at an early age, and their intelligence being naturally sharp, they understand things quicker with less exertion of brain and do not overtax it with cramming, so there is less apprehension of injury to their brain. Fixing the minimum age means checking the progress of these brilliant boys; even if the age is limited, strain of examination will be the same unless the heavy burden of study is reduced.

10. *University Teaching.*—A mass of information has already been placed before the Commissioners from which they can form a fair estimate of the value of the University teaching. They have heard of the multiplicity of subjects, numerous text-books, faulty mode of teaching, insufficient time at the disposal of the student to assimilate and digest what they learn, their habit of cramming, severe strain of examination, mode of examining papers, whimsical questions, eccentricity of examiners, etc., all of which combine to deteriorate the University teaching and produce results which are neither desirable nor beneficial. To attempt to give a detailed account in each head will lead to the repetition of thrice-told tales and waste of time. Instead of doing this, I would place before the Commissioners the scheme of the University teaching which I hope will be beneficial.

*Entrance Examination.*—In this examination four main subjects are taught—English, a second language (as it is called), Mathematics, and History and Geography. Besides these, there are minor subjects such as Physical Geography, Science Primer, and Drawing. Formerly there was Mensuration which has been done away with, and Science and Drawing have been introduced. I think these minor subjects should be abolished from the Entrance Course, and two books of Geometry should be prescribed instead of four. Knowledge of the History of England being necessary, it should be prescribed along with the History of India, and the examination should be confined to four main subjects only, so that there may not be division of attention over

multiplicity of subjects and the students may find more time to pay more attention to composition and real mastery of the main subject. Bearing in mind that English as well as the second language (Sanskrit, Persian, or Arabic) are both foreign to the Indian students and they have to learn two foreign languages with other subjects, and that Indian History is increasing with the change of Viceroys, it is desirable that the courses of study should be simple. In the place of minor subjects, composition in English and in second language may be made compulsory. The courses of studies being thus simplified, students will find time to devote to the study of out-books and real mastery of the subjects, and there will be less temptation to cramming. Moreover, teachers will have time to explain satisfactorily every paragraph of the books to the varying understanding of their pupils instead of hurrying over them with the main object of finishing the prescribed books before the test examination, and to demand more exercises in every subject. There need not be apprehension that such courses of study will lead to the lowering of the standard of examination, rather quality of teaching will be superior and is likely to lead to a high standard and beneficial results. Standard of examination should be sound knowledge of even limited subjects and not superficial knowledge of various subjects.

*F.A. Examination.*—The above remarks are applicable to the F.A. Course also, but before suggesting how subjects should be grouped in the F.A. Course I would consider whether it is desirable to hold two such mixed examinations as the Entrance and First Arts. It has been suggested to abolish the F.A. Examination and to extend the terms of the B.A. Examination by one year. I think it is not desirable to do so, for this simple reason that after passing the Entrance Examination boys do not become so strong in English or in Indian classics as to understand the difficult subjects of the Degree Examination. It is desirable to teach the F.A. Course but not in its present form. The present F.A. Examination is most cumbrous and multifarious. It should be simplified by judicious arrangements of subjects and divided under two heads, *viz.*—

I.—(1) English; (2) a second language; (3) History; and (4) Logic.

II.—(1) English; (2) Mathematics; (3) Physics; (4) Chemistry.

The students should be allowed to exercise their discretion in making selections of any of these two groups.

*Vernacular Languages of India.*—It is true that all the vernacular languages of India have not so developed as to find a place in the higher examinations, but I think there are some vernacular languages which should find a place at least in the F.A. Examination, *e. g.*, Urdu and Bengali. These two languages are not the same as they were 50 years before. They have rapidly developed and are allowed in the F.A. Examinations for female candidates. They may as well be allowed in the case of male candidates. Tamil, Telugu, Hindi, Burmese, etc., are not allowed in the F.A. Course even for the females. This shows that Bengali and Urdu have sufficiently developed to find a place in the F.A. Course for both sexes. I would insist upon the introduction of these languages in the F.A. Standard for the sake of consistency and removing the difficulty which the students who pass the Entrance Examination with Bengali or Urdu greatly feel in the F.A. Examination when they are compelled to take up a new language. In the B.A. Course there is no hitch, as the students who have no taste or aptitude for the classical languages and Mathematics may take up the first group of the F.A. Course and A. Course in the B.A. Examination with History as optional subject. Thus the students will be able to exercise their free choice in selecting the subjects according to their taste and aptitude from the Entrance up to the M.A. Examination.

*Sanskrit and Arabic.*—These two languages are so very difficult that they should themselves form subjects of independent study, but under the University rules up to certain examinations it is not possible. Nevertheless their study should be systematic, and books should be prescribed on some principle; but the way in which the books are selected discloses a lamentable want of an intelligent principle. Study of simple prose facilitates easy mastery of a language than that of poetry, but the maxim seems to be otherwise with those who select Sanskrit and Arabic books. The Sanskrit Entrance Course contains two-thirds poetry and one-third prose; and there is no prose in the F.A. Course,



Raghubansa (cantos I-VII) being the only text; the B.A. Course contains poetry, Kumar-Sambhava (cantos I-VII), and Sishoopalbadha (cantos I-II), and Sakuntolah (prose and poetry) in three-fourths poetry and one-fourth prose. Formerly the F.A. Sanscrit Course consisted of Dasa-Kumar-Charit and four cantos of Raghubansa, and the B.A. Course, Kadumbari, Sakuntolah and Kumar Sambhava, but the Dasa-Kumar-Charit and Kadumbari are the most difficult books containing long and puzzling compound words (Samases) and have been rightly excluded from the courses of studies. But some other simple prose books should have been substituted in their places. The same remark is applicable to the Arabic courses; such selections out of proportion should be done away with.

As regards the teaching of Sanskrit and Arabic Grammar, it is as bad as the system is condemnable. It is an undeniable fact that a thorough knowledge of Sanskrit and Arabic Grammar is required at the initial stage of learning the languages, and therefore it should be taught in an intelligent and systematical manner; but the pity is that, although some sort of Sanskrit Grammar is prescribed for the Entrance Examination, no Grammar is prescribed for the F.A. and B.A. Courses. The matter is still worse with Arabic. Neither for the Entrance nor for any higher examinations any Arabic Grammar is recommended or prescribed. Such palpable and lamentable defects in the case of Arabic are mainly due to the want of proper care, active interest and sense of responsibility on the part of the Mahomedan members of the Board of Studies. What I would suggest is the systematic teaching of the Sanskrit and Arabic Grammars in the college classes. Up to the Entrance Standard, general knowledge of these Grammars may be allowed; but from the first year Panini's Grammar in the case of Sanskrit may be taught, dividing it in such a manner that within five years, *i.e.*, up to the M.A. Class, the Sanskrit students may acquire a mastery over it and may not feel difficulty in understanding the peculiarities of Vedic Grammar in grasping the portions of Vedas and Upanishad prescribed for the M. A. Course. In the case of Arabic it is difficult to point out a grammatical work which will come up to Panini's standard, but a happy selection may be made out of the existing Arabic Grammars; but I would certainly object to the silly method of teaching the rubbish Grammars which find currency in the Madrasha of Bengal.

*M. A. Examination in Persian.*—The candidates studying Persian for the M.A. Degree are required to learn Arabic up to the F.A. Standard. It is not desirable nor reasonable that a student who has to devote his attention over a larger field of Persian literature is abruptly required, at an advanced stage, to learn a new and difficult language for which he may not have any taste or aptitude. Such division of attention and flitting away energy lead to superficial mastery of the subject. The mere fact that Persian contains a large number of Arabic words or phrases should not be a ground for compelling the students to learn a bit of Arabic (Beacon's Essays contain a large number of Latin words and quotations, but for that reason Latin is not taught to the students of English literature). I would suggest that this rule should be abolished, and in the place of Arabic Persian Philology should be introduced.

*Examinations.*—Examinations are not conducted on a happy method. There is no uniformity in the framing of the questions; in some years they are too stiff, in some they are so comprehensive that their answers take much more time than the candidates can possibly spare. Again questions are sometimes put which should not have been given at all. Moreover, marks are allowed not according to the merit of an answer, but according to the standard of text and directions given by the Head Examiners. Such an unhappy state of affairs generally give rise to frictions between the Head and Paper Examiners who look upon the directions of the Head Examiners as unreasonable mandates against the dictates of their conscience. But the great defect of the University examinations consists in the fact that it selects persons to examine papers of the graduates and undergraduates on the subjects of which the examiners themselves have no knowledge. As an illustration it may be pointed out that some of the examiners who set and examine Persian and Arabic papers do not know English at all, and it is difficult to understand how they can judge the correctness and merits of those answers which are written in English, or of the translations of the Arabic and Persian extracts rendered into English. These defects should be remedied and uniformity of method in examinations should be established.

11. The present rule of the Calcutta University requires a candidate who has got plucked in one subject to be examined again in all the subjects including the subjects in which he has carried the highest marks. This principle does not appear to be sound and good, rather involves the sheer waste of time and energy. Had he been allowed to devote his undivided time and attention to the subject in which he is deficient, he could have thoroughly made up his deficiency and acquired a mastery over the subject. I would, therefore, suggest that this rule may be observed and the plucked candidates be required to be examined only in the subjects in which they are deficient.

12. *Registrar and his staff.*—Taking into consideration the increasing and multifarious works of the Calcutta University, and in view of the additional burden to be thrown on the Registrar owing to the supervision of the proposed boarding-houses and hostels, I think it is desirable to have a whole-time Registrar, and he should have an efficient staff of subordinates to assist him in the prompt and satisfactory discharge of his duties.

13. I do not think inter-collegiate lectures are possible in this country. The number of the students in college classes is already high, and if they are to assemble together in a place for a term of special lectures, it will be unmanageable and the students may not be able to follow the lectures. Moreover, unless the lecturer be of very high scholastic reputation, students won't be curious to attend his lectures, rather they will be satisfied with the lecture of their own college. As to a specialist travelling from college to college and delivering lectures on some special subject, I doubt whether such a plan will be practicable, *first*, because it will be difficult to get such eminent scholars; *secondly*, it will be more difficult to induce such scholars to undertake the task; *thirdly*, the private colleges may not be in a position to meet their demands, but it must be said that inter-collegiate lectures are very useful and should be introduced, if practicable.

What appears to be practicable is the introduction of the system of post-graduate lectures. Such lectures will stimulate the intelligent students to devote themselves to researches and works of original thoughts. Rewards in the shape of handsome scholarships should be given to encourage the students to carry on literary and scientific investigations. It is very desirable that the Universities should create a number of *Research Scholarships* on the line of Premchand Roychand Studentship, and Tagore Law Professorship, for carrying on investigations in the different branches of Arts and Science. Such Research Scholarships should be of two kinds :—(1) For original researches in India, and (2) for travelling in foreign countries such as Europe, Japan, etc., for the purpose of education and investigation. One of these *Research Scholarships* should be given to the Medical College for investigation into the system of the Indian Medical Science, and for experiments and analysis of indigenous medicine. The *Unani* and *Ayurvedic* systems of medicine are fit subjects of study, and a medical student will find ample field for researches in them. These medical systems recently attracted the attention of the Indian Medical Congress, but nothing practical has been done to make them subjects of study; but an impetus in this direction should be given by establishing a special scholarship for medical researches.

14. *Mahomedan Education.*—With the permission of the Commissioners I beg to speak a few words with special reference to the Mahomedan education in Bengal. The Bengal Musalmans labour under peculiar disadvantages which seriously interfere with the education of their children. All the primary, vernacular or middle English schools (private, aided or Government) are of such nature that they do not suit the requirements of the Mahomedan boys, so far as learning of languages is concerned; and their knowledge of vernacular as well as their own classical languages being insufficient and defective from the beginning, it greatly affects their educational progress in high English school and college department. Bengali being the medium of instruction in schools of Bengal, it does not suit the boys of all classes and shades of Mahomedan society. There is no provision for Urdu schools under the Director of Public Instruction in Bengal. A very few of the private high schools have *Moulvis* to teach Urdu or Persian. In the Government and aided schools a Moulvi may be seen teaching the second language only; but all the subjects are taught through the medium of Bengali. Those



boys who do not understand Bengali sit idle staring in the face of their teachers when they explain the passages in Bengali ; those who understand Bengali learn the meaning of English words and phrases in Bengali which they do not study, but are required to translate the English passages in their second language to which they are not habituated and taught to translate. This is anomalous and leads but to superficial knowledge of the subjects taught.

It will be interesting to examine what sort of teaching and instruction the boys receive from the Moulvis. It is perhaps well known that these Moulvis are the products of the Madrasa of Bengal who do not know English. As regards Urdu, their attainment in it is as poor and meagre as their knowledge of the Bengali language. In teaching the second language, they cannot explain the Persian or Arabic passages in English, nor can give equivalent English words unless a Moulvi happens to be a graduate or undergraduate, which is seldom the case ; their explanation in Urdu is far from being correct and satisfactory. Mahomedan boys cannot expect to learn Persian or Arabic translations from the Moulvis. A Hindu composition teacher is no help to the Moslem boys whose second language is Persian or Arabic. Such being the true state of affairs, it is no wonder that we generally find the Bengal Mahomedan candidates writing essays or original compositions in Bengali, a language in which they receive no training but pick up in a haphazard manner. This is a great drawback which seriously interferes with their college education and stands in their way of competition with their Hindu brethren who receive a regular training from their infancy. Such unhappy state of affairs exists, because the pay of these Moulvis is so poor and so little prospect of promotion is before them that no English-knowing Moulvis or graduates in Persian or Arabic will join the schools except the hopeless and helpless Moulvis of the Madrasa.

In mofussil schools demands for Persian teachers are very great, and this demand is quite in keeping with the increased number of Mahomedan students in schools and colleges as will appear from the figures quoted below :—

	1889-90.	1898-99.
Art Colleges . . . . .	179	413
High English Schools . . . . .	7,960	10,728
Middle English Schools . . . . .	8,835	10,569

This increase in the number of Moslem students is the happy sign of the time, but unless the demand for Persian teachers is supplied, better results in their college education cannot be expected.

In big towns such as Calcutta we find three classes of Musulmans—(1) those who come from up-country and permanently live in the town ; (2) those who reside in the town on service and for business, their home being elsewhere ; and (3) those who are settlers of Bengal. The children of the first two classes speak and understand Urdu. The number of the children of these two classes is greater than those of the third class. In big towns, especially in Calcutta, there is not a single primary or middle English school for the Urdu-speaking children, where English or other subject is taught through the medium of Urdu. Unable to understand Bengali these boys do not like to take admission in the Bengali schools. This is one of the chief reasons why the Mahomedan education in big towns is so limited.

Owing to the want of Persian teachers in mofussil schools there is a growing tendency on the part of the Mahomedan boys to take up Sanskrit in the place of Persian. There are some instances of Mahomedan students studying up to the M.A. Degree in Sanskrit. But as there is no chair in the Presidency College for the M.A. Degree in Sanskrit, the Mahomedan candidates found great difficulty in prosecuting it. Under the circumstances it is desirable in the interest of Mahomedan education that (1) provisions be made for a chair for the M.A. Degree in Sanskrit for those who cannot be admitted in the Sanskrit College ; (2) demands for Persian teachers in mofussil be satisfied ; (3) English-knowing Moulvis be provided for in the high English schools ; (4) Urdu schools be established in big towns. It will be better if the Collinga Branch School which has been amalgamated with the Calcutta Madrasa be separated and removed to the Northern Division of the Metropolis.



सत्यमेव जयते

BABU MAHENDRA NATH ROY, FORMERLY PROFESSOR, CITY COLLEGE.

I.—TEACHING UNIVERSITY.

I would suggest the establishment of University Professorships to be held by specialists of high attainments in subjects for which competent teachers are now rarely available in the country :

*For examples.*

- (i) Comparative Philology,
- (ii) Hindu Philosophy,
- (iii) Higher mixed Mathematics,
- (iv) Physical Science,
- (v) Chemistry.

I shall make the lectures of the University Professors in these subjects open to—

- (i) Teachers in the affiliated colleges, and
- (ii) Candidates for the higher examination, such as M.A., D.Sc., etc.

The Professorships may be maintained either at the expense of the State or partly at the expense of the State and partly by increasing the income of the University by moderately raising the fees charged for the Arts Examinations. If we rely upon private munificence for the endowment of University Chairs, we may have to wait for an indefinite length of time.

But in order that the University Chairs may be of use in stimulating spirit of culture and original research in the country, our University should possess a library and a laboratory worthy of the premier University in India ; and we cannot afford to have either, unless it be at the expense of the State.

II.—CONSTITUTION.

(a) *Fellowship*.—I am not in favour of making Fellowships terminable after a fixed number of years. If only properly qualified men are appointed Fellows, they do not lose their efficiency after some length of time ; and if the number of Fellows be not fixed at too low a figure, death, removal for non-attendance, resignation and departure from India, will furnish ample room for the appointment of new Fellows. But a provision for vacating Fellowships by non-attendance at meetings for a certain number of times consecutively, is eminently desirable.

(b) *Election of Fellows*.—The system of election, or rather nomination, of a certain number of Fellows by the graduates of the Calcutta University, has worked satisfactorily. It has at least resulted in the appointment of Fellows who can intelligently follow, and take part and interest in the proceedings of the different deliberative bodies constituting the Calcutta University.

III.—BOARDS OF STUDIES.

The Boards should be so remodelled that each may consist only of a small number of experts. The present number of members is too large, making it possible for gentlemen to be elected members of a Board for which they may possess no special qualifications.

IV.—TEACHING OF ENGLISH.

My experience as a teacher and examiner has convinced me that the unsatisfactory and irregular results of the different examinations, leading from the Entrance to the B.A. degree, are mainly due to the standards prescribed in English for the Entrance and First Arts Examinations being too low. The

result is that students enter on their University Course with a very inadequate knowledge of English. By far the large majority of them are unable to follow intelligently and appreciate the English of the text-books and lectures intended for their benefit, and they break down completely when they come to the courses of study prescribed for the B.A. Examination. The defect may, to some extent, be remedied by—

- (i) Raising the minimum pass marks in English in the Entrance and First Arts Examinations,
- (ii) Selecting more suitable pieces for the Entrance Course in English,
- (iii) Improving the character of the questions set so as to discourage cramming and to test the candidates' power of expressing their thoughts in correct and clear language, and perhaps,
- (iv) Introducing a preliminary examination to the Entrance, in Dictation and Composition, and weeding out candidates who do not do well in these subjects, as has been suggested.

But I venture to think that no real improvement can take place, until the teaching of English is improved in the schools and colleges by insisting upon the appointment of a class of teachers better paid and better qualified than those now generally employed.

The experiment of teaching the English language and literature by gentlemen whose vernacular is not English, however high their scholarship may be, has not, I am afraid, succeeded; and I am strongly of opinion that as regards the affiliated colleges, the University should make it compulsory on the college authorities to appoint, as teachers or lecturers in English, gentlemen whose vernacular is English and who at the same time are graduates of some universities.

#### V.—EXAMINATIONS. SETTING PAPERS.

The Calcutta University rule that. "No gentleman shall be appointed to set a paper in a subject of which he teaches the whole or a part", has not, to my mind, worked satisfactorily. In spite of elaborate rules for setting and moderating papers, well founded complaints annually recur about

- (i) Questions being set outside the courses prescribed,
- (ii) Questions being set beyond the capacities of the candidates,
- (iii) Questions being set tending to encourage cramming.

[To refer only to the First Arts Examinations which is still going on, a question was set in English outside the course prescribed, another in mathematics of the same character, and a third in Physics beyond the capacities of the candidates.

The old system of having a paper on a subject set only by a gentleman teaching that subject should be reverted to, although it might have led to occasional abuses. Of course, none but gentleman of high attainments and character should be appointed, and that will be a sufficient guarantee against any possible abuse.]

#### VI.—AFFILIATION RULES.

(a) *Private unendowed Colleges.*—I am of opinion that the rules of affiliation should be so modified as to require each affiliated college to maintain a tutorial staff consisting only of men of high attainments and culture on adequate pay, the nominations and scales of pay being subject to the approval of the University authorities, and any lowering of the initial standard in either respect rendering the college concerned liable to disaffiliation.

[The evil which the proposed rule is intended to remove is inevitable in unaided and unendowed private colleges, of which the existence depends entirely upon the fee receipts from their students; and the rates of fees charged by these colleges are, for various reasons, so low that they find it absolutely necessary to entertain, with rare exceptions, a cheap tutorial staff.

(b) *Government Colleges.*—The reason does not exist in the case of the Government colleges, but I am sorry to find that latterly there has been a

tendency even in the Government colleges to appoint Indian gentlemen on a scale of pay at which I do not consider it generally possible to get the services of really first class men.

(c) *Secondary Schools*.—The secondary schools in the province which send up boys to one Entrance Examination suffer to a much larger extent from this evil of low pay and consequent inefficiency; and I am afraid that even the Government high schools can not always be excluded from this category. The gradual withdrawal of State support on a liberal scale from the colleges and high schools, will surely prove disastrous to the cause of education in the country.] The rules of recognition of schools should also be similarly modified in regard to the pay and qualifications of teachers. While on this point, I beg to express my entire concurrence in the proposal to institute a degree of *Licentiate in Teaching*.

*Inspecting Staff*.—I am of opinion that the University ought to have a highly qualified inspecting staff, exercising in regard to the affiliated colleges the same duties as are exercised by the Government Inspector of Schools in regard to secondary schools.





सत्यमेव जयते

DR. SARAT KUMAR MULLIK OF ST. FRANCIS HOSPITAL  
(LONDON).

I. *Staff of the Medical College.*—I wish to briefly state a few facts connected with the present system of medical education in India. Of all the medical questions which require the attention of this Commission the question of professors appointed to the Medical College is in my humble opinion the most important. All Medical Education is subsidiary to this great cardinal factor, for if it is admitted that the *fons et origo* of medical training is defective the rest of the subject must participate in that defect. At present medical chairs are filled solely by members of the Indian Medical Service in Bombay, Madras, Calcutta and other presidencies. Thereby the field of choice is considerably contracted. Such a contraction obviously cannot possibly conduce to as good a selection as would be the case if the choice were made by open competition by means of public advertisement. The Indian Medical Service enjoy a monopoly, an unwarrantable monopoly, and there is no reason why such an impartial body as this should allow such an injustice to be perpetuated. It is an injustice for more reasons than one. In the first place it is an injustice to the students, for they are placed under teachers who are not always the best available; secondly, it is an injustice to the public at large, inasmuch as College Professors are supposed to be the consultants for their Presidency and carry with them the responsibility attached to high proficiency; thirdly, it is an injustice to the Science of Medicine because the Professors of Medical College as the supreme medical body are looked up to for the creation of that scientific spirit so essential in all civilised communities. As at present constituted we do not get the best available teachers because the medical profession at large is rigidly excluded from the area of selection. As regards the Indian Medical Service it is the exception for its members to show any special aptitude in any special subject not because they are inferior men so far as their initial training is concerned but because the conditions of service are such that there is neither the incentive nor the opportunity for devoting oneself to special research in the majority of instances. The opportunity sometimes comes when they are actually appointed professors and have or ought to have the leisure to attend to laboratory work. But by that time most of them have got into the yellow and sere of their lives and when the energy necessary for vigorous work is wanting. In most countries especially Great Britain which we have taken as our model, no one is appointed a professor unless the fact is notified in the press. It thus ensures the fullest publicity and gives a chance for all to compete. The candidate chosen is one who has given evidence of prolonged specialism having published some original work. Contrast with this the position of the Indian Medical Service professors. The majority of them have had a College or University career of best average merit. Some few amongst them have probably held junior appointments in England as House Physician or House Surgeon or Demonstrator under some lecturer. These appointments though of considerable value in themselves are of little avail unless they are made the first amongst successive rungs in the professional ladder to scale which it is not possible for the average Indian Medical Service officer with his age limit. They compete for the Indian Medical Service which is a general examination and the successful ones are sent to Netley for a few months' course of training before coming to India. They are then attached to a regiment and then their services are "lent" to civil stations where their duties are multifarious extending from treating a stomach ache to mounting guard over a jail. So far it will be observed the Indian Medical Service officer has had no chance of specialising. As he rises in the grades and what is also of no mean importance, wins his way into the good graces of the powers that be, he suddenly finds himself in the equivocal position of having been transformed into a full fledged specialist by the magic orders of an appreciative Government and he is forthwith attached to an important chair in the Medical College. The task of Cincinnatus was a mere bagatelle compared to the exalted transformation of our friend the Civil Surgeon with his many-sided activities into a specialist of a most pronounced character. In all competitions I would *not* exclude Indian Medical Service officers.

Thereby all unfairness would be removed, for if under this system of open competition the Indian Medical Service officer was the best qualified no one would grudge him his well earned laurels. During the discussions which I had raised at the most important of all medical bodies in our Empire, *viz.*, the British Medical Association it was urged by the apologists of the present system, that it was an "open" system, inasmuch as anybody who desired to compete for these chairs could do so by entering the Indian Medical Service. This is a most insidious assertion. There are many reasons which militates against many in joining the Indian Medical Service. The age limit, the military regulations and exclusions governing the Indian Medical Service Examination, the physical qualifications and as regards Indians, having to cross to England on a precarious mission in an inhospitable climate and amongst a strange people and all this on the off chance of being successful are some of the objections which prove that the present is not a policy of the "open door" in the large and true sense of the term. At present we are perpetuating the monstrous puerility not of regulating the Medical Service for the nation but the nation for the convenience of the service, for there is not the shade of a shadow of a doubt that the tendency of monopolies such as the present is to produce this anachronism. The evil is aggravated when we find, as it has been repeatedly done in various parts of India, one professor has been called upon to teach totally different subjects each of which requires a lifelong study. There is an instance cited by the late Dr. Bahadurjee in which an Indian Medical Service officer had held the posts of Chemical Examiner to the Government, Professor of Chemistry, Professor of Physics; he had been successively a Surgeon, a Physician, had occupied the chair of Hygiene, then was Superintendent of the Ophthalmic Hospital, Lecturer of Ophthalmic Medicine and Surgery and Professor of Jurisprudence. A varied knowledge in all conscience; and one is tempted to exclaim "still the wonder grew that one so small a head could hold all that he knew." This scandal for it is nothing short of one leads to a smattering of knowledges and I have in my possession evidence to show that in a neighbouring presidency some of the Indian Medical Service teachers actually read out their lectures *verbatim* from certain well-known text-books. Is the reformed University to be satisfied with such an unenviable notoriety? Human nature had enough to endure. Are we in India going to intensify that, by shirking our plain duty of reforming such of the abuses as exist? In Europe all great advances were made by those who had specialised. Pasteur would not have placed humanity in his debt had he shifted from subject to subject; James Young Simpson would not have abolished pain by the introduction of chloroform had he changed from chair to chair, and Lister would not have given life to millions had he frittered away his transcendental genius in varied and diverse pursuits. As regards these professorial defects of medical training in India, the British Medical Association had by a large majority taken them into its consideration. Professor Thomas Fraser, F.R.S., M.D., late Dean of the Faculty of Medicine, Edinburgh, and the late President of the Royal Commission on plague, has pronounced against the present system of appointing professors, and Sir William Church Bart, President of the Royal College of Physicians and head of the Medical profession in England, in a letter to me states—"it seems to me that it cannot be right that teachers should be changed from chair to chair if the subjects they teach are different."

II. *College accommodation*.—The Principal of the Calcutta Medical College in his evidence the other day frankly admitted that owing to want of space in his college his policy had been to keep the numbers of medical students from increasing. More or less this has been the policy in other presidencies. The rules framed in Calcutta are more Draconian than those which prevail in such enlightened centres of Medical Education as London and Edinburgh. Under the circumstances either the Medical College should be enlarged or other institutions such as Calcutta College of Physicians and Surgeons and Calcutta Medical School. After a rigid and proper test as regards teachers and appliances should be recognised as legitimate portals to approach the University examinations. The Campbell Medical School is now conducted in the vernacular. I believe if English classes were opened and recognised by the University after a scrutiny it would do much to relieve the congestion in the Medical College. It cannot



be said that the number of doctors turned out by the University is inordinately large. I have just returned after an extensive tour throughout India and I have come across places where a hospital assistant or "apothecary qualified" officers are doing the duties which should be performed by Assistant Surgeons. The fact is that the fully qualified men do not care to join a service with such inadequate honours and remuneration as the Subordinate Medical Service and what is far more important the paucity in their numbers encourages them to earn a better livelihood as private practitioners. By creating greater facilities for Medical studies we shall be able to turn out more available doctors out of the way places. This system of "Extra-mural" Schools is prevalent in Edinburgh and in the newly remodelled University of London. Several Medical Colleges have been recognised as a part and parcel of the new University. A healthy rivalry would spring up in India. Self-preservation being the first law of nature each would vie with the other in alleviating the ills to which flesh is heir as that alone would be the *raison d'être* for their existence.

III. *Practical teaching*.—More attention should be paid to practical teaching than is done at present. Each subject ought to have its practical class room. Without this the study is incomplete and there is no incentive for original research. If it is true that the child is the father of the man, then the opportunities for originality should be afforded early. The University which aims only at a bread and butter ideal is a very poor representative of a noble institution. Regular medical research classes ought to be a part of the reformed University. With all their conceit physicians have to admit their impotence in dealing with many diseases. In India we have tropical diseases of every shade flourishing in rank luxuriance and therefore there is the greater reason why we should train up fighters against these diseases.

IV. *Source of Economy*.—At present the Calcutta Medical College and the Presidency College though situated cheek by jowl each maintains a separate staff of teachers and classes in subjects which are common to both. I would amalgamate these chairs and make both sets of students attend the same classes. The money thus saved would go towards affecting many improvements which are at present necessary.

V. *Control of Medical Education*.—The present control of Medical College by the Inspector General of Civil Hospitals is entirely out of harmony with the spirit of the times. The Inspector General, however estimable a gentleman he may be otherwise, is not a proper authority. One of his disqualifications, as Lieutenant-Colonel Bomford rightly observes, "is that he should know nothing of Bengal, at any rate some one is always brought from another province who knows nothing of Bengal and Bengalee students." Medical education ought to be brought under the direct control of the University. I am convinced that then and only then would the teaching of medicine be efficient. Physicians should receive the best professional help available. They are anxious to befriend their fellow beings to the best of their ability, and instances are neither few nor far between in which they have cheerfully laid down their lives for God and humanity.