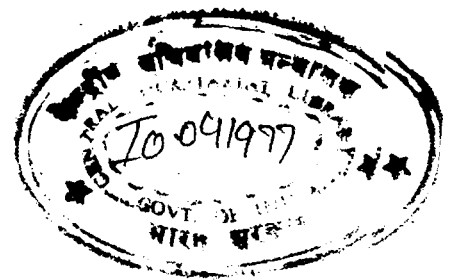
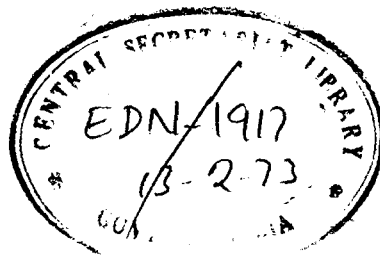


**REPORT ON COLLEGES BY THE UNIVERSITY
INSPECTORS PATNA UNIVERSITY, 1918-19**

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UNI-C, 1918



I.

REPORT

ON

PATNA COLLEGE

FOR 1918-19.

The College was affiliated to Calcutta University in the following subjects up to the standards mentioned :—

B.A.—English (Pass and Honours), Vernacular Composition, Persian and Arabic (Pass and Honours), Sanskrit (Pass and Honours), Political Economy and Political Philosophy (Pass), History (Pass and Honours), Mathematics (Pass and Honours), Physics (Pass and Honours), Chemistry (Pass), Philosophy (Pass).

B.Sc.—Mathematics (Pass and Honours), Physics (Pass and Honours), Chemistry (Pass and Honours).

I.A.—English, Vernacular Composition, Sanskrit, Persian, Arabic, Logic, History, Mathematics, Physics, Chemistry.

I.Sc.—English, Vernacular Composition, Mathematics, Physics, Chemistry.

(Inspected on January 6th, 7th and 8th, 1919, by Messrs. D. N. Sen and E. A. Horne and Dr. K. S. Caldwell).

I. GENERAL.

ADMINISTRATION.

1. The College has a duly constituted Governing Body, the present members of which are as follows :—

- (1) The Hon'ble Mr. C. E. A. W. Oldham, C.S.I., Commissioner, Patna Division, President, *Ex officio*.
- (2) The Principal, Vice-President and Secretary, *Ex officio*.
- (3) Dr. K. S. Caldwell, Professor of Chemistry.
- (4) Khan Sahib Muhammad Yasin, Professor of Persian.
- (5) S. Sinha, Esq., Barrister-at-Law.

The Governing Body met six times in the year 1917-18, and this year has met six times. The duties and powers of the Governing Body of a Government College are enumerated on pages 67 to 69 of the Education Code, Bihar and Orissa.

2. The College Council consists of the Arts and Science Professors. It met once during the Session 1917-18, and this year has met once. Its main duties are to advise the Principal with regard to the allotment of the Library grant, and the grant for Contract Contingencies. The Council also discusses questions referred to it by the Principal relating to periodical examinations, tutorial work, and general administration. A professors' meeting is held twice a year to consider and advise the Principal with regard to the results of the annual and test examinations. Meetings of the whole teaching staff are held from time to time, when there is any matter on which the Principal desires to address the staff in general.

3. The Clerical staff is as follows :—

Head Clerk and Cashier .. ..	..	..	Rs. 75—5—100
Second Clerk and Accountant .. ..	..	..	,, 35—1—45.
Third Clerk, Record-keeper, etc. .. ..	..	..	,, 25—1—35.
Steno-Typist .. ..	..	..	,, 25—1—35.
(Stenographer's allowance .. ..	..	..	,, 30/-).
(Allowance as Clerk to Students' Advisory Committee .. ..	..	..	,, 10/-).

The Principal expressed himself very strongly as to the inadequacy of the present clerical staff for the work which it has to do. It appears that both the head clerk and the second clerk very frequently have to take work home with them, which occupies them 2 or 3 hours in the evening after office hours; and at certain times of year (e.g., at the time of the University Examinations, which are conducted at Patna College) they are seriously overworked. The under-staffing of the office is such that, when one of the clerks is unavoidably absent, it is sometimes necessary to close the library and employ the librarian as a temporary clerk. It must be borne in mind that Patna College is the chief Examination Centre of the University, and that the Science Departments of the College are much more highly developed than of any other College in the Province. Furthermore in this College alone is the system of compulsory athletics maintained, and this involves attendance registers and collection of fines. A great deal of the time of the steno-typist is necessarily given to his work in connection with the Students' Advisory Committee. The proposed reorganization of the College, and the removal of the I.A. classes next July, will reduce the work of the office to some extent; but the addition to the post-graduate classes will fully counter-balance, and we are of the opinion that an additional clerk (on the pay of the present second clerk) is required, whose principal duty it would be to attend to the College registers. These are very numerous, and include, it may be noted, attendance registers for Games and Drill, which are compulsory at Patna College. The post of the second clerk and accountant, which is of a responsible character, should carry pay, we consider, of Rs. 50—2—70.

4. The various books and registers were produced for our inspection, and were found to be kept in proper form. The College accounts here are minutely checked by the Principal, and formally passed, from time to time, by the Governing Body. There has never been a professional audit of the accounts as a whole; but the accounts for trust (scholarship) funds are audited every three years by a Government auditor.

FINANCE.

5. The admission and monthly tuition fee is Rs. 6. No extra charge is made for Science teaching, though a deposit of Rs. 5 is required to cover breakages, etc. A fee of Rs. 3 is charged for the issue of Transfer Certificates. We think that a charge should be made for Honours teaching. We recommend therefore that from next session an extra charge of Rs. 2 a month for Honours teaching in any subject be made. The present fee for attending University lectures, qualifying for the M.A. degree in History and in Economics, is only Rs. 4 a month. The fee paid by post-graduate students preparing privately for the M.Sc. degree, who are allowed facilities for practical work in the Science laboratories, is Rs. 6. We consider that when full facilities are provided for M.A. and M.Sc. teaching, as it is expected they will be next July, an admission and monthly tuition fee of Rs. 8 and Rs. 10 respectively be charged as in Calcutta. The annual subscription paid by students to Athletic funds is Re. 1; and to the amount contributed by the students Government add a grant of an equal amount. Government also grant Rs. 300 for the upkeep of the Students' Common Room; and students pay an annual subscription of Re. 1 to what is known as the New Fund, out of which expenditure on the magazine and the expenses of the various college societies are met. To the New Fund the members of the teaching staff also subscribe one day's salary per annum. Students pay Re. 1 annually to cover the cost of paper etc. supplied to them at the Periodical Examinations. Thus they pay, in all, Rs. 3, in addition to their admission and monthly tuition fees.

6. In Appendix I will be found an abstract statement of income and expenditure for the last three years. It may be noted that there is an annual grant of Rs. 10,000 for the purchase of apparatus for the Science Laboratories; but that no definite allotment is made for the purchase of materials, etc. This expenditure is met out of the grant for Contract Con-

tingencies. At present the Principal allots Rs. 1,500 to the Physical, and Rs. 1,400 to the Chemical Laboratory for the purpose. Another Rs. 1,000 is allotted out of the same grant for the purchase of periodicals. We agree with the Principal that it would be better if definite allotments were made by Government for these purposes.

BUILDINGS.

7. In the main College building there is adequate accommodation for the present Arts classes. Lecturing in the two large halls is carried on under somewhat difficult conditions, however; and it would be an improvement if more rooms specially adapted for teaching small tutorial classes were available. Provision is made for the instruction of I.Sc. students in English and Mathematics, both as regards class-rooms and staff, in the Physical Laboratory. The I.Sc. classes, therefore, in Patna College are entirely separate from the I.A. classes.

8. The College is well off, as regards facilities for recreation. The Students' Common Room is a large, handsome room; and this is open, not only during college hours, but in the evening from 5 to 7. There is also a gymnasium which is fitted with electric light, and is open for an hour in the evening. There are three playing fields, one of which has recently been laid out, and is used as a hockey and football ground for different sections of the first year class. The College also possesses a football and hockey ground on the public maidan. Immediately to the north of the main building, there are two tennis courts, one of which is put at the disposal of the staff; in front of the Muhammadan Hostel, three more have been laid out; and there is a full-sized court in the quadrangle of the Hindu Hostel. As regards the upkeep of these grounds, which are an invaluable asset of the College, the Principal told us that he was much handicapped by the antiquated rates of pay (dating from 1860) sanctioned for menial servants. It is impossible at the present time in Bankipore to get a decent *mali* for less than Rs. 10 a month; whereas Rs. 6 to 8 are the sanctioned rates. We agree with the Principal that these are starvation wages under present conditions, and urge most strongly that they should be raised to Rs. 8 as a minimum, and Rs. 12 as a maximum. What applies to *malis* applies also to other menial servants, like darwans and chaprasis.

9. There are the following residences attached to the College. Within the College compound (1) the Principal's house; (2) the house intended for the Senior Professor, in an immediately adjoining compound; (3) the two houses at present occupied by Dr. Caldwell and Mr. Horne. Separate family quarters, close to the two hostels, are provided for the Superintendents of the Muhammadan and Hindu hostels.

10. The College is well furnished, most of the furniture being new, solid, and well-designed. A common type of furniture is a bench, seating four students, with desk attached. There are also single desks with seats attached, which can be used when larger desks are inconvenient. The old type of desks and stools are used for College and University Examinations. The latrine accommodation is limited; but is satisfactory, and appears to be adequate.

LIBRARY.

11. The Library is a fairly large and lofty room, well-adapted for the purpose. An enclosure for the Librarian is railed off at one end. In his last annual report the Principal states that the library is rapidly outgrowing the space available, and that the question of further extension will soon require consideration. This question will become more urgent with the opening of classes for post-graduate teaching next July, when it is proposed to strengthen the library, and increase the annual library grant very considerably. The total number of volumes added in 1917-18 was 538, of which 178 (mostly books on Philosophy and Economics) were presented by Mrs. Russell, being a valuable part of the library of the late Mr. Russell.

The following table shows the total number of volumes, and last year's additions, in the different subjects :—

	No. added in 1917-18.	Total No. at 31st Dec. 1918.
1. History and Biography	48	890
2. Economics and Political Philosophy	95	399
3. English Literature.		
Poetry and Drama	37	1290
Essays, Criticisms, etc.	nil.	nil.
Fiction	nil.	nil.
Education	nil.	nil.
Grammar	nil.	nil.
4. Philosophy	121	519
5. Mathematics	16	440
6. Physics	9	276
7. Chemistry	10	197
8. Sanskrit	7	453
9. Arabic, Persian, etc.	24	370
10. Hindi	5	111
11. Bengali	2	116
12. Reference Works	45	326
13. Travels and Geography	9	163
14. Fine Arts	nil.	28
15. Miscellaneous Sciences	nil.	222
16. Books of General Interest	9	9
17. Periodicals, Govt. Publications, etc.	101	5800
TOTAL	538	11,609

The annual library grant, formerly Rs. 1,000, has been raised this year to Rs. 1,500. In addition to the grant of Rs. 1,000 spent on the Library in 1917-18, Rs. 350 was spent out of University Lecture fees on books for the History Department, and Rs. 200 on books for the Economics Department. The present catalogue (printed in 1911) is now out of date. It is proposed to prepare a new one immediately on the Dewey (decimal) system. There is a card-index catalogue, which is kept up to date. Good use is made of the library by students, as the following table indicates.

	No. of books issued (1917-18).
Fourth year	561
Third year	1043
Second year	753
First year	1103 (Nov. to April).

12. Below is given a list of the journals and other periodicals obtained for the Arts Section of the Library. Rs. 1,000 is allotted for this purpose out of the grant for contract contingencies.

List of Periodicals for Arts Section.

MATHEMATICS.

1. Proceedings, London Mathematical Society.
2. Quarterly Journal of Mathematics.

HISTORY.

1. English Historical Review.
2. Indian Antiquary.
3. Epigraphica Indica.
4. Hellenic Studies.
5. Royal Asiatic Society's Journal.
6. Royal Historical Society's Transactions.
7. Bihar and Orissa Research Society's Journal.
8. Bengal, Past and Present.

ECONOMICS.

1. Economics Journal.
2. Political Science Quarterly.

3. Royal Statistical Society's Journal.
4. Indian Journal of Economics.
5. Bengal Economic Journal.
6. Bengal, B. and O. Co-operative Journal.

SANSKRIT.

1. Vidyalay.
2. Indian Thought.
3. Choukhamba Sanskrit Series.
4. Pandit.
5. Srimad Bhagabatam.

GENERAL REFERENCE.

1. Journal of the Bombay Natural Historical Society.
2. Journal of Indian Art and Industry.

No philosophical journals appear in this list; and we recommend that the following be obtained :—

- Mind.
International Journal of Ethics.
British Journal of Psychology.
American Journal of Psychology.

We recommend, further, that one or two good literary journals (e.g. the Times Literary Supplement and the Bookman) be procured; also the Journals of the Asiatic Society of Bengal and of Bombay.

TEACHING STAFF.

13. During the period from the beginning of the session 1917–18 up to the date of inspection there were three additions to the staff, one (of a Computer in the Physical Laboratory) being temporary, and the other two permanent—viz. that of a whole-time Drill Instructor, and of an Instrument Keeper in the Physical Laboratory. There were numerous changes in the staff during the same period, which are recorded below.

Mr. V. H. Jackson was confirmed as Principal in the place of Mr. Charles Russell, who was killed in Palestine on November 22nd, 1917, while fighting as a Temporary Captain in the Indian Army Reserve. The post of Professor of Physics in the Indian Educational Service, previously held by Mr. Jackson, has not yet been filled. Prof. A. T. Mukherji has been officiating in the I.E.S. in this post; and Prof. K. N. Banerji has been officiating in his place in the P.E.S.

Mr. W. Owston Smith, Professor of History, in the Indian Educational Service, left the College to take up an appointment in Indore in December 1917. The post remained unfilled for ten months. Mr. H. R. Batheja, who was appointed in his place, joined the staff on November 6th, 1918.

Mr. J. Andrew-Smith, Professor of English in the Indian Educational Service (temporary), left the College to take up an appointment elsewhere, at the end of last session. No one has yet been appointed in his place.

The services of two senior members of the staff in the Provincial Educational Service (Babu Jadunath Sarkar, Professor of History, and Pandit Ramavatar Sarma, Professor of Sanskrit) have been lent to the Hindu University, Benares. Babu S. C. Sarkar has been officiating in the place of the former; and Pandit J. N. Prasad has been appointed to succeed the latter.

Mr. Jonathan Mahanti joined the staff on July 23rd, 1918, in the place of Babu G. H. Sinha, promoted to be Professor of English.

Mr. W. Rahman, Demonstrator in Physics, left the College in December last to take up an appointment in the Patna University office. His place has not yet been filled.

The following have been appointed to fill temporary vacancies in the staff :—

- Prof. M. Haq, Professor of English.
Babu D. N. Raha, Lecturer in English.
Maulavi S. S. Ahmad, Lecturer in Mathematics.
Babu N. M. Ghosh, Lecturer in Philosophy and Logic.
,, S. M. Datta, Demonstrator in Physics.

The occurrence of so many changes in the personnel of the teaching staff is regrettable, if unavoidable; and the effect of these changes has in a good many cases been aggravated by delay in filling the posts vacated.

The Principal in his Annual Report for 1917-18 remarks: "The Professorship of History (vacated by Mr. W. Owston Smith) has been vacant since December 1917. One post of Lecturer in English has remained vacant throughout the year, while another in Mathematics has been vacant since December 1917. It is to be hoped that these vacancies will be filled up before next session, for they interfere greatly with the ordinary routine of work, and with the proper working of a tutorial system."

COLLEGE CURRICULUM IN ARTS SUBJECTS.

14. Detailed particulars with regard to the weekly curriculum followed in each subject will be found in Appendix III. Lectures are given, attendance at which qualifies for the M.A. degree in History and in Economics. At the time of the inspection there was no University Lecturer in History; the work is being provisionally carried on by Mr. H. R. Batheja. Mr. Batheja is assisted by Professors J. N. Samaddar and S. C. Sarkar. The University Lecturer in Economics is Mr. E. A. Horne. Mr. Horne is assisted by Prof. R. K. Jha. The staff in these two subjects is inadequate. In Economics, fifth and sixth year students are taken together; in History, since they are reading entirely different courses, they are taken separately. Some 5 to 6 lectures are delivered weekly to each set of students, supplemented by tutorial assistance. In the B.A. classes Honours courses are provided in English, Sanskrit, Persian, History, and Mathematics; and there is an arrangement by which students of the local B. N. College are permitted to read for Honours in any of these subjects at Patna College. As a rule four Honours lectures are given every week in each subject; but no arrangement has yet been made for additional tutorial instruction of Honours students, as required by the Regulations. This should be done. Provision is made at Patna College in the B.A. classes for the following combinations:—

English, Vernacular Composition, a Classical Language, and History *or* Philosophy *or* Mathematics.

English, Vernacular Composition, Economics and History *or* Mathematics.

This permits of 5 out of 10 possible combinations of subjects. In the I.A. classes provision is made for the following:—

English, Vernacular Composition, Logic, Classical Language and History *or* Mathematics.

English, Vernacular Composition, Logic, History, and Mathematics.

Arabic, as well as Persian and Sanskrit, is taught for the I.A., but not at present for the B.A. No Science subject can be taken in the I.A. course. It is proposed to remedy this on the removal of the I.A. classes to the Patna Collegiate School next July, when provision will be made for the teaching of Elementary Physics and Chemistry.

15. The number of periods of college work, according to the combination of subjects taken up is given below for each year. The length of the period is one hour.

Fourth Year.

If the course includes Economics	..	lectures: 15	} 17½ periods.
		tutorials: 2½	
.. .. does not include Economics	..	lectures: 14	} 17 ..
		tutorials: 3	

In English and in Economics five lectures are given every week: in Vernacular Composition one, and in other subjects four. In Economics every student receives half an hour's individual teaching. In other subjects (excepting Vernacular Composition) there is one tutorial period a week. A student reading for Honours has four extra lectures a week.

Third Year.

If the course includes Economics and Mathematics ..	lectures : 14	} 16½ periods.
	tutorials : 2½	
„ „ „ Economics but not Mathematics ..	lectures : 14	} 17½ „
	tutorials : 3½	
„ „ „ neither Economics nor Mathematics	lectures : 14	} 18½ „
	tutorials : 4½	

Four lectures are given weekly in every subject but Vernacular Composition, in which subject one lecture only is delivered. In Economics every student gets half an hour's individual teaching; in English he has two tutorial periods, and in other subjects (excepting the vernacular and Mathematics) one. Honours students in each subject attend four additional lectures every week.

Second Year.

For all students	lectures : 19	} 24 periods.
	tutorials : 5	

This is a somewhat heavy time-table. In Vernacular Composition one lecture weekly is delivered. In other subjects there are six lectures, in English but four ordinarily, with two tutorial periods in English and one tutorial period in the remaining subjects, excepting Arabic.

First Year.

If the course includes Sanskrit	lectures : 17	} 21½ periods.
	tutorials : 4½	
„ „ „ does not include Sanskrit ..	lectures : 18	} 22½ „
	tutorials : 4½	

In Vernacular Composition one lecture is delivered weekly. In other subjects four lectures are ordinarily given, but five lectures are given in English and three in Sanskrit. In Logic students receive an hour's tutorial instruction once a fortnight, which is insufficient. In English there are two tutorial periods a week; in Sanskrit, Persian, History, and Mathematics one tutorial period. There is no special tutorial instruction in Arabic.

16. A comparison of the present time-table with that in force at the date of the last inspection of the college is given below. At that time the usual number of Honours lectures in each subject was three; now it is four. As regards tutorial work at least one hour's tutorial instruction was given then, as now, in all subjects but vernacular composition; and in some cases two and even three periods a week were devoted to tutorial work.

	July 1914.	July 1918.
Fourth Year ..	17 to 17½ periods	17 or 17½ periods.
Third „ ..	17½ to 21 „	16½ to 18 „
Second „ ..	22 to 25 „	24 „
First „ ..	23 to 25 „	21½ or 22½ „

17. Teaching work is distributed amongst the various members of the staff as under:—

Subject.	Name of Teacher.	No. of lectures.	No. of tutorial periods.	Total.
English ..	Prof. J. C. Banerji	9	6	15
	„ N. Niyogi (a)	2	0	2
	„ G. H. Sinha	11	6	17
	„ M. Haq	0	16	16
	Mr. J. Mahanti	2	17	19
	Babu D. N. Raha	5	15	20

(a) In addition to these two Honours lectures, he has ten lectures and five tutorial periods with the I.Sc. classes.

Subject.	Name of Teacher.	No. of lectures.	No. of tutorial periods.	Total.
Sanskrit ..	Prof. J. N. Prasad ..	12	4	16
	Pandit D. D. Tripathi ..	7	9	16
	„ A. Misra (b) ..	4	9	13
Persian and Arabic.	Prof. M. Yasin (c) ..	9	5	14
	Maulavi A. N. M. A. Hasan. (d) ..	9	8	17
	„ A. Husain (e) ..	10	7	17
History ..	Prof. H. R. Batheja ..	14	3	17
	„ J. N. Samaddar ..	8	10	18
	„ S. C. Sarkar ..	12	6	18
Mathematics ..	Prof. A. T. Chatterji ..	13	4	17
	Babu P. N. Das Gupta ..	10	8	18
Philosophy and Logic.	Prof. C. C. Sinha ..	10	9	19
	Babu N. M. Ghosh ..	6	11	17
Economics ..	Prof. E. A. Horne ..	10-11	6 (average).	16-17
	„ R. K. Jha ..	4	9 (average).	13

(b) Delivers, in addition, four lectures on Vernacular Composition (Hindi).

(c) „ „ „ two „ „ „ „ (Urdu),

(d) „ „ „ one lecture „ „ „ „

(e) „ „ „ one „ „ „ „

18. The staff is numerically adequate for the work which it has to do, except in the case of Logic and Mathematics, in which subject it is not possible to provide fully for tutorial instruction with the present staff. We consider it most desirable that the Principal should take some part in teaching work, as he does at other colleges; and there should be some devolution of his routine duties, if necessary, to make this possible. We observe that no provision is made for lectures on vernacular composition in Bengali. This should be done, as there is a considerable number of Bengali students.

19. In a Supplementary Note on the subject some particulars are given of the methods of tutorial work.

NUMERICAL STRENGTH.

20. The average monthly number on the rolls, and the average daily attendance, during the last two years are shewn below :—

	Average Monthly No.	Average Daily Attendance.
1916-17	405	359
1917-18	437	397

The following table, which shows the number of candidates sent up for the University Examinations at different periods, gives some indication of the growth in numbers :—

	1905-07 Average No.	1913-17 Average No.	1918.
F.A. (old)	57	..	..
B.A. (old)	45	..	..
I.A. .. .. .	..	75	81
I.Sc. .. .. .	..	27	38
B.A. .. .. .	..	58	50
B.Sc. .. .. .	..	12	23
TOTAL	102	172	192

RESULTS IN UNIVERSITY EXAMINATIONS.

21. A full analysis of the results in each subject at the I.A. and B.A. Examinations conducted by the Patna University in 1918, and at the same examinations conducted by the Calcutta University in 1917, is contained

in Appendix 4. The percentages of passes in the I.A. and B.A. Examinations amongst candidates from this College, together with the corresponding percentages for candidates from Bihar and Orissa as a whole, during the last five years are as follows :—

			I.A.	B.A.
1914	..	..	50·6 (33·2)	42 (40·8)
1915	..	..	64·1 (47·2)	77·4 (54·4)
1916	..	..	55·1 (46·3)	76·5 (52·9)
1917	..	..	56·3 (41·07)	67·9 (47·2)
1918	..	..	65·4 (50·7)	62 (42·2)

STATE OF DISCIPLINE.

22. There have been five entries in the “Black Book” this year, and last session there were seven. In his last Annual Report the Principal writes: “The general health and discipline of the students has been on the whole quite satisfactory throughout the year. In more than one instance, when punishments have been considered necessary, the fathers of students have expressed their approval.”

COLLEGIATE LIFE.

23. One of the unique features of collegiate life at Patna College is that it is compulsory for all students, except those specially exempted on medical or other grounds, to take part in drill and games. Last year a whole-time Drill Instructor was added to the staff, and his services are utilised as follows:—From 6 to 7 a.m. (in winter 6·30 to 7·30 a.m.) he takes batches of hostel students for drill and gymnastics. Day students he takes from 2·30 to 3·30, and from 5 to 6 in the afternoon. He also supervises the work of the College *malis*, and the *malis* employed by the Athletic Club. All students (excepting those who live at a prohibitive distance from the College) play either football or hockey twice a week. There is a General Team, consisting of the better players, which has four practice games a week besides matches. The General Captain and class captains take the attendance, and conduct the games; in the case of the first year games, supervisors are deputed from the General Team for this purpose. A fine of two annas is imposed for absence from games or drill without proper excuse. The games are under the general supervision of Mr. Horne and Prof. G. H. Sinha, respectively President and Vice-President of the Athletic Club, by whom also exemptions are granted. There is a representative committee for the management of athletic affairs, and of expenditure out of athletic funds. There is also a Committee on which both students and staff are represented, whose business it is to administer the New Fund (*see* paragraph 5 above), and the Government grant of Rs. 300 for the upkeep of the Common Room. The College Societies affiliated to the Central Committee, and a record of their activities during the session 1917–1918, are as follows:—

	Ordinary Meetings.	Extraordinary Meetings.	No. of Excursions.
Archaeological Society ..	8	2	6
Chanakya Society ..	7	—	5
Debating Society ..	11	6	—

These societies receive grants from the New Fund to enable them to make excursions and to carry on their work. This year a special grant of Rs. 300 for excursions to places of historical and other interest has been made by the Director of Public Instruction. Below is given a list of the periodicals placed in the Students' Common Room. There is also a small library which contains bound volumes of magazines, and to which English books of a popular kind, to the value of Rs. 50, are added annually. The *College Magazine* appears three times a year.

1. Statesman.
2. Times Weekly Edition.
3. Times Educational Supplement.

4. Journal of Education.
5. The Weekly Times of India (Illustrated).
6. The Illustrated London News.
7. The Near East,
8. Strand Magazine.
9. East and West.
10. Contemporary Review.
11. Nineteenth Century and After.
12. Hindustan Review.
13. Bharathi (Bengali).
14. Sri Lakshmi (Hindi).
15. Grihastha (Bengali).

The opening of the Common Room for two hours in the evening, and the opening of the gymnasium at the same time, afford students facilities after college hours for recreation and social intercourse. The meetings of the various societies are held during this time in the evening in the Common Room.

RESIDENCE OF STUDENTS.

24. Out of 498 students on the rolls at the date of inspection, 143 were boarders in the Muhammadan and Hindu hostels; 88 were living in various Government messes; 54 were living with their parents and 213 with recognized guardians. The Government messes are under the general supervision of a special officer in the Education Department—the Inspector of Students' Residences. Three members of the College staff—viz. Babu P. N. Das Gupta, Babu D. N. Raha, and Maulvi A. Hasan—are at present acting as Superintendents of Government messes, intended principally for Patna College students, and receive allowances of Rs. 45, Rs. 30 and Rs. 20, respectively. The College, however, has no direct responsibility for the management of these messes. As regards students living with parents or recognized guardians two Students' Residence Committees have been formed of members of the College staff, by whom enquiry is made at the beginning of every session into the conditions under which students are living. The Committee dealing with Muhammadan students consists of: Professor Md. Yasin, Mr. W. Rahman, Maulvi A. N. Ali Hasan, and Maulvi A. Hasan. The members of this Committee make joint visits as a rule, and submit a detailed report on which action can be taken, both as regards the residence of students, and as regards the granting of Mohsin aid. The Committee dealing with Hindu students consists of: Professors J. N. Samaddar and R. Sarma, Pandit D. D. Tripathi, and Babu Kesho Dayal. They divide the work amongst themselves; but in doubtful cases the home of the student is visited a second time by Professor Samaddar. When the conditions of residence are found to be unsatisfactory, the student is compelled to change his guardian, or to join the College Hostel or a Government mess.

25. The Minto Hindu Hostel, of which Mr. Horne is Warden, and Professor A. T. Mukherji (with a monthly allowance of Rs. 75) is Resident Superintendent, provides accommodation for 92 students, 44 being accommodated in single-seated rooms, and 48 in four-seated rooms. Certain recently added out-houses have been used, as a temporary measure, to accommodate nine students in small but decent single-seated rooms. The actual number of students on the rolls at the date of inspection was 97. The Muhammadan Hostel, of which Dr. Caldwell is Warden, and Professor Md. Yasin (with an allowance of Rs. 60) is Resident Superintendent, provides accommodation for 48 boarders, 24 being accommodated in single-seated rooms and 24 in four-seated rooms. The number on the rolls at the date of inspection was 46, all being Muhammadans. This is an improvement on last year, when there were only 36 Muhammadan boarders; and one wing, accommodating 12 boarders, was put at the disposal of Hindu students—by no means a satisfactory arrangement. There is also accommodation for an Assistant Superintendent. The Assistant Superintendent, until lately, was Mr. W. Rahman; and he has been succeeded by Maulvi A. N. M. Ali Hasan (with an allowance of Rs. 20). The system of administration, and

the charges made, in the two hostels are the same; and this year have been put on a new basis. The charges for seat-rent are payable in the College office in two instalments, and are paid into the Treasury. In addition to seat-rent students pay monthly maintenance fees, collected by the Superintendents, and deposited in Post Office Savings Bank accounts in the name of the Wardens. Every boarder, on admission deposits a caution-fee of Rs. 5, which is paid into a separate Post Office account. Out of the income from maintenance fees the hostel authorities meet the cost of hostel servants and of lighting. The arrangements for lighting and servants appear to be excellent; and there is likely to be a small balance in Hostel Funds, which can be utilized for improvements in furniture, and in other directions. The furniture supplied to boarders consists, as a rule, of chauki, table, chair, small bookshelf, and clothes pegs. The charge for furniture and for medical attendance is included in the charges specified below. The doctor visits the hostel every morning; and a room is provided for his use in the Muhammadan Hostel.

	Rent.		Maintenance fee.	
	Per month.	Per annum.	Per month.	Per annum.
	Rs.	Rs.	Rs.	Rs.
Single-seated room (1st floor) ..	1/8	15/-	3/-	30/-
Do. (ground floor) ..	1/4	12/8	3/-	30/-
Seat in four-seated room	1/-	10/-	2/-	20/-

In the Hindu Hostel there are six messes, each containing on an average 16 or 17 members. The average monthly expenses per head amount to about Rs. 9; and generally students spend another Rs. 3 in providing themselves with light refreshments. In the Muhammadan Hostel there is one mess divided into two sections. An admission fee of Re. 1 (raised this year to Rs. 1-8) is charged to cover the cost of utensils, crockery, etc. The average monthly expenses per head amounted last year to a little over Rs. 7; and boarders usually spend another Rs. 3 a month on *nashtha*. The Superintendent is treasurer of the mess. The latrine accommodation is satisfactory and adequate. The provision of bath-rooms for boarders in the Muhammadan Hostel is badly needed. At present, there is only one bath-room for 48 boarders. Plans have been prepared for subdividing two rooms, and so providing eight bathing compartments; but some better arrangement than this should be possible. Another desirable improvement in this hostel is the provision of a Dining Hall, in which all boarders can take their meals together. This can be done by converting the two dining rooms used at present into one, and somewhat enlarging them. A fair-sized room is set apart at the Muhammadan Hostel as a prayer-room. At the Hindu Hostel a prayer-shed, measuring 36' x 20', is nearing completion. This is a building of attractive appearance, situated close to the well, and intended for the use of the boarders for performing their morning prayers, and for other occasions of a religious character. One interesting feature of the hostel administration is the record which is kept for each boarder, not only of his progress in class and of his general behaviour, but also of his public spirit, proficiency in games, height, weight and chest measurement. Particulars as to the last three items are supplied by the Drill Instructor three times a year. On the basis of this record a progress report is submitted annually through the Principal to the boarder's guardian. The various books and registers were inspected and found to be kept in proper form. We note that, while the hostels do not possess common-rooms of their own, the boarders have access to the College Common Room and Gymnasium close by. In the Hindu Hostel there is an active and flourishing Essay Club, which holds weekly meetings, issues once a term a manuscript magazine, and organizes every term an athletic competition between the different wards, in which all boarders are required to take part. A subscription is realized from every boarders amounting to one anna per month; and the Superintendent is treasurer of this fund.

28. APPARATUS.

Condition of Apparatus in Store Room ..	..	Fair.
Condition of Students' Apparatus ..	..	Fair.

29. DIMENSIONS OF ROOMS.

				ft.
Professors' Room ..	..	..	..	25 × 20
with a bath room ..	..	..	..	10 × 8
Physical Chem. Room ..	..	..	..	25 × 20
Combustion Room ..	..	..	..	20 × 20
Honours Laboratory ..	..	..	..	25 × 20
Applied Chemistry ..	..	..	..	25 × 20
Library and Lecture Apparatus Room ..	..	..	..	35 × 18
Preparation Room ..	..	..	..	35 × 18
Lecture Theatre ..	..	..	..	35 × 30
Store Office ..	..	..	..	20 × 20
Store Room Apparatus, Inner ..	..	..	..	17 × 25
" " " Outer ..	..	..	..	8 × 25
Store Room Chemicals, Inner ..	..	..	..	17 × 25
" " " Outer ..	..	..	..	8 × 25
Balance Rooms, I.Sc. ..	..	..	..	20 × 15
" " " B.Sc. ..	..	..	..	20 × 15
Laboratories, I.Sc. ..	..	..	..	45 × 35
" " " B.Sc. ..	..	..	..	45 × 35
Workshop ..	..	..	..	20 × 15
Godown ..	..	..	..	22 × 8
Bath Room ..	..	..	..	7 × 6
TOTAL AREA ..				10,708 sq. ft.

Total length of seats in Theatre ..	119 ft. allowing 1 ft. 6 in. per student, accommodating 79 students.
Total length of benches in Laboratories ..	{ I.Sc. Laboratory 180 ft. B.Sc. " 180 ft. B.Sc. Hons. " 56 ft.

In the I.Sc. Laboratory there are nine working benches, one general table and a Demonstrator's table. Each working bench contains four cupboards on each side with a total of 72 in all. This gives accommodation for 36 first year and 30 second year students; but by altering the design, it would be possible to arrange for six cup-boards on each side making a total of 108, and accommodation for 54 students in each year. This change is now being made. The B.Sc. Laboratory contains nine working benches, each 10 ft. long, with a general table and a Demonstrator's table. Each working bench contains three cupboards on each side, making a total of 54 in all, giving accommodation for 27 third year and 27 fourth year students.

B.Sc. Honours. Accommodation for four students in each year.

Number of students ..	{ First year ..	..	49
	{ Second year ..	..	58
	{ Third year ..	..	29
	{ Fourth year ..	..	29
Number of batches ..	{ I.Sc. two batches in each year.		
	{ B.Sc. one batch in each year.		

30. GENERAL ARRANGEMENT OF WORK.

No. of Lecturers ..	I.Sc. ..	B.Sc. ..	Hons. ..	5
No. of Lectures per week ..	{ 1st year—4	3rd year—4	3rd year—3	
	{ 2nd year—4	4th year—5	4th year—3	
No. of periods practical, etc., per week.	{ 1st year—2	3rd year—4	3rd year—4	
	{ 2nd year—2	4th year—4	4th year—4	

31. LIST OF CHEMICAL JOURNALS.

1. Liebig's Annalen der Chemie. Vols 1 to 392, and 401 to 405. 1839 to June 1913.
 2. Zeitschrift fur Physikalische Chemie. Vols. 1 to 91. 1887 to 1915.
 3. Berichte der Deutschen Chemischen Gesellschaften Vols. 3 to 47. 1870 to 1913.
 4. Jahrbuch der Chemie. Vols. 1 to 23. 1891 to 1913.
 5. Bulletin de la Soc. Chim. de Paris. Nos. 3, 4, 5, 1861 to 63; new series 1 to 50, 1864 to 1888; third series 1 to 26, 1889 to 1901; with Répertoire de Chimique Pure, 1859 to 1862; Applied, 1858 to 1863.
 6. The Analyst. Vols. 3 to 42. 1874 to 1917.
 7. The Chemical News. Vols. 109 to 116, 1914 to 1917.
 8. Journal of the Chem. Soc. of London. Vols. 55 to 112, 1889 to 1917.
 9. The Journal of the Soc. of Chem. Industry. Vols. 1 to 36, 1882 to 1917.
 10. The Journal of Phys. Chemistry. Vols. 18 to 21, 1914 to 1917.
 11. The Journal of the American Chem. Society. Vol. 36, 1914 to 1917.
 12. Pharmaceutical Journal and Transactions. Vols. 1 to 66, 1481 to 1841; Vols. 91 to 99, 1914 to 1917.
 13. Science Progress. Nos. 28 to 46, 1914 to 1917.
 14. Annual Reports on the Progress of Chemistry. Vols. 11 to 14, 1914 to 1917.
 15. Transactions of the American Electro-Chemical Society. Vols. 25 to 31, 1914 to 1917.
 16. Transactions of the Faraday Society. Vols. 1 to 13, 1905 to 1917.
 17. Applied Chemistry Reports. Vol. 1. 1917.
 18. British Association Reports.
 19. Comptes Rendus.
- } Bought out of funds, allotted to both Physics and Chem. Depts.

32. ANNUAL LIBRARY GRANT FOR CHEMISTRY.

Books	..	..	..	..	Rs. 100
Journals	..	..	..	..	Rs. 195

III. PHYSICAL LABORATORY.

33. PHYSICS STAFF.

Name.	Post held.	Academic Qualifications.	Detail of Service.	Other Experience.
Asutosh Mukerji.	Professor of Physics, offg. in I.E.S.	B.A. (Hon. in Math.) 1905, M.A. (Group B), II class, 1908.	P.E.S. (offg. in I.E.S. since 1915). Joined Govt. Service in 1906. Held non-gazetted appointment in the same Laboratory.	Specially trained by Mr. V. H. Jackson in Practical Physics, since 1906. Two papers published with Mr. Jackson, one alone this year.
Kumar Nath Banerji.	Offg. Professor of Physics.	B.Sc. (1910), First in First class Honours in Physics, M.Sc. (1913) First class in Physics. Second in order of merit.	S.E.S. (Offg. in P.E.S.) Joined Patna College in July 1914, in Class IV of the Subordinate Ed. Service.	Was Professor of Physics in the D.A.-V. College, Lahore, for some time. One paper to be published with Mr. V. H. Jackson.
Kesho Dayal	Lecturer - Demonstrator of Physics.	B.Sc., 1911, second class Hon. in Physics. Won Rai Amrito Nath Mitra Bahadur's prize. M.Sc. 1913 (Class II).	S.E.S. From Aug. 1914 to Nov. 1914. Posted at Cuttack. From Dec. 1914 working in Patna College.	Lecturer Demonstrator in Physics at Ravenshaw College, Cuttack.

33. PHYSICS STAFF—*contd.*

Name.	Post held.	Academic Qualifications.	Detail of service.	Other Experience.
Snehamay Dutt.	Lecturer - Demonstrator in Physics.	M.Sc. (1st class, stood 2nd) 1915. B.Sc. (1913) 2nd class Hons. Physics.	S.E.S. Joined Govt. Service on 6th January, 1919.	Woodrow Scholar. Formerly Lect. Demonstrator in Physics T. N. J. College, Bhagalpur, for about 2½ yrs.
Wahidur Rahman.	Lecturer - Demonstrator in Physics.	B.Sc. Cal. Univ. 1910 I.Sc. Lond. Univ.	On deputation to the Patna University Office, the post being vacant now.	....
Suryya Kanta Mitra	Assistant Physical Laboratory.	B.Sc. (1911).	Sub. Ed. Service. Joined Patna College Aug. 1911 as an Asstt. in both the Phys. and Chem. Lab. From 1914 working in Physics side alone.	Contributed one paper on Atmospheric Electricity, jointly with Mr. V. H. Jackson, to the Science Congress, 1915.
Amiya Kumar Kundu.	Instrument-keeper.	B.Sc. 1915. M.Sc. in Mathematics (Mixed) 1917.	Sub. Ed. Service. Joined on 11th May, 1918.	....

Mechanics .. { (1) Raghu Nandan Mistry, head mechanic (Rs. 45—1—50).
(2) Samu Mistry, second mechanic .. (Rs. 25—1—35).

MENIAL STAFF.

	Rs.
Shew Charan, head bearer	10
Bansi, second bearer	8
Fekooah, third ,,	7
Dasarath, fourth ,,	6
Babu Lal (sweeper)	6 half time for Physics.

34. GRANTS.

	Rs.
Annual Grant .. { Apparatus	5,000
{ Contingency	1,500

35. APPARATUS.

Condition of Apparatus in Store rooms	Good.
Condition of Students' Apparatus.. ..	Good.

36. DIMENSIONS OF ROOMS.

	I.Sc. Lab.	B.Sc. Gen. Lab.	Optical Dark room.	Elect. room No. 1.	Elect. room No. 2.	• Elect. room No. 3.
Dimensions of Laboratories. }	45' × 30'	45' × 30'	21¼' × 25'	20' × 25'	25' × 21'	25' × 21'
Dimensions of Lecture Theatre	I.Sc. semi-circle on diameter together with a rectangle			44½'		
" " "	" B.Sc.			12¼' × 44½'		
" " "	room for I.Sc. Mathematics			25' × 20'		
" " "	" " " English			30' × 20'		

Dimensions of Lecture Preparation rooms	..	..	25' × 20'
" " " Workshop and Dynamo Room	..	..	32½' × 14'
" " " Battery Room	..	..	10½' × 14'
" " " Store rooms	25' × 10½' + 38' × 10' + 25' × 10½'		+ 15' × 13½'
" " " Library for Staff	..	..	15' × 13½'
" " " Photographic Dark Room	..	..	7' × 8½'
Staff Laboratories { Professors' Room	..	..	25' × 22'
{ Research Room	..	..	25' × 20'

Seating accommodation in Theatre. . . { 190 ft. running length of the benches in the I.Sc. Theatre.
30 single-seated desks occupying 75 ft. running lengths in the B.Sc. Lecture room.

	I.Sc. Lab.	B.Sc. Gen. Lab.	Dark room for Optics.	Elect. room No. 1.	Elect. room No. 2.	Elect. room No. 3.
Total length of working benches in Laboratories. }	113 ft.	104 ft.	55 ft.	33 ft.	44 ft.	50 ft.

Total area of rooms excluding verandahs and lecture rooms in I.Sc. Mathematics and English=10,392 sq. ft.

	1st Year Class.	2nd Year Class.	3rd Year Class.	4th Year Class.
Number of students	..	.. 49	58	29
" " batches	..	.. 1	1	1

37. GENERAL ARRANGEMENT OF WORK.

Number of Lecturers	..	..	..	..	..	{ Four at present. One vacant.
	I.Sc.		B.Sc.		Hons.	
	I.	II.	III.	IV.	III.	IV.
Number of Lectures per week	4	5	5	4	3	2
" " Periods Practical, etc. per week.	2 hrs. in 1 day.	4 hrs. in 2 days.	5 hrs. in 2 days.	5 hrs. in 2 days.	2 hrs. in 1 day.	2 hrs. in 1 day.

38. PRACTICAL PHYSICS.

(APPARATUS USED FOR PRACTICAL WORK.)

INTERMEDIATE SCIENCE.

Class of 50 students in a batch.

(1) Measurement of lengths (one-metre and half-metre scales, wooden spheres, blocks, etc., Baird and Tatlock and local), 12 sets	..	..	..	..	Rs. 35
(2) Drawing vernier scales.....(Drawing Boards and good dividers, local and Baird and Tatlock), 12 sets	..	..	..	..	50
(3) Reading models of vernier scales, Linear and Angular (12 sets each.....local)	..	..	..	..	60
(4) Areas of circles, ellipses, etc.	..	..	..	..	..
(5) Calipers .....(Baird and Tatlock), 12 sets	..	..	..	..	100
(6) Screw-gauges.....(Baird and Tatlock), 12 sets	..	..	..	..	100
(7) Spherometers with glass plate..(W. G. Pye), 12 sets	..	..	..	..	100
(8) Friction apparatus and Inclined plane (Cusson's pattern. Pre-war cost at Rs. 60, made in Laboratory shop at about Rs. 30) each....12....	..	..	..	..	400
(9) Simple pendulum....(local), 12....	..	..	..	..	50
(10) Stop watches (best Swis).....(Baird and Tatlock), 12	..	..	..	..	500
(11) Balances (Becker) Agate planes and knife-edges. 250 grammes type × 1 milligram, 12	..	..	..	..	600
(12) Weight Boxes (Becker) Tot. 300 gra., 12 boxes	..	..	..	..	100
(13) Do.....one kilo to 1 mlg.....12 boxes	..	..	..	..	200

	Rs.
(14) Specific gravity bottles (Baird and Tatlock).... 24 ..	50
(15) Nicholson's Hydrometers and jars.... 12 sets ..	70
(16) Hare's apparatus (local), 12 sets ..	50
(17) Boyle's Law apparatus (local), 6 sets ..	100
(18) Fixed points of Thermometers (local), 6 sets ..	50
(19) Thermometers (Baird and Tatlock), 2 doz. ..	100
(20) Calorimeters (local).... 12.. ..	24
(21) Coefficient of Linear Expansion (Pullinjer's apparatus.. local), 12	100
(22) Photometers (local), 3 sets ..	50
(23) Law of Reflection (local), 12 sets ..	10
(24) Rectangular blocks of glass for refraction experiments (Philip Harris), 18	30
(25) Large Prisms (Philip Harris), 18	30
(26) Concave and convex mirrors, 6 each ..	100
(27) Convex lenses, 12 ..	10
(28) Concave lenses, 6 ..	5
(29) Pairs of magnets (Baird and Tatlock), 12 ..	50
(30) Compass needles (best quality) (Baird and Tatlock or Becker), 12	50
(31) Post Office Boxes, 6 ..	600
(32) Portable Moving coil pivoted galvanometers, 6 ..	300
General laboratory goods like clamps, stands, burners, rubber tubes, corks, squared paper, pins, etc. ..	500
TOTAL ..	4,573
Say Rs.	5,000

B.Sc.

Class of 30 students in a batch.

(1) Travelling Microscopes (Camb. Inst. Co.; Becker), 10 ..	1,000
(2) Kater's Pendulum (Cusson's), 2 ..	100
(3) Mohr's Balances (Becker), 4 ..	400
(4) Balances, 2 at Rs. 300, 6 at Rs. 50 (Bunge; Becker) ..	600
(5) Weight, boxes, 2 at Rs. 100, 12 at Rs. 8, 6 at Rs. 16 (Bunge; Becker) ..	400
(6) Boyle's Law apparatus (local except glass), 4 ..	200
(7) Moments of Inertia (Camb. Inst. Co.) ..	100
(8) Young's modulus (Camb. Inst. Co.) ..	50
(9) Energy of wheel (Cusson's), 1 ..	300
(10) Vertical Reading Microscopes (Leitz), 3 ..	300
(11) Glass sinkers for liquid density (Baird and Tatlock) 1 doz. ..	10
(12) Weight Thermometers (Baird and Tatlock); 2 doz. ..	10
(13) Dulong and Petits' apparatus (Gallenkamp), 2 ..	150
(14) Coefficient of expansion of gases at constant volume (Gallen- kamp), 4 ..	200
(15) Coefficient of expansion of gases at constant pressure (Gallen- kamp), 4 ..	200
(16) Calorimeters (Regnault's apparatus) (local), 10 ..	500
(17) Joule's calorimeters (local), 3 ..	50
(18) Thermometers	
0° - 100° C by 1°, 2 doz. ..	50
0° - 50° C by $\frac{1}{5}$ °, 2 doz. ..	150
0° - 50° C by $\frac{1}{10}$ °, 1 doz. ..	100
(Baird and Tatlock)	
(19) Victor Meyer's apparatus (Gallenkamp or Baird and Tatlock), 6	300
(20) Hoffmann's apparatus (Gallenkamp or Baird and Tatlock), 6..	300
(21) Duma's apparatus (Baird and Tatlock), 6 ..	200
(22) Duma's Bulbs (Baird and Tatlock), 2 doz. ..	20
(23) Daniell's Hygrometer (Baird and Tatlock), 2 ..	50
(24) Dine's Hygrometer (Baird and Tatlock), 2 ..	50
(25) Regnault's Hygrometer (Baird and Tatlock), 2 ..	100
(26) Photometers .. ((Lummer Brodhun) (Max Kohl)..	100
(27) Concave and convex mirrors (Max Kohl), 12 ..	400
(28) Optical bench (local) ..	200

	Rs.
(29) Lenses (Baird and Tatlock)	50
(30) Telescopes, Reading, short range, Theodolites (Hartmann Braun, Camb. Inst. Co.)	1,000
(31) Spectrometers (Philip Harris), 5	1,500
Spectrum tubes (Baird and Tatlock)	60
(32) Prisms (Baird and Tatlock), 6	300
(33) Liquid Prisms (Max Kohl), 3	300
(34) Diffraction gratings (Philip Harris), 2	200
(35) Spectroscope (Adam Hilger)	600
(36) Good optical bench and accessories (Camb. Inst. Co. or Ph. Pellin)	2,000
(37) Magnetometers, Deflection and Vibration (local), 6 sets	300
(38) Mirror Magnetometer (Camb. Inst. Co.)	200
(39) Dip needle . . . (ordinary), 2	200
(40) Dip needle (Kew Pattern) (Camb. Inst. Co.), 1	500
(41) Tangent Galvanometers (Camb. Inst. Co.), 4	800
(42) Metre Bridges (Griffin or local), 4	200
(43) Post Office Boxes (R. W. Paul), 24	4,800
(44) Mirror Galvanometers (R. W. Paul or H. Tinsley), 24	2,400
(45) Lamp and Scale sets (R. W. Paul), 20 sets @ 50	1,000
(46) Standards of Resistances: H. Tinsley	
1000 Ohms, 2	200
100 Ohms, 2	200
One Ohm, 2	200
0.1 Ohm, 2	200
Manganin Megohm, 1	300
(47) Standard Cadmium cells, H. Tinsley	500
(48) Standard condensers:—H. Tinsley	
One mikrofaraad (subdivided), 2	400
1.11 mikrofaraad (Tinsley), 1	500
(49) Voltmeters	
Copper (local)	50
Silver (Max Kohl)	50
Gas (Max Kohl)	60
(50) Potentiometers	
Stretched wire (W. G. Pye), 2	160
Tinsley's students'	300
Tinsley's standard	1,000
(51) Liquid Resistances (H. Tinsley) (Kohlraush's pattern) Bridge	300
(52) Ballistic Galvanometer (H. Tinsley)	300
(53) Long solenoid and secondary coil (local)	200
(54) Quadrant Electrometer (Camb. Inst. Co.), 2 @ 200	400
Accessories for ditto, 2 sets	400
(55) Gerdien sliding condenser (Spindler, Höyer & Göttingen), 2	200
(56) Portable accumulators, single cells, 90 ampere hour capacity (Philip Harris)	1,000
(57) Le clanché cells (Philip Harris), 2 dozs.	50
(58) Keys, commutators, etc. (Local or Nalder Bros.)	1,000
(59) Callendar's apparatus for determining the mechanical equiva- lent of heat (Camb. Inst. Co.), 1	300
(60) Millivoltmeters and Shunts (R. W. Paul), 6	1,200
(61) Sodium burners (Max Kohl), 6	300
(62) Volt ratio box (H. Tinsley), 1	100
(63) Standard Barometer (Negretti Zembra or Hicks), 2	400
(64) General apparatus—Stands, glass goods, burners, rubber tubes, etc.	2,000
TOTAL	35,270

39. LIST OF PHYSICS PERIODICALS.

Name of Serial in full.	Volumes.	Dates.
Jahrbuch der Radioaktivität und Elektrotonik (1904-1913).	1-10	1905-1913.
Ditto ditto ..	11 (up to 2nd heft)	May 1914.
Le Radium, la Radioactivité, Radiations, l'Ionisation.	1-10	Jan. 1904-Dec. 1913.
Journal de Physique théorique et expérimentale.	11	Jan.-June 1914.
The American Journal of Science and Arts ..	1-50 (LI-C)	May 1846-Nov. 1870.
Ditto ditto ..	1-18 (CI-CXVIII)	1871-1879.
Contd. as The American Journal of Science ..	19-50 (CXIX-CL)	1880-1895.
Ditto ditto ..	(CLI-)	1896-
The Astrophysical Journal. An International Review of Spectroscopy and Astronomical Physics.	Index to Vols. XXXI-XL. 1-30	1895-1909.
Ditto ditto ..	31-	1910-
Journal de Physique théorique et appliquée, fondé par d'Almeida.	1-10	1872-1881.
Ditto ditto ..	1-10	1882-1891.
Ditto ditto ..	1-10	1892-1901.
Ditto ditto ..	1-9	1902-1910.
Ditto ditto ..	1-2	1911-1912.
Index to above volumes ..	....	1872-1901.
Comptes Rendus hebdomadaires des Séances de l'Académie des Sciences ..	1	1835.
.. ..	2-155	1836-1912.
Two supplementary volumes ..	....	1856-1861.
Tables Générales, 4 volumes ..	1-121	1835-1895.
Physikalische Zeitschrift ..	1-14	1899-1900 to 1913.
Ditto ..	15	1 Jan. to 15th July, 1914.
Report of the British Association for the Advancement of Science (1866, Nottingham).	86	1867-
Proceedings of the British Meteorological Society.	1-5	1861-1871.
Quarterly Journal of the Meteorological Society	1-9	1871-1883.
Quarterly Journal of the Royal Meteorological Society.	10-	1884-
Science Abstracts (Physics and Electrical Engineering).	1-5	1898-1902.
Science Abstracts: Section A, Physics ..	6-	1903-
Terrestrial Magnetism and Atmospheric Electricity.	1-	1896.
Nature: A weekly illustrated Journal of Science	1-	1869-70 to
The Philosophical Magazine and Journal of Science.	1-50	1876-1900.
Ditto ditto ..	1-	1901-
The Physical Review. A Journal of Experimental and Theoretical Physics.	1-35	1894-1912.
Ditto ditto ..	1-	1913-
The National Physical Laboratory, Collected Researches.	2-12	1904-1915.
Journal of the Society of Telegraph Engineers including communications on Telegraphy and Electrical Science).	1	1872-1873.
Ditto ditto ..	2-9	1873-1880.
Contd. as Journal of the Society of Telegraph Engineers and of Electricians.	10-17	1881-1888.
Journal of the Institution of Electrical Engineers.	18-45	1889-1910.
Index to above volumes ..	1-30	1872-1901 (in 3 parts).

LIST OF PHYSICS PERIODICALS—*contd.*

Name of Serial in full.	Volumes.	Dates.
Philosophical Transactions of the Royal Society of London.	160-177	1880-1886-7.
Ditto ditto ..	178-	1888.
Ditto ditto ..	178-201	1888-1910.
Extra volume 	168-	1874-1875.
Proceedings of the Royal Society of London ..	15-75	1867-1905.
Ditto ditto ..	76-	1905.
Ditto ditto ..	76-82	1905-1910
Index to above volumes ..	1-75	1800-1905.
Proceedings of the Physical Society of London	1-	1874.
Abstracts of the Physical Society of London	1-3	1895-1897.
Memoirs of the Physical Society of London ..	1 vol.	.....
Proceedings of the Royal Institution ..	1-19	1851/54-1908/10.
Ditto Society of Edinburgh	9-27	1878-1907.
(Nov. 1875-July 1907).		
Proceedings of the Royal Society of Edinburgh (Nov. 1913).	34-	1914-
Transactions of the Royal Society of Edinburgh (1913-14).	49 Pt. 4th	1914-
Ditto ditto ..	50-	1914-
Proceedings of the Cambridge Philosophical Society (1843-63 to—).	1-	1866-
Transactions of the Cambridge Philosophical Society (Ap. 1914—).	22-	1914-
(No. 4—)		
Annalen der Physik und Chemie .. ..	.....	.....
(Wiedemanns) 	3-69	1878-1899.
Annalen der Physik	1-42	1900-1913.
Ditto 	43-44	1914.
(1-15 Hefts).		
Beiblätter zu den Annalen der Physik und Chemie.	1-36	1877-1912.
Beiblätter Annalen der Physik ..	37-38	1913-14.
(1-14 hefts).		
Annalen der Physik und Chemie ..	Erganzungsbande	.....
8th, 1878.		
Annalen der Physik und Chemie, Neue Folge. Namen Register.	1-35	1877-1888.
Ditto Sach Register ..	1-50	1877-1893.
Beiblätter zu der Annalen der Physik und Chemie Namen Register.	1-15	1877-1891.
Ditto Register ..	16-30	1892-1906.
Annalen der Physik und Chemie Namen Register.	1-CL	.....
Sach Register	CXX-CL	.....
The Electrician : A Weekly Illustrated Journal of Theoretical and Applied Electricity.	3	May 24, 1879-Nov. 15, 1879.
Ditto ditto ..	5-19	May 22, 1880-Nov. 4, 1887.
The Electrician : A Weekly Illustrated Journal of Electrical Science, Engineering, and Industry.	20	Nov. 11, 1887.

40. ANNUAL LIBRARY GRANT FOR PHYSICS.

Books	Rs. 100
Journals	„ 330

41. REMARKS.

I.Sc. Practical Work.

The I.Sc. laboratory measuring 45' × 35' is so fitted that all the apparatus for I.Sc. work is stored in the room, the smaller apparatus being kept in

two central tables fitted with cupboards and drawers. The other 13 tables are plain tables of the following dimension:—

8 tables measuring	..	..	..	..	8' × 3'
3 " "	..	..	..	..	6' × 3'
2 " "	..	..	..	..	5' × 2½'

Twelve balances are arranged on brackets round the walls. There are twelve sets of each kind of apparatus so that with a class of 18 students only four different sets of apparatus will ordinarily be in use at the same time. This greatly simplifies the teaching and supervision. Three members of the staff are in charge of each practical class. One of these is entirely occupied with the inspection and correction of note books. In this way each note book is inspected once every fortnight.

The instrument-keeper is in charge of all small apparatus issued to students for practical work. At the end of each class this apparatus is returned to him. This arrangement has been found necessary in order to prevent loss and detect damage to apparatus.

B.Sc. Practical Work.

The general laboratory measures 45' × 30'. In this room all the third year work is done, use being made of the I.Sc. laboratory when necessary. In addition to this room there are,—

One dark room	..	..	..	..	22' × 25'
and three electrical rooms	..	..	..	..	25' × 30'

Each of these has accommodation for 10 students.

B.Sc. Honours.

Ample accommodation and suitable apparatus.

APPENDICES.

APPENDIX I.

Abstract Statement of Income and Expenditure.

	INCOME.						EXPENDITURE.						
	1915-16.		1916-17.		1917-18.		1915-16.		1916-17.		1917-18.		
	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	
From Endowments ..	2,109	5 0	2,126	15 11	2,441	9 10	Teaching Staff ..	111,718	7 1	110,606	0 0	109,190	0 0
Fee Income (College and Hostel) ..	32,160	12 0	35,415	0 0	35,928	9 0	Clerical ..	4,540	0 7	4,569	0 0	5,069	15 3
Government Grant Non-recurring ..	2,795	0 0	2,472	5 0	276	0 0	Menial ..	3,176	9 11	2,799	8 11	2,800	10 8
Recurring ..	121,862	1 10	115,810	5 7	119,777	0 7	Furniture ..	400	0 0	400	0 0	....
Other Sources (mainly private scholarship funds) ..	2,723	6 5	1,641	0 0	1,942	0 0	Library (including grant for periodicals) ..	4,794	15 10	2,000	0 0	2,000	0 0
							Laboratories (for apparatus) ..	8,103	5 5	11,663	9 0	11,277	0 0
							Scholarships ..	14,517	0 11	10,361	10 6	14,860	3 5
							Paid by Government ..	10,420	8 7	7,402	0 0	10,943	0 0
							" out of endowments and private scholarship funds ..	4,096	8 4	2,959	10 6	3,917	3 5
							Miscellaneous ..	14,400	1 6	15,065	14 1	15,167	6 1
							Hostel expenditure ..	6,038	2 11	6,638	7 0	7,202	0 0
							Contract contingent ..	5,399	11 3	5,340	7 1	4,438	13 6
							Ground rent and taxes ..	1,688	3 4	2,217	0 0	1,808	8 7
							Other heads ..	1,274	0 0	870	0 0	1,718	0 0
TOTAL ..	161,650	9 3	157,465	10 6	160,365	3 5	TOTAL ..	161,650	9 3	157,465	10 6	160,365	3 5

APPENDIX II.

Return showing qualifications, length of service, and present pay of Members of teaching staff.

Name.	Post.	Qualifications.	Length of Service in this College.	Present Pay.	REMARKS.
1. V. H. Jackson, Esq. ..	Principal ..	M.A. (Oxon) ..	12 years.	Rs. 1,210	Personal allowance Rs. 200—10—250.
2. Dr. K. S. Caldwell ..	Prof. of Chemistry ..	B.Sc., Ph.D. (Leipzig) ..	9 "	900	
3. Prof. E. A. Horne ..	" " Economics ..	M.A. (St. Andrew's Univ.) ..	8 "	850	
4. " W. W. T. Moore ..	" " Mathematics ..	M.A. (Dublin) ..	5 "	700	On deputation.
5. " W. O. Smith ..	" " History ..	M.A. (Cantab) ..	4 "	900	"
6. " J. S. Armour ..	" " English ..	M.A. (Glasgow), B.A. (Oxon)	4 "	700	"
7. Vacant ..	" " Physics ..	.....	.....	..
8. Prof. H. R. Batheja ..	" " History ..	B.A. (Oxon), M.A. (Bombay)	2 months.	500	
9. " J. N. Sarkar ..	" " " ..	M.A. (Cal. I), 1892 ..	19 years.	600	" [I.E.S.
10. " J. C. Banerji ..	" " English ..	M.A. (" I), 1889 ..	14 "	500	Offg. allowance of Rs. 100 in
11. " R. Sarma ..	" " Sanskrit ..	M.A. (") 1901 ..	12 "	350	On deputation. [I.E.S.
12. " A. T. Chattarji ..	" " Mathematics ..	M.A. (" I), 1897 ..	10 "	500	Offg. allowance of Rs. 100 in
13. " M. Yasin ..	" " Persian and Arabic ..	Old system of Nizamia ..	10 "	300	Hostel allowance of Rs. 60.
14. " A. T. Mukherji ..	" " Physics ..	M.A. (Cal. II), 1908 ..	9 "	425	Offg. allowance of Rs. 100 in I.E.S. and Hostel allowance of Rs. 75.
15. " J. N. Samaddar ..	" " History ..	B.A. (Cal. Hons.), 1903. ..	6 "	300	
16. " R. K. Jha ..	" " Economics ..	M.A. (" II), 1912 ..	5 "	250	
17. " N. Niyogi ..	" " English ..	M.A. (" I), 1906 ..	4 "	250	
18. " R. C. Roy ..	" " Chemistry ..	M.Sc. (" II), 1911 ..	3 "	250	
19. " C. C. Sinha ..	" " Philosophy ..	M.A. (" III), 1908 ..	3 "	200	
20. " G. H. Sinha ..	" " English ..	M.A. (" II), 1914 ..	2 "	200	
21. " S. C. Sarkar ..	Offg. Prof. of History ..	M.A. (" II), 1911 ..	1 year	200	
22. " J. N. Prasad ..	Prof. of Sanskrit ..	M.A. (" II), 1908 ..	2 months.	200	
23. " P. N. Das Gupta ..	Offg. Prof. of Mathematics ..	M.Sc. (" I), 1914 ..	4 years	220	Offg. allowance of Rs. 50 in P.E.S. and Govt. Mess allow- ance of Rs. 45.

APPENDIX II—*contd.*

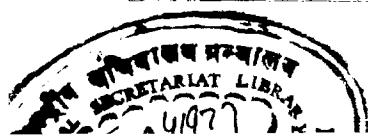
Return showing qualifications, length of service, and present pay of Members of teaching staff.

Name.	Post.	Qualifications.	Length of service in the College.	Present Pay.	REMARKS.
24. Prof. K. N. Banerji ..	Offg. Prof. of Physics ..	M.Sc. (Cal. I), 1903 ..	4 years.	Rs. 200	Offg. allowance of Rs. 50 in P.E.S.
25. „ M. M. Haq ..	„ „ „ English ..	M.A. („ III), 1911 ..	1 month	200	
26. Babu C. B. Roy ..	Demonst. in Chemistry ..	M.A. („ III), 1911 ..	10 years.	150	
27. „ K. Dayal ..	„ „ Physics ..	M.Sc. („ II), 1913 ..	4 „	125	
28. „ J. N. Ghosh ..	„ „ Chemistry ..	M.Sc. („ I), 1914 ..	4 „	125	
29. „ P. Lall ..	„ „ „ ..	M.Sc. (All. I), 1913 ..	2 „	125	
30. Mr. W. Rahman ..	„ „ Physics ..	B.Sc. (Cal.) 1910, I.Sc.(Lond.) ..	2 „	125	On deputation.
31. Maulvi A. N. Md. Ali Hasan.	Lecturer in Arabic and Persian ..	M.A. („ I), 1915 ..	2 „	145	Hostel allowance of Rs. 20.
32. Mr. J. Mahanty ..	„ „ English ..	M.A. („ III), 1916 ..	8 months.	125	
33. Maulvi S. S. Ahmad ..	Offg. Lecturer in Mathematics ..	M.Sc. („ II), 1917 ..	3 „	125	
34. Babu D. N. Raha ..	Lecturer in English ..	M.A. („ II), 1915 ..	2 „	155	Govt. Mess allowance Rs. 30.
35. „ N. M. Ghosh ..	„ „ Philosophy ..	M.A. („ II), 1915 ..	1 month	125	
36. „ S. M. Datta ..	Demonst. in Physics ..	M.Sc. („ I), 1915 ..	Joined on day of Inspection.	125	
37. Vacant ..	„ „ „ ..	.....	.....	..
38. Pandit D. D. Tripathi ..	Lecturer in Sanskrit ..	Entrance and Kavyatirtha..	5 years.	100	
39. Maulvi A. Husain ..	„ „ Persian and Arabic ..	Old system of Nizamia	4 „	120	Govt. Mess allowance Rs. 20.
40. Pandit A. Misra ..	„ „ Sanskrit and Hindi ..		4 „	60	
41. Babu S. K. Mitra ..	Lab. Assistant (Phy. Lab.) ..	B.Sc. (Cal.) 1911 ..	7 „	75	
42. Maulvi A. Samad Khan ..	„ „ (Chem. Lab.) ..	B.Sc. („) 1912 ..	6 „	75	On leave.
43. Babu R. M. Sinha ..	Offg. Lab. Asst. „ „ ..	M.Sc. („ II), 1918 ..	3 „	75	
44. „ A. K. Kundu ..	Instrument-Keeper (Phy. Lab.) ..	M.Sc. („ III), 1917 ..	8 months.	50	
45. Vacant ..	Computer (Temp.) ..	.....	.....	..
46. Maulvi A. Wahid ..	Drill Instructor ..	.....	1 year	50	

APPENDIX III.

Weekly curriculum of teaching in Arts Department, 1918-19.

Class.	Name of Teacher.	No. of Lectures.	No. of Tutorial Periods.	No. of Students in Class.	No. of Tutorial Batches.
<i>Note.</i> —H=Honours.					
ENGLISH.					
Fourth year ..	Prof. J. C. Banerji ..	5+3H	6	61	6
	„ N. Niyogi ..	1H	..	13H	..
Third year ..	„ J. C. Banerji ..	1	..	57	..
	„ N. Niyogi ..	1H	..	22H	6
	„ G. H. Sinha ..	4+3H	6	..	..
	„ M. Haq ..	..	6	..	..
Second year ..	„ G. H. Sinha ..	2	..	116	11
	Babu D. N. Raha ..	2	5	..	..
	Mr. J. Mahanti ..	2	17	..	..
First year ..	Prof. G. H. Sinha ..	2	..	100	10
	„ M. Haq ..	..	10	..	..
	Babu D. N. Raha ..	3	10	..	..
SANSKRIT.					
Fourth year ..	Prof. J. N. Prasad ..	2+4H	0	22	3
	Pandit D. D. Tripathi ..	2	3	4H	..
Third year ..	Prof. J. N. Prasad ..	4+1H	1	17	4
	Pandit D. D. Tripathi ..	3H	1	2H	..
	„ A. Misra ..	0	1	..	..
Second year ..	Prof. J. N. Prasad ..	1	3	..	..
	Pandit D. D. Tripathi ..	1	1	57	8
	„ A. Misra ..	2	4	..	..
First year ..	„ D. D. Tripathi ..	1	4	..	..
	„ A. Misra ..	2	4	50	8
PERSIAN.					
Fourth year ..	Prof. M. Yasin ..	4	1	24	3
	Maulvi A. N. Md. Ali Hasan.	..	..	1	..
	Maulvi Amirul Husain ..	..	..	1	..
Third year ..	Prof. M. Yasin ..	2+3H	3	31	..
	Maulvi A. N. Md. Ali Hasan.	1H	1	3H	4
	Maulvi Amirul Husain ..	2	0	..	..
Second year ..	Prof. M. Yasin ..	..	1	..	..
	Maulvi A. N. Md. Ali Hasan.	..	1	54	7
First year ..	Maulvi A. N. Md. Ali Hasan.	4	5	43	6
	Maulvi Amirul Husain ..	..	1	..	..
ARABIC.					
Second year ..	Maulvi A. N. Md. Ali Hasan.	4	..	1	..
First year ..	Maulvi Amirul Husain ..	4	..	7	..
HISTORY.					
M.A. ..	Prof. H. R. Batheja ..	8	..	3	(6th year)
	„ J. N. Samaddar ..	2	..	14	(5th year)
	„ S. C. Sarkar ..	1	..	..	..
Fourth year ..	„ H. R. Batheja ..	2H	3	34	3
	„ J. N. Samaddar ..	2+2H	..	3H	..
	„ S. C. Sarkar ..	2	..	..	..



APPENDIX III—concl'd.

Weekly curriculum of teaching in Arts Department, 1918-19.

Class.	Name of Teacher.	No. of Lectures.	No. of Tutorial Periods.	No. of Students in class.	No. of Tutorial Batches.
HISTORY—concl'd.					
Third year	Prof. H. R. Batheja	4	..	33	3
	.. J. N. Samaddar	2H	3	5H	..
	.. S. C. Sarkar	2H	..	..	..
Second year	.. J. N. Samaddar	..	1	73	7
	.. S. C. Sarkar	3	6	..	..
First year	.. J. N. Samaddar	..	6	67	6
	.. S. C. Sarkar	4	..	..	..
MATHEMATICS.					
Fourth year	Prof. A. T. Chatterjee	4+3H*	..	..	38†
	.. P. N. Das Gupta	1H	5	4H	5
Third year	.. A. T. Chatterjee	1+2H*	..	..	44†
	.. P. N. Das Gupta	3+2H	..	..	12H
Second year	.. A. T. Chatterjee	..	2	47	4
	.. P. N. Das Gupta	4	2	..	..
First year	.. A. T. Chatterjee	4	2	38	3
	.. P. N. Das Gupta	..	1	..	..
PHILOSOPHY AND LOGIC.					
Fourth year	Prof. C. C. Sinha	2	2	17	2
	Babu N. M. Ghosh	2	..	..	..
Third year	Prof. C. C. Sinha	4	2	13	2
Second year	.. C. C. Sinha	4	..	116	11
	Babu N. M. Ghosh	..	11	..	..
First year	Prof. C. C. Sinha	..	5	100	10
	Babu N. M. Ghosh	4	..	..	..
ECONOMICS.					
M.A.	Prof. E. A. Horne	5-6	..	4	..
	.. R. K. Jha	..	3	..	..
Fourth year	.. E. A. Horne	3	Each student receives half an hour's individual teaching.	15	..
	.. R. K. Jha	2		..	..
Third year	.. E. A. Horne	2	Each student receives half an hour's individual teaching.	9	..
	.. R. K. Jha	2		..	..

* One of these lectures is to fourth year and third year Honours students jointly.

† Including Science Students.

APPENDIX IV.

Results in University Examinations, 1917 and 1918.

	SUBJECT.							Results as a whole.	
	English.	Sanskrit.	Persian.	Logic and Philosophy.	History.	Mathematics.	Economics.		
I.A. EXAMINATION, 1917.									
No. appeared ..	70	25	39	70	50	23	..	No. in (English) class ..	83
No. who passed ..	42	24	36	67	38	21	..	No. sent up (a) ..	71
Percentage of passes	60	96	92·3	95·7	76	91·3	..	No. appeared ..	70
No. who failed in this subject only.	9	..	..	..	2	..	..	No. who passed ..	40
								Percentage of passes on no. who appeared ..	57·1
I.A. EXAMINATION, 1918.									
No. appeared ..	81	33	41+4*	81	51	33	..	No. in (English) class ..	95
No. who passed ..	71	25	40+4*	56	42	29	..	No. sent up ..	81
Percentage of passes	87·6	75·7	97·5	69·1	82·3	87·9	..	No. appeared ..	80
No. who failed in this subject only.	..	..	100*	5	..	..	..	No. who passed ..	53
								Percentage of passes on no. who appeared ..	66·2
* Arabic.									
B.A. EXAMINATION, 1917.									
No. appeared ..	52	17	25	..	35	8	19	No. in (English) class ..	55
No. who passed ..	42	16	24	..	24	8	17	No. sent up (b) ..	53
Percentage of passes	80·8	94·1	96	..	68·6	100	89·5	No. appeared ..	52
No. who failed in this subject only.	1	..	..	..	3	..	..	No. who passed (c) ..	36
								Percentage of passes on no. who appeared ..	69·2
B.A. EXAMINATION, 1918.									
No. appeared ..	49	8	25	4	32	11	18	No. in (English) class ..	52
No. who passed ..	36	5	25	1	28	8	12	No. sent up ..	50
Percentage of passes	73·4	62·5	100	25	87·5	72·7	66·6	No. appeared ..	48
No. who failed in this subject only.	2	1	..	..	..	2	1	No. who passed (d) ..	31
								Percentage of passes on no. who appeared ..	64·6

(a) Including one ex-student.

(b) Including one ex-student.

(c) Includes 5 who obtained second class Honours in English, out of 5 who appeared; and 3 who obtained second class Honours in History, out of 3 who appeared.

(d) Includes 2 who obtained second class Honours in English out of 4 who appeared; one who obtained first class Honours in Sanskrit out of 2 who appeared.

II.

REPORT

ON

RAVENSHAW COLLEGE, CUTTACK,

FOR 1918-19.

The College was affiliated to Calcutta University in the following subjects up to the standards mentioned:—

B.A. and B.Sc.—English (Pass and Honours), Vernacular Composition, Sanskrit (Pass and Honours), Persian (Pass and Honours), Mathematics (Pass), Philosophy (Pass and Honours), Chemistry (Pass), Political Economy and Political Philosophy (Pass), History (Pass and Honours), Physics (Pass).

I.A. and I.Sc.—English, Vernacular Composition, Sanskrit, Persian, History, Logic, Mathematics, Physics, Chemistry, Botany.

(Inspected on November the 7th and 8th, 1918, by Mr. E. A. Horne and Dr. K. S. Caldwell).

I. GENERAL.

ADMINISTRATION.

1. The College is under the management of a regularly constituted Governing Body. Its members, appointed by Government, are as follows:—

The Commissioner of the Orissa Division, President, *ex officio*.

The Principal, Vice-President and Secretary, *ex officio*.

Rai Bahadur J. C. Roy, Professor of Botany.

Babu G. C. Ganguli, Professor of English.

The Hon'ble the Raja of Kanika.

2. The Governing Body met five times during the session 1917-18, and this session, up to the time of inspection, has met six times. Its work consists, for the most part, of considering applications and making recommendations for appointments to the College staff, and in examining and passing the College accounts. The powers of the Governing Body of a Government college are defined in the Bihar and Orissa Education Code, pp. 67-8.

3. The College Council, which includes all the members of the teaching staff, met four times last session, and has met once this session. Its business is mainly to advise the Principal with regard to the results of the promotion and test examinations, and to decide, before the beginning of each session, what combinations of subjects students shall be permitted to take up.

4. The clerical staff consists of a head clerk, who is also cashier and accountant, on pay of Rs. 75—5—100; a second clerk on pay of Rs. 35—1—45, who is also a steno-typist and receives an allowance of Rs. 30 as such; and a third clerk on Rs. 25—1—35. The arrangement whereby the same man is both accountant and cashier is not a good one. The clerical staff is said to be adequate. There is a whole-time librarian (a graduate) on pay of Rs. 50—2—70.

5. The following books and registers were inspected, and were found to be kept in proper form:—

Proceedings of the Governing Body.

Proceedings of the College Council.

Conduct Register.

Attendance Register.

Admission Register.

Register of Transfer Certificates.

Cash Books.

In the Marks Register are recorded the results of the periodical examinations, of which there are three during the session in the first and third year classes and two in the second and fourth year classes. The marks given for written work in the tutorial classes are not recorded in the office. This might be done with advantage. The accounts for the Hostel, and the accounts of expenditure on Common Room and Athletics, are kept separately from the general College accounts. All accounts are first checked by the Principal, and afterwards counter-checked by the two professor-members of the Governing Body. Periodical statements of accounts are examined and passed by the Governing Body. There is no professional audit.

FINANCE.

6. The monthly tuition fee is Rs. 4 in all the classes, and no extra fee is charged for Science. The same amount (Rs. 4) is charged as admission fee, and as transfer fee. Students pay Re. 1 annually as subscription to the Common Room Magazine, and Re. 1 annually to the Athletic Fund. An annual charge of Rs. 2 is levied to meet the cost of College Examinations. A student who elects to take up Honours in any subject should pay an additional tuition fee (as at St. Columba's College, Hazaribagh) of Rs. 2 a month. In Appendix I are given returns of income and expenditure for 1915-16, 1916-17 and 1917-18.

BUILDINGS.

7. The College buildings consist of a central block (the former Collegiate School), two Science blocks a short distance to the north-east of the main building, and a small building (the former Survey School) to the south. These buildings stand in very limited grounds near the heart of the town. As soon, however, as it is possible to erect the new buildings, the College will be removed to an open site some distance outside the town. In addition to the College itself, the sanctioned plans provide for two hostels, each to accommodate 200 students, and quarters for 12 professors: and there will be plenty of space for playing-fields. Quarters for the Principal and Senior Professor have already been built, and are occupied by Mr. Lambert and Mr. Bhate. Quarters adjoining the present hostel are provided for the Superintendent, Prof. A. C. Ganguli. The following is the class-room accommodation in the present College buildings:—

Four class-rooms (the largest of which is 47' by 24' and the smallest 40' by 20½') for the two sections of the first and second year classes, two being in the main building, and two on the upper floor of one of the Science blocks, above the Botany Department.

Third year class-room	(22' by 22')
Fourth year „ „	(32' by 22') all in the main building.
Five tutorial „ „	
Economic „ „	(27' by 6½')
Persian „ „	(20' by 13') in the former Survey School.
(Also used as History Seminar)	
Economics Seminar	(24' by 15')

This accommodation, for a college of 550 students, is not adequate; and the arrangement by which Arts classes are held in part of one of the Science blocks is, at best, a makeshift. It appears to be possible, however, to provide for the requirements of the different classes, and without serious overcrowding. The lack of a hall, in which meetings of the whole College can be held, is noticeable. A serious defect in the present buildings is the absence of any proper library or reading-room. Two small rooms (each 23' by 18') are all that can be spared for the purpose of a Students' Common Room.

8. The furniture is adequate, if somewhat old-fashioned and clumsy. Much of it consists of long benches with desks attached, of unequal heights, the lowest being placed in front and the highest at the back of the class-

room. Separate desks and stools are used for examinations. The latrines are of an old type and dilapidated. Attention should be given to these, and to the provision of some better arrangement for the teaching staff, if the College is likely to remain much longer in its present premises.

LIBRARY.

9. The Library, which now contains over 10,000 volumes, is located in two rooms each 23' by 18' in the main building. In addition, the librarian has two small office-rooms, and one of the rooms set apart for the Students' Common Room is used as a Reading Room. The present catalogue is antiquated but a new catalogue on the Dewey system has been prepared, and is ready for printing. Considerable additions have been made to the History section during the last year or two; and there are good collections both in History and in Economics. In the case of the latter the collection of official publications requires to be improved and kept up to date. In Philosophy there have been few recent additions. The number of books added to the library in 1917-18, classified under different heads, was as under. The library grant has this year been raised from Rs. 1,000 to Rs. 1,500.

English Literature	55
History and Economics	142
Biography	8
Philosophy	14
Persian	10
Sanskrit	8
Bengali	36
Oriya	41
Mathematics and Astronomy	15
Physics, Chemistry and Botany	26
Reference and Miscellaneous	58
TOTAL	413

It does not appear that very good use is made of the Library by students. The number of books borrowed by students during the session 1917-18 is shewn below. No deposit is required; but every student who wishes to borrow books from the library is supplied by the Principal with a card, which serves both for identification and for recording the books taken out by him.

First year class	436 books borrowed.
Second	369 " "
Third	421 " "
Fourth	242 " "

10. The following is a list of the scientific and other journals obtained. There is an annual grant of Rs. 750 for this purpose.

Analyst.	Nature.
Annals of Botany.	Philosophical Magazine and Journal of Science.
Botanical Gazette.	Physical Review.
Bulletin of American Mathematical Society.	Science Abstracts.
Electrician	Science Progress.
Journal of Physical Chemistry.	Scientific American and Supplement.
Journal of American Chemical Society.	Commerce.
Journal of the Astronomical Society of India	Contemporary Review.
Journal of British Astronomical Association.	Economist.
Journal of Chemical Society.	Edinburgh Review.
Journal of the Society of Chemical Industry	English Historical Review.
Mathematical Gazette.	Great Thoughts.
Mathematical Questions and Solutions.	Indian Thought (Sanskrit).
	Indian Trade Journal.
	Journal of Education.
	Journal of Political Economy.
	Journal of Bihar and Orissa Research Society.

Near East.	Vidyodaya (Sanskrit).
Philosophical Review.	Bengal Co-operative Journal.
Poetry Review.	Educational Times.
Weekly Times and Literary Supplement.	Journal and Proceedings of the Asiatic Society of Bengal.
Bihar and Orissa Gazette.	The Pioneer.

TEACHING STAFF.

11. Particulars as to the qualifications, period of service, and present pay of members of the teaching staff are contained in Appendix 2. The following are the changes which have occurred since July 1917. Mr. Whitlock left the College on September 3rd, 1917, on deputation to the Army Department. Prof. G. P. Ganguli was appointed to act in the Indian Educational Service in his place. Babu B. Chatterji was appointed to act in the Provincial Educational Service in place of Prof. G. P. Ganguli, and Babu S. L. Das Varma joined the staff as Lecturer in English on January 17th, 1918. Babu B. Chatterji was transferred to the G. B. B. College, Muzaffarpur, with effect from the beginning of the current session; and Babu S. C. Ganguli joined the staff in his place on July 23rd, 1918. Babu B. K. Chatterji, Professor of English, was placed on special duty in the office of the Director of Public Instruction at the close of the session 1917-18; Babu N. M. De, of the Patna College, has been appointed in his place, but had not joined at the date of inspection. Mr. Khosla was transferred to Muzaffarpur as Principal of the G. B. B. College on September 14th, 1917; and Mr. Bhate took his place as Professor of History in the Indian Educational Service on February 25th, 1918. In place of Babu J. K. Sarkar, Lecturer in Philosophy, transferred to the G. B. B. College, Muzaffarpur, with effect from July 16th, 1917, Babu R. N. Pati joined the staff on November 15th, 1917. Babu D. C. Das, Professor of Economics, left the College to join the Provincial Civil Service on January 24th, 1918; his post was filled by Babu B. B. Mukerji on July 15th, 1918. The post vacated by Pandit A. Upadhyaya, Lecturer in Sanskrit, who was transferred to the G. B. B. College, Muzaffarpur, towards the close of the session 1916-17, remained vacant during the whole session 1917-18; it was filled by the appointment of Pandit Jagannath Misra on July 15th, 1918. In this case, therefore, the post remained unfilled for more than 15 months while in four other cases an interval of from 4 to 5½ months elapsed before the post was filled, and in a fifth the post remained unfilled at the date of inspection after a lapse of 4 months, the gentleman appointed having not been able up to that time to join. Such a state of things means considerable disorganization of College work, and points to something defective in the machinery for filling vacancies, for which a remedy ought to be found. It cannot, moreover, be regarded as satisfactory that so many transfers should be thought necessary from the staff of one college during a single year.

12. The following are additions to the staff, taking effect (with the exception of the first, which dates from last session) from the beginning of the current session :—

Pandit I. D. D. Datti	..	..	Lecturer in Sanskrit.
Babu P. N. De	..	..	Lecturer in Mathematics.
(Babu H. K. Das, formerly Lecturer, being appointed to be a second Professor of Mathematics.)			
Babu G. C. Mahanti	..	..	Demonstrator in Chemistry.
Babu S. C. Roy	..	..	Demonstrator in Physics.
Babu J. M. Chakravarti	..	..	Gymnastic Instructor.

COLLEGE CURRICULUM IN ARTS SUBJECTS.

13. Detailed particulars given with regard to the weekly curriculum in each subject in Appendix 3. Provision is made in the B.A. classes for the following subjects and combinations of subjects—

English, Vernacular Composition, a Classical Language, and History or Philosophy or Mathematics or Economics.

English, Vernacular Composition, History, and Economics.

This allows of five out of ten possible combinations. That the choice of subjects permitted is apparently so limited is mainly due to the great popularity of Sanskrit. Out of 72 students in the fourth year class, 55 are reading Sanskrit (and 7 Persian); 52 out of 60 in the third year class. The College is admitted to the Honours standard, and Honours teaching is provided, in English, Sanskrit, Persian, History and Philosophy. In the Intermediate Arts classes provision is made for the following combinations :—

English, Vernacular Composition, Logic, a Classical Language, and History or Mathematics or Botany.

14. The number of periods of College (lecture and tutorial) work, according to the combination of subjects taken up, is given below for each year. The length of the period is one hour.

<i>Fourth Year.</i>						
English .. ..	..	..	8	8	8	8
Vernacular Composition	..	..	1	1	1	1
Sanskrit (or Persian) ..	..	..	6 (5)	6	6 (4)	6 (4) ..
History .. ..	..	..	7	..	..	7
Philosophy .. ..	..	..	..	5	..	..
Mathematics .. ..	..	..	..	..	6	..
Economics .. ..	..	..	..	..	..	9
TOTAL		..	22(20)	20	21(19)	24(22)
						25

Honours students have, in addition, five extra periods in English and Sanskrit, four in Persian, six in History, and three in Philosophy. Thus students taking English, History and Economics, with Honours in English or History, have 30 to 31 periods a week. This is far too much. Even 19 to 22 periods, which is the most usual number for pass students, is a somewhat heavy time-table. The above include three tutorial periods in Economics, which is exercise and one each in other subjects, except in Vernacular Composition and Persian, in which no tutorial instruction is given. Although required by the Regulations, no separate tutorial instruction is given to Honours students in any subject but History, in which subject one of the six periods above mentioned is a tutorial period.

<i>Third Year.</i>						
English .. ..	..	..	7	7	7	7
Vernacular Composition	..	..	1	1	1	1
Sanskrit .. ..	..	..	4	4	4	0
History .. ..	..	..	5	0	0	5
Philosophy .. ..	..	..	0	5	0	0
Mathematics .. ..	..	..	0	0	6	0
Economics .. ..	..	..	0	0	0	9
TOTAL		..	17	17	18	21
						22

In addition, Honours students have five extra periods in English, three in Sanskrit, four in History and Philosophy. No tutorial instruction is given to Honours student as such, and none is given in pass History or in Vernacular Composition. In English there are two tutorial periods (included in the above), and other subjects one.

Second Year.

If the course includes History	..	lectures :	21	}	25 periods.
		tutorials :	4		
„ „ Mathematics	..	lectures :	20	}	24 „
		tutorials :	4		
„ „ Botany	..	lectures :	17	}	23 „
		tutorials and			
		practicals :	6		

This is a somewhat heavy time-table. There are six lectures a week (with one tutorial) in English and History; five (with one tutorial!) Mathematics; four (with one tutorial) in Logic and Sanskrit; three (with two practical periods) in Botany; and one lecture in Vernacular Composition.

First Year.

If the course includes History	.. lectures : 16	} 20 periods.
	tutorials : 4	
.. .. Mathematics	.. lectures : 18	} 21 ..
	tutorials : 3	
.. .. Botany	.. lectures : 17	} 22 ..
	tutorials and	
	practicals : 5	

Five lectures a week (with one tutorial) are given in English and Mathematics; four (with one tutorial) in Sanskrit; four (with two practical periods) in Botany; three (with one tutorial) in Logic; and one in Vernacular Composition.

15. A comparison of the present time-table (for pass students) with that in force two years ago follows. At that date tutorial instruction was given in English, Sanskrit, History (except in the third year), Philosophy (second and fourth years), Mathematics (first and second years) and Economics.

		July, 1916	July, 1918.
Fourth year	..	18 to 27 periods.	19 to 25 periods.
Third	..	15 to 24 ..	17 to 22 ..
Second	..	23 to 26 ..	23 to 25 ..
First	..	18 to 22 ..	20 to 22 ..

16. Teaching work is distributed amongst the various members of the staff as under :—

Subject.	Name of teacher.	No. of lectures.	No. of tutorial periods.	Total.
English	Principal ..	4	..	4
	Prof. G. C. Ganguli ..	9	7	16
	.. K. B. Samantarai ..	9	8	17
	.. S. L. Das Varma ..	10	7	17
	.. N. M. De (a) ..	(5)	(13)	(19)
Sanskrit	Babu S. C. Ganguli ..	7	11	18
	Prof. K. N. Das ..	15	2	17 (b)
	Pandit A. B. Mahanti ..	6	9	15 (c)
	.. I. Datta ..	5	7	12 (d)
Persian	.. J. N. Misra ..	6	9	15 (e)
	Prof. A. Kadir ..	8	..	8 (f)
	Maulvi A. Latif ..	8	..	8 (g)
History	Prof. G. S. Bhate ..	11	2	13
	.. N. K. Sanyal ..	9	9	18
	Babu N. C. Banarji ..	9	8	17
Philosophy and Logic	Prof. M. M. Senapati ..	8	8	16
	.. M. V. Ray ..	11	6	17
	Babu R. K. Pati ..	10	7	17
	.. S. C. Ghosal (h) ..	..	..	..
Mathematics	Prof. S. K. Ganguli ..	9	6	15
	.. H. K. Das ..	8	9	17
	Babu P. N. De ..	3	12	15
Economics	Prof. S. C. Burdhan ..	7	6	13
	.. B. Mukherji ..	5	6	11 (i)

(a), (h) Has not yet joined.

(b), (c), (e) In addition, delivers 2 lectures on vern. comp. (Oriya).

(d) 3 lectures (Hindi).

(f) 1 lecture (Urdu).

(g) 2 lectures "

(i) 4 lectures (Bengali).

17. The staff is numerically adequate in all subjects. Tutorial classes should be formed in Persian, and in History in the third year; the Persian staff is decidedly underworked and a few additional tutorial batches should be formed in Logic as soon as the College has its full complement of staff in this subject. In each of the Honours subjects students should receive tutorial instruction over and above that which they receive as Pass students in the same subject. In other respects the Regulations are complied with. So far as Honours teaching is concerned, Mr. Whitlock's absence on deputation to the Army Department has seriously weakened the English staff; but his absence, it is to be hoped, is only temporary. In Philosophy it cannot be said that the College comes up to the standard which the University ought to set before itself. We have indicated what, in our opinion, this standard should be, in what we have said regarding the applications for admission to Honours teaching in Philosophy made by two other external colleges; the T.N.J. College, Bhagalpur, and the B.N. College, Bankipore. We declined to recommend their admission on the ground that no special facilities existed, at present, at either college for higher teaching in this subject; and we consider that the admission of the Ravenshaw College should be withdrawn on the same grounds, unless someone of high qualifications, and preferably a member of the Indian Educational Service, be appointed to the staff. There is no member of the staff with first class qualifications; and little attention has been given to the library in this branch of knowledge in recent years. Failing compliance, it is for consideration whether the admission of the college to Honours teaching in this subject should not be withdrawn.

18. The Calcutta Inspectors wrote as follows in the report of their inspection of the College on November 30th, 1914. "In view of the heavy failures in almost all the literary subjects, specially in English and Logic, we suggested that more time and attention should be given to Tutorial Work." This was done. Small tutorial groups were formed, and systematic tutorial instruction was arranged for on the Patna University Regulations. Information on this head will be found in Supplementary Note (A).

NUMERICAL STRENGTH.

19. The average monthly number on the rolls, and the average daily attendance, during the last two years, are shown below:—

			Average Monthly No.	Average Daily Attendance.
1916-17	..	..	.. 488	465
1917-18	..	..	.. 432	425

The growth of the College previous to that year is shown in the table below, which gives the number on the rolls on July 31st of each year.

1907	..	..	..	.. 197
1911	..	..	..	.. 317
1912	..	..	..	.. 409
1913	..	..	..	.. 491
1914	..	..	..	.. 544

One fact, which should be noted, is the large wastage that occurs, especially during the earlier part of the session. The number actually admitted last year, for example, was 563, whereas the number remaining on the rolls at the end of the session was only 496—representing a net loss of 12 per cent. All the above figures include Science as well as Arts students.

RESULTS IN UNIVERSITY EXAMINATIONS.

20. A full analysis of the results in each subject at the I.A. and B.A. examinations conducted by the Patna University this year, and at the same examinations conducted by the Calcutta University in 1917, is contained in Appendix 4. The percentage of passes in the I.A. and B.A. examinations amongst candidates from this College, together with the corresponding

percentage of candidates from Bihar and Orissa as a whole, during the last five years is as follows:—

			I.A.	B.A.
1914	..	.	.. 48·0 (33·2)	44·3 (40·8)
1915	..	..	.. 41·3 (47·2)	42·8 (54·4)
1916	..	..	.. 55·9 (46·3)	50·0 (52·9)
1917	..	..	.. 55·1 (41·07)	58·5 (47·2)
1918	..	..	.. 57·6 (50·7)	45·6 (42·2)

COLLEGIATE LIFE.

21. In its present situation and buildings the College is much handicapped by the lack (1) of a suitable Students' Common Room; (2) of a college hall; (3) of adequate playing-fields.

A full-time drill and gymnastic instructor has been added to the staff this year; and, as soon as the necessary apparatus has been obtained, drill and gymnastics will become a part of the college routine. There is a drill shed, three tennis courts (one reserved for the staff), and a cricket (or hockey) field, within the College compound. There are three more tennis courts, belonging to the hostel; and the College has the use of a Football ground on the Qila maidan. The annual subscription for games is Re. 1, to which Government adds an equal amount. Compared with other colleges in the province, the Ravenshaw College did well as regards recruitment to the Indian Defence Force. The number of students who joined the Calcutta University Corps from this College was 19, as compared with 4 from the Patna College and one from the T.N.J. College, Bhagalpur. The Debating Club consists of four sections—*viz.*, English, Oriya, Bengali, and Urdu. The last has been recently formed. The subjects for debate receive the approval of the Principal, who is President of the Club. Members of the staff are Vice-Presidents of the different sections. The meetings are held at 1 P.M. on Saturdays. The programme for the session 1917-18 included 9 debates in English, 5 in Oriya, and 4 in Bengali. Prizes are given annually for extempore speaking and essay-writing. There is an Economic Society, "whose object is to infuse in its members a spirit of enquiry into the economic condition of Orissa." The annual subscription is As. 6; and this entitles members to the payment of half their travelling expenses on excursions undertaken by the Society. Last session the members visited the local Experimental Farm; and three meetings were held, at which papers were read on the Local Canal Workshops, the Economic Needs of Orissa, and the Possibilities of Orissa Forests. The Society possesses a small museum of economic products of Orissa, started in March 1917. There is, besides, a History and Economics Seminar, at which papers are read by students on economic and historical topics. Four meetings were held during the session 1917-18. This year Government has made a special grant of Rs. 300 to be spent on excursions to places of historical and other interests. The following is the list of periodicals supplied to the Students' Common Room. There is a combined subscription of Re. 1 per annum to the Common Room (to which Government adds Rs. 200) and the Magazine. This was started at the end of 1916, and appears three times a year.

Statesman.

Illustrated London News; Spectator; Literary World.

Strand Magazine; Bookman; Nineteenth Century and After; Hibbert Journal; International Journal of Ethics; Knowledge; Nature; Indian Education.

Mukura; Utkal Sahitya; Utkal Dipika.

This year arrangements have been made for a series of "Extension" lectures, to be delivered by members of the staff, to which the general public will be invited by ticket.

STATE OF DISCIPLINE.

22. There is only one recent entry in the conduct book. This relates to the rustication by the Principal for three months of a student convicted

of cheating at a periodical examination. It is to be inferred that the discipline is good and that exemplary punishment is given when needed.

RESIDENCE OF STUDENTS.

23. The College hostel consists of two blocks—old and new. The old block is a building of the bungalow type, forming three sides of a quadrangle. It contains 20 rooms, and accommodates 54 boarders. The rooms are three seated; and one is set apart as a Sick Room, another as a Common Room. The new block is a modern two-storied building. It contains 26 four-seated rooms, one of which is set apart as a Common Room while another is occupied by the resident Assistant Superintendent. There are four smaller rooms, one of which is used as a Doctor's Room and the other three as sick rooms. The furniture in both hostels consists of a chauki, chair, shelf-table, small hanging cupboard, and set of clothes pegs. The boarder is also provided with a reading lamp, but finds his own oil. It would be a distinct improvement if the lighting of the rooms were taken over by the hostel authorities (the cost being recovered from the boarders), and a better type of lamp supplied. There is a good arrangement for supplying boiled drinking water. Most of the boarders provide themselves with mosquito curtains. The hostel charges are low. The seat-rent is Re. 1/8 in the new block, and Re. 1 in the old, and there is, besides a monthly charge of As. 6 for furniture and As. 4 for medical attendance. The doctor visits the hostel every evening. Rs. 5 has to be deposited as caution-money on admission to the hostel. The ordinary messing charges come to Rs. 8 or 9 a month; including tiffin, they amount to Rs. 12 or so. Oil costs the boarders about As. 6 a month. Thus, all told, the expenses for board and lodging amount to Rs. 14 or 15 a month. Monitors, of whom there are two in the old and four in the new block, are exempted from payment of seat-rent. The Hostel Superintendent is Babu A. C. Ganguli, Professor of Chemistry, who lives in quarters provided for him close to the hostel. The Assistant Superintendent, Babu A. Mahanti, Lecturer in Sanskrit, resides in the new block. The former receives an allowance of Rs. 100 a month, the latter one of Rs. 40. The roll-call and gate books are properly kept. The plan followed at present is for the Superintendent or Assistant Superintendent to record the attendance after a round of visits to the different rooms. Night inspections are made from time to time. No entries in the conduct book appear to be necessary. This year a Common Room, which is supplied with a daily newspaper and other periodicals, has been provided both in the old and the new block, and is much appreciated.

24. There are three temporary attached messes, which have been opened recently in order to meet, to some extent, the unsatisfied demand for accommodation. Particulars regarding these are given below. We fully agree with the Principal in the view which he takes of his responsibility in this matter. The College (or the University) cannot insist on satisfactory conditions of residence, when it is quite impossible for many students, if left to their own resources, to find decent lodgings. The University can approve of the arrangements made by Mr. Lambert, as a provisional measure; and some arrangement of the kind appears to be imperative until the College, on removal to its new site, is provided with adequate hostel accommodation.

	Attached Mess No. 1.	No. 2.	No. 3.
Capacity ..	20	10	15
Present No. of boarders.	16	8	11
Seat-rent ..	Re. 1 and 1/8	Re. 1	Re. 1 and 1/8
Furniture charge ..	As. 6	As. 6	Boarders provide their own furniture.
	A two-storied house (rental Rs. 53). The sanitary arrangements are not altogether satisfactory. Babu S. C. Ganguli is resident superintendent.	A one-storied house (rental Rs. 20).	A two-storied house (rental Rs. 35).
	All three messes are within a short distance of the College. The rooms are light and airy.	Professors G. C. Ganguli and S. C. Burdhan, who live near by, are responsible for the supervision of these two messes. The arrangement is the best which can be made in the circumstances.	

25. The Principal deposes a number of members of the staff to visit personally the homes of all students living with recognized guardians and to report (a) on the position and character of the guardian; (b) whether the other inmates of the house are relation, or include outsiders (e.g. school-students); (c) whether the lodgings and surroundings are insanitary or otherwise undesirable. It is not always easy to take action, however, where an unsatisfactory report is received, in the absence of any alternative accommodation which can be offered to the student.

II. PHYSICAL LABORATORY.

26. PHYSICS STAFF.

Name.	Post held.	Academic Qualifications.	Details of Service.	Other Experience.
Babu Sarat Chandra Mazumdar.	Professor of Physics.	M.A. (1st in class II), 1893.	Professor of Physics since August 1914.	Carried on original Research work for some years in the Presidency College with Dr. J. C. Bose and Mr. Jackson. Was Professor of Physics in private colleges from 1898 to 1907. Demonstrator in Physics in Presidency and Patna Colleges from 1907 to 1914.

PHYSICS STAFF—*contd.*

Name.	Post held.	Academic Qualifications.	Details of Service.	Other Experience.
Babu Narayan Misra	Demonstrator	M.Sc. (class II), 1914.	Demonstrator in Physics since October 1914.	....
Babu Satis Chandra Roy.	Ditto	M.Sc. (1st in class I), 1918.	Demonstrator in Physics since 10th September, 1918.	....
Babu Sarat Kumar Ghosh.	Instrument-keeper	B.Sc., 1917.	Instrument-keeper since 15th July, 1917.	....
Babu Lalit Mohan Palit.	Laboratory Assistant.	Entrance..	Laboratory Assistant, Physical Laboratory, since December 1907.	....
Nilmoni Choudhury	Mechanic ..	....	Mechanic since August 1914.	....

MENIAL STAFF.

Dukhi Boral—Laboratory bearer, pay Rs. 8 a month.

Banamber Jena—Laboratory bearer, pay Rs. 8 a month.

27. GRANTS.

	1917-18	1918-19
Annual Grant	Rs. 1,500	Rs. 1,500
Contingent Grant	900	900

28. APPARATUS.

Condition of Apparatus in Store Room Good.

29. DIMENSIONS OF ROOMS.

I.Sc. Laboratory	40' × 24'
B.Sc. General Laboratory	29' × 23'
Optical Room	20' × 19'
Electrical Room	20' × 19'
Store Room	29' × 23'
Preparation Room	24' × 12'
Theatre	28' × 24'

Theatre—total length of seats 112 ft., allowing $1\frac{1}{2}$ ft. per student=74.

I.Sc. Laboratory—12 tables giving accommodation for 24 students.

B.Sc. Laboratory—accommodation for third year 16 and fourth year 12.

Assuming that the classes are not divided into batches there is therefore accommodation for the following numbers :—

First year	24
Second year	24
Third year	16
Fourth year	12

Actual numbers on the rolls :—

First year	50
Second year	64
Third year	11
Fourth year	10

First year divided into two batches and second year into three batches.

30. GENERAL ARRANGEMENT OF WORK.

No. of Lecturers ..	..	..	..	..	3
		I.Sc.		B.Sc.	
		I.	II.	III.	IV.
No. of Lectures per week		4	4	4	5
No. of Periods Pract., etc. per week.	1 of 2 hrs.	1 of 2 hrs.	3 of 2 hrs.	3 of 2 hrs.	

31. WORKSHOP.

There is a good workshop and Mechanic attached to the Laboratories.

32. LIBRARY.

Annual grants for books Rs. 80

33. JOURNALS.

Electrician, Philosophical Magazine, Physical Review, Science Abstracts A and B, Science Progress.

III. CHEMICAL LABORATORY.

34. CHEMISTRY STAFF.

Name.	Post held.	Academic Qualifications.	Details of Service.	Other Experience.
Babu Atul Chandra Ganguli.	Professor of Chemistry.	B.A. (Hons. in Physics and Chemistry)	Professor of Chemistry since December 1907.	Science teacher Hughli Collegiate School from 1901-02, Junior Chemical Assistant Presidency College and afterwards Junior Demonstrator in Chemistry from July 1902 to December 1907, contributed some original papers to the Chemical Society, London.
Babu Rajani Kanta Basu.	Demonstrator in Chemistry.	M.A. (Class II), 1908.	Demonstrator in Chemistry since July 1910	Temporary Assistant Presidency College, Calcutta, July 1909 to January 1910. Professor of Chemistry, Hindu Academy, from February to May 1910.

CHEMISTRY STAFF—*contd.*

Name.	Post held.	Academic Qualifications.	Details of Service.	Other Experience.
Babu Gurucharan Mahanti.	Demonstrator in Chemistry.	M.Sc. (Class II), 1918.	Demonstrator in Chemistry since 28th October, 1918.	
Babu Indramani Mahanti.	Laboratory Assistant.	B.Sc., 1916.	Laboratory Assistant, Chemical Laboratory since July 15th, 1918.	
Babu Dayanidhi Panda.	Store-keeper.	I.Sc.	Store-keeper, Chemical Laboratory, since 15th July, 1918.	Assistant, Chemical Laboratory, for about 9 months.

MENIAL STAFF.

	Pay.
Banamali Jena (Gasman)	Rs. 10 a month.
Dhobai Swain (Laboratory Bearer)	8 ..
Sarat Sinha (Laboratory Bearer)	8 ..

35. GRANTS.

	1917-18	1918-19
Annual Grant	Rs. 1,500	Rs. 1500
Contingent Grant	900	900

36. APPARATUS.

Condition of Apparatus in Store Rooms ..	{ Good and sufficient.
Condition of Students' Apparatus ..	{ Properly looked after.
	.. Good.

37. DIMENSIONS OF ROOMS.

I.Sc. Laboratory	40' × 24'
B.Sc. Laboratory	32' × 14'
Physical Chemistry	19' × 20'
Balance Room	15' × 8'
Lecture Theatre	23' × 30'
Store Room	23' × 30'
Staff Laboratory and Preparation Room ..	19' × 20'

Staff also work in the Physical Chemistry Room.

Theatre—total length of benches 114 ft., allowing 1½ ft. per student=76 students.

I.Sc. Laboratory—total length of working benches 109 ft.

Total number of cupboards—56, giving accommodation for 28 first year students and 28 second year students.

B.Sc. Laboratory—total length of working benches 72 ft

Total number of cupboards—32, giving accommodation for 16 third year and 16 fourth year.

No. of students on the rolls:—

First year	50
Second year	72
Third year	11
Fourth year	9

38. GENERAL ARRANGEMENT OF WORK.

No. of lecturers	..	..	..	..	3
No. of lectures per week	..	}	First year	..	4
			Second year	..	4
			Third year	..	4
			Fourth year	..	4
No. of practical periods per week	..	}	First year	..	1 of 2 hours.
			Second year	..	1 of 2 ,,
			Third year	..	3 of 2 ,,
			Fourth year	..	3 of 2 ,,

First year is divided into two batches and second year into three batches. In the first year two students share a cupboard, but have different sets of apparatus. In the second year there is the same arrangement. Eight cupboards in the B.Sc. room are being also used by this class.

39. LIBRARY.

Annual grant for books on Chemistry	Rs. 80.
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40. JOURNALS.

Journals of the Chemical Society, Society Chemical Industry, American Chemical Society, Analyst, Journal of Physical Chemistry, Nature, Scientific American.

41. REMARKS.

The number of students in the first and second year is greater than that for which there is a proper accommodation. The sharing of a cupboard by two students is not a satisfactory arrangement. We recommend the numbers should be limited accordingly. In addition to the three bearers a man on somewhat higher pay should be appointed for looking after the Engine, Gas and Distillation plants. The engine referred to is one used for pumping water.

IV. BOTANICAL LABORATORY.

42. BOTANY STAFF.

Name.	Post held.	Academical Qualifications.	Detail of Service.
Rai Bahadur Jogesh Chandra Roy.	Professor of Botany.	M.A. Calcutta with second class in Natural Science, 1883.	Professor of Botany, Cuttack, 30 years.
Biraj Mohan Senapati	Assistant	L.A. (Cal.), Sabour.	Since July 1915.

MENIAL STAFF.

One bearer	..	..	..	Rs. 8
Three malis each on	..	..	..	,, 6

43. DIMENSIONS OF ROOMS.

Main Laboratory	..	..	..	20' × 37'3'
Laboratory for Chemical work	..	..	..	31'6' × 8'3'
Store Room	..	..	..	20' × 11'3'
Lecture Theatre	..	..	..	20' × 26'
Professors' Room	..	..	..	20' × 16'
Experimental Garden.				

Practical work—Room for 24 students working in pairs.

Lecture Theatre—Total length of seats 72 ft., allowing $1\frac{1}{2}$ ft. per student=48 students.

No. of students on the rolls :—

First year	..	..	..	..	30
Second year	..	..	..	..	48 in two batches.

44. GENERAL ARRANGEMENT OF WORK.

No. of Lecturers	..	..	..	..	1
No. of Lectures per week	..	{	First year	..	4
			Second year	..	2
No. of practical periods per week	..	{	First year	..	2 (1 hour each)
			Second year	..	2 ($1\frac{1}{2}$ hour each)

45. GRANTS.

Annual grants for apparatus, etc.	Rs. 825
Contingent grant	„ 500

46. LIBRARY.

Annual grant for books	„ 75
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47. JOURNALS.

Botanical Gazette, Annals of Botany.

APPENDICES.

APPENDIX I.

Abstract Statement of Income and Expenditure.

	INCOME.										EXPENDITURE.								
	1915-16			1916-17			1917-18				1915-16			1916-17			1917-18		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.		Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Fee Income	23,979	3	0	26,105	15	0	24,225	6	6	Teaching Staff	85,795	0	0	95,205	6	8	75,684	11	7
Government Grant	91,187	12	0	87,690	4	10	74,341	8	6	Clerical	3,150	0	0	2,700	0	0	4,550	12	0
										Menial	1,206	0	0	1,482	0	0	1,482	0	0
										Library	1,000	0	0	1,000	0	0	1,000	0	0
										Laboratories	3,825	0	0	3,825	0	0	3,825	0	0
										Scholarships	9,121	0	0	7,780	13	2	6,426	14	5
										Miscellaneous	11,069	15	0	1,803	0	0	5,597	9	0
TOTAL	1,15,165	15	0 ^(a)	1,13,796	3	10 ^(b)	98,566	15	0 ^(c)	TOTAL	1,15,166	15	0	1,13,796	3	10	98,566	15	0

(a) In addition, there was an income derived from endowments (mainly disbursed in scholarships) amounting to Rs. 885-5-4

(b) " " " " " " " " 234-2-6

(c) " " " " " " " " 119-8-6

APPENDIX II.

Return showing Qualifications, Length of Service, and Present Pay of Members of Teaching Staff.

Name.	Post.	Qualifications.	Length of Service at this College.	Present Pay.	REMARKS.
1. H. Lambert, Esq. ..	Principal ..	M.A. (Cantab.), 1907 ..	3 years.	Rs. 1,200	Personal allowance Rs. 200.
2. Prof. W. V. Duke ..	Professor of Economics ..	,, (T.C.D.), 1913 ..	6 ,,	750	On deputation.
3. ,, P. O. Whitlock ..	,, ,, English ..	B.A. (Cantab.), 1912 ..	4 ,,	700	,, ,,
4. ,, R. P. Khosla ..	,, ,, History ..	M.A (Panjab), B A. (Oxon) ..	2 ,,	500	,, ,,
5. ,, G. S. Bhate ..	,, ,, History ..	,, (Edin.) Hons., 1905 ..	2 months.	500	
6. ,, J. C. Roy ..	,, ,, Botany ..	,, (1883) in Botany, Class I ..	29 years.	700	
7. ,, G. C. Ganguli ..	,, ,, English ..	,, (Class II), 1891 ..	14 ,,	500	Officiating allowance in I E.S., Rs. 100.
8. ,, K. N. Das ..	,, ,, Sanskrit ..	,, (,, II), 1906 ..	11 ,,	300	
9. ,, A. C. Ganguli ..	,, ,, Chemistry ..	B.A. (Hons. in Physics and Chemistry), 1892.	8 ,,	400	Hostel allowance Rs. 100
10. ,, N. K. Sanyal ..	,, ,, History ..	M.A. (Class II), 1907 ..	8 ,,	250	
11. ,, S. K. Ganguli ..	,, ,, Mathematics ..	,, (,, II), 1901 ..	7 ,,	250	
12. ,, M. M. Senapati ..	,, ,, Philosophy ..	,, (,, II), 1908 ..	7 ,,	300	
13. ,, S. C. Bardhan ..	,, ,, Economics ..	,, (,, II), 1912 ..	6 ,,	300	
14. ,, A F. M. Abdul Kadir ..	,, ,, Persian ..	,, (,, I, All.), 1913 ..	5 ,,	250	
15. ,, B. K. Chatterji ..	,, ,, English ..	,, (,, II), 1903 ..	5 ,,	300	On deputation.
16. ,, B. B. Ray ..	,, ,, Philosophy ..	,, (,, II), 1910 ..	4 ,,	250	
17. ,, S. C. Mazumdar ..	,, ,, Physics ..	,, (,, II), 1893 ..	4 ,,	300	
18. ,, K. Samantarai ..	,, ,, English ..	,, (,, II), 1913 ..	3 ,,	250	
19. ,, H. K. Das ..	,, ,, Mathematics ..	,, (,, II), 1914 ..	3 ,,	200	
20. ,, B. B. Mukherji ..	,, ,, Economics ..	,, (,, II), 1917 ..	4 months.	200	
21. Maulvi A. M. Md. Latif ..	Lecturer in Persian ..	Calcutta Madrasa ..	8 years.	150	
22. Pandit A. Mahanti ..	,, ,, Sanskrit ..	M.A. (Class II), 1914 ..	4 ,,	165	Hostel allowance Rs. 40.
23. Babu N. C. Banerji ..	,, ,, History ..	,, (,, II), 1914 ..	1 ,,	125	

APPENDIX II—contd.

Return showing Qualifications, Length of Service, and Present Pay of Members of Teaching Staff.

Name.	Post.	Qualifications.	Length of Service at this College.	Present Pay.	REMARKS.
24. Babu R. K. Pati ..	Lecturer in Philosophy ..	M.A. (Class II), 1917 ..	1 year.	Rs. 125	Offg. allowance in P.E.S., Rs. 50.
25. Pandit I. D. D. Datti ..	„ „ Sanskrit ..	„ („ III, Punjab) ..	1 year.	125	
26. Babu S. S. Das Varma ..	„ „ English ..	„ („ II), 1917 ..	9 months.	175	
27. Pandit J. N. Misra ..	„ „ Sanskrit ..	Sanskrit Title Exam. ..	4 „	100	
28. Babu S. C. Ganguli ..	„ „ English ..	M.A. (Class II), 1917 ..	4 „	125	
29. „ P. N. De ..	„ „ Mathematics ..	„ („ II), 1917 ..	1 „	125	
30. „ R. K. Basu ..	Demonstrator in Chemistry ..	„ („ II), 1908 ..	8 years.	200	
31. „ N. Misra ..	„ „ Physics ..	M.Sc. („ II), 1914 ..	4 „	125	
32. „ S. C. Roy ..	„ „ Physics ..	M.A. („ I), 1918 ..	2 months.	125	
33. „ G. C. Mahanty ..	„ „ Chemistry ..	M.Sc. („ II), 1918 ..	1 month.	125	
34. „ J. M. Chakravarti	Gymnastic Instructor ..	Trained in Drill and Gymnastic in Calcutta, Comilla and Chittagong.	2 months.	50	

APPENDIX III.

Curriculum of Teaching in the Arts Department, Session 1917-18.

Class.	Name of Teacher.	No. of Lectures.	No. of Tutorial Periods.	No. of Students in Class.	No. of Tutorial Batches.
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Note:—H=Honours.

ENGLISH.

Fourth year ..	Principal ..	3	..	72	..
	Prof. G. C. Ganguli ..	2+1H	2	7H	..
Third year ..	„ K. B. Samantarai ..	2+1H	3	..	8
	„ S. L. Das Varma ..	3H	3	..	..
	Principal ..	1	..	60	..
	Prof. G. C. Ganguli ..	2+2H	5	13H	5
	„ K. B. Samantarai ..	2	..	..	..
Second year .. (two sections)	„ S. L. Das Varma ..	1H	1	..	..
	„ N. M. De ..	1H	2	..	..
	Babu S. C. Ganguli ..	1H	2	..	..
	„ K. B. Samantarai ..	2	3	107	16
	„ S. L. Das Varma ..	4	3	108*	..
	„ N. M. De ..	2	4	..	..
First year .. (two sections)	„ S. C. Ganguli ..	4	6	..	..
	Prof. G. C. Ganguli ..	2	..	..	..
	„ K. B. Samantarai ..	2	2	93	..
	„ S. L. Das Varma ..	2	..	97*	12
	„ N. M. De ..	2	7	..	..
	Babu S. C. Ganguli ..	2	3	..	..

SANSKRIT.

Fourth year ..	Prof. K. N. Das ..	3+3H	2	55	..
	Pandit A. B. Mahanti ..	1H	2	1H	4
	„ I. Datta ..	1	..	..	..
Third year ..	„ J. N. Misra ..	1+1H	..	..	..
	Prof. K. N. Das ..	2+3H	..	52	..
	Pandit A. B. Mahanti ..	1	2	5H	4
Second year .. (two sections)	„ I. Datta ..	..	2	..	..
	Prof. K. N. Das ..	2	..	61	..
	Pandit A. B. Mahanti ..	2+2	5	67	10
First year .. (two sections)	„ I. Datta ..	2	5	..	..
	Prof. K. N. Das ..	2	..	68	..
	Pandit I. Datta ..	2	..	69	9
	„ J. N. Misra ..	4	9	..	..

PERSIAN.

Fourth year ..	Prof. A. Kadir ..	2+2H	..	7	..
	Maulvi A. Latif ..	2+2H	..	1H	..
Second year ..	Prof. A. Kadir ..	3	..	14	..
	Maulvi A. Latif ..	1	..	..	..
First year ..	Prof. A. Kadir ..	1	..	12	..
	Maulvi A. Latif ..	3	..	..	..

LOGIC AND PHILOSOPHY.

Fourth year ..	Prof. M. M. Senapati ..	2+2H	2	31	..
	„ B. V. Ray ..	2+1H	1	1H	3
Third year ..	„ M. M. Senapati ..	2+2H	2	27	..
	„ B. V. Ray ..	2+2H	0	3H	2

* Including I.Se. students.

APPENDIX III—*contd.**Curriculum of Teaching in the Arts Department, Session 1917-18.*

Class.	Name of Teacher.	No. of Lectures.	No. of Tutorial Periods.	No. of Students in Class.	No. of Tutorial Batches.
LOGIC AND PHILOSOPHY—<i>contd.</i>					
Second year .. (two sections)	Prof. M. M. Senapati ..	0	4	85	..
	„ B. V. Ray ..	4	5	66	9
	Babu R. K. Pati ..	4	0	..	..
First year .. (two sections)	„ R. K. Pati ..	3+3	7	58	..
				81	7
MATHEMATICS.					
Fourth year ..	Prof. S. K. Ganguli ..	4	0	32*	..
	„ H. K. Das ..	1	0	..	..
	Babu P. N. De ..	0	3	..	3
Third year ..	Prof. S. K. Ganguli ..	2	3	32*	..
	„ H. K. Das ..	2	0	0	3
	Babu P. N. De ..	1	0	..	..
Second year ..	Prof. S. K. Ganguli ..	2	3	137*	..
	„ H. K. Das ..	3	9	..	12
First year ..	„ S. K. Ganguli ..	1	0	108*	..
	„ H. K. Das ..	2	0	..	9
	Babu P. N. De ..	2	9	..	..
HISTORY.					
Fourth year ..	Prof. G. S. Bhate ..	3+2H	2	16	..
	„ N. K. Sanyal ..	2+1H	1H	1H	2+1H
	Babu N. C. Banerji ..	1+2H	..	..	..
Third year ..	Prof. G. S. Bhate ..	3+3H	..	8	..
	„ N. K. Sanyal ..	1+1H	..	2H	..
	Babu N. C. Banerji ..	1	..	..	..
Second year ..	Prof. N. K. Sanyal ..	3	4	47	4
	Babu N. C. Banerji ..	3	4	..	..
First year ..	Prof. N. K. Sanyal ..	1	4	52	4
	Babu N. C. Banerji ..	2	4	..	..
ECONOMICS.					
Fourth year ..	Prof S. Burdhan ..	4	2	12	2
	„ B. Mukherji ..	2	4	..	..
Third year ..	„ S. C. Burdhan ..	3	4	13	2
	„ B. Mukherji ..	3	2	..	..

* Including Science students.

APPENDIX IV.

Results in University Examinations.

	SUBJECT.										Results as a whole.	
	English.	Sanskrit.	Persian.	History.	Logic and Philosophy.	Mathematics.	Economics.	Botany.	Physics.	Chemistry.		
I.A. EXAMINATION, 1917.												
No. appeared ..	133	119	6	37	129	68	..	26	46	9	No. in (English) class ..	150
No. who passed ..	88	117	6	32	125	66	..	24	40	8	No. sent up (a) ..	138
Percentage of passes	66.1	98.3	100	86.4	96.8	97.1	..	92.3	86.9	88.8	No. appeared ..	133
No. who failed in this subject only.	45	..	..	..	..	..	..	..	..	..	No. who passed ..	76
											Percentage of passes on No. who appeared ..	57.1
I.A. EXAMINATION, 1918.												
No. appeared ..	93	88	2	21	92	60	..	13	2	9	No. in (English) class ..	140
No. who passed ..	87	86	2	14	69	55	..	10	2	6	No. sent up (b) ..	102
Percentage of passes	93.5	97.7	100	66.6	75	91.6	..	76.9	100	66.6	No. appeared ..	100
No. who failed in this subject only.	1	..	..	..	6	..	..	2	..	1	No. who passed ..	69
											Percentage of passes on No. who appeared ..	69
B.A. EXAMINATION, 1917.												
No. appeared ..	64	48	3	14	30	17	13	..	..	..	No. in (English) class ..	65
No. who passed ..	53	42	2	12	21	17	10	..	..	..	No. sent up (c) ..	65
Percentage of passes	82.8	87.5	66.6	85.7	70	100	76.9	..	..	..	No. appeared (d) ..	64
No. who failed in this subject only.	10	..	..	..	1	..	1	..	..	..	No. who passed (e) ..	38
											Percentage of passes on No. who appeared ..	59.4
B.A. EXAMINATION, 1918.												
No. appeared ..	55	44	4	15	34	9	5	..	..	..	No. in (English) class ..	65
No. who passed ..	33	37	4	13	23	6	4	..	..	..	No. sent up (f) ..	57
Percentage of passes	60	84.1	100	86.6	67.6	66.6	80	..	..	..	No. appeared (g) ..	55
No. who failed in this subject only.	5	1	..	..	3	..	1	..	..	..	No. who passed ..	26
											Percentage of passes on No. who appeared ..	47.3

(a) Including six ex-students. (b) Including one ex-student. (c) Including three ex-students.

(d) Of these seven appeared in Honours in English; and one in Honours in Sanskrit.

(e) Of these one passed with First Class Honours in English, and two with Second Class Honours.

(f) Of these four appeared in Honours in English.

(g) Of these three passed with Second Class Honours in English.

III.

REPORT

ON

TEJ NARAYAN JUBILEE COLLEGE, BHAGALPUR

FOR 1918-19.

The College was affiliated to Calcutta University in the following subjects up to the standard mentioned :—

B.A.—English (Pass), Vernacular Composition, Philosophy (Pass), History (Pass), Political Economy and Political Philosophy (Pass), Sanskrit (Pass), Persian (Pass), Chemistry (Pass), Mathematics (Pass).

I.A.—English, Vernacular Composition, Sanskrit, Persian, Mathematics, History, Logic, Physics and Chemistry.

(Inspected on September the 19th and 20th by the Rev. J. C. Forrester and Mr. E. A. Horne, and by Dr. K. S. Caldwell on the 25th November, 1918).

I. GENERAL.

ADMINISTRATION.

1. The finances are administered by a Board of Trustees, and the management of the College is vested in a Managing Committee. The Board of Trustees is constituted as follows :—

- (1) The Managing Member of the 9-annas share of the Banaili Estate. The Hon'ble Raja Krityanand Sinha, B.A.
- (2) Babu Awadh Behari Sinha, Manager Banaili Estate.
- (3) Rai Sahib Surya Prasad, B.L.

The Managing Committee consists of the following :—

- (1) The Commissioner of the Bhagalpur Division, President (*Ex officio*).
 - (2) The District Judge (*Ex officio*).
 - (3)—(5) The members of the Board of Trustees (*Ex officio*).
 - (6) The Principal (*Ex officio*).
 - (7)—(8) Babu Anant Prasad, B.L., and Basanta Lal Sahu. Nominated (for 5 years) by the Hon'ble Rajah Krityanand Sinha, of Banaili.
 - (9)—(10) Prof. S. M. Bhattacharya, M.A., and B. C. Sinha, M.A., elected (for the current session) by the teaching staff.
- Rai Sahib Surya Prasad, B.L., has been re-elected Secretary for the current session.

There has been no change either in the personnel or rules of the Governing Body since it was reconstituted in 1916. Last year the Managing Committee met four times (July 5th, September 12th, and November 4th, 1917; April 25th, 1918; and it has met twice during the current session (June 5th, and August 18th, 1918).

2. The Professors' Council is an advisory body. Its chief function is to advise the principal in questions of discipline, methods of teaching and in matters affecting the general well-being of the College. It nominates the presidents of the two sections of the College Union, supervises the management of the Students' Common Room and the Athletic Club, and administers the Poor Boys' Fund. The Council met five times during last session.

3. The clerical staff consists of two men, the senior being head clerk, accountant and cashier, while his junior lends general aid in every matter save the handling of cash, which is entirely in the hands of the senior clerk.

The clerical staff is not sufficient for the work of the office, and more has to be done by the Principal than is desirable. As soon as possible the staff should be increased to three, viz. (1) Head Clerk and Accountant; (2) Cashier; (3) Junior Clerk. The Principal should be set free from as much routine office work as possible in order that he should be able to devote himself to supervision, organization, the inculcation of high ideals and standards of life and thought, and the training of his junior professors in educational methods. A thoroughly competent head clerk is a necessity, and the salary should be Rs. 50 to 75. The present head clerk has given many years of faithful service to the College in several capacities. It is not suggested that he should be superseded, as he appears to be competent to carry out his duties. But on his retirement, which will probably take place before long, the clerical staff should be reorganized on the lines laid down above.

4. The various registers were found in good order, and kept up-to-date, with the exception of the monthly abstract. A cashier's daily cash diary should be kept, totalled every day, and the cash checked at least once a week. The Principal inspects the cash books daily, and initials same. He checks the cash once a month. The present system of keeping the attendance registers is not entirely satisfactory, as it entails unnecessary work on the office staff. Several blanks were noticed where *A* should have been entered.

FINANCE.

5. The scale of fees and other charges is as follows:—

In the Intermediate classes the admission fee is Rs. 5, and the monthly tuition fee is Rs. 5; science students pay one rupee a month extra. In the B.A. classes the corresponding fees are Rs. 6. Every student pays a subscription of As. 12 to the Literary and As. 12 to the Athletic Union per annum; also As. 8 towards hot weather charges.

6. Below is given a financial statement for the year ending March 31st, 1918. An abstract statement of the finances during the past three years will be found in Appendix I.

INCOME.				DISBURSEMENTS.			
	Rs.	A.	P.		Rs.	A.	P.
Opening balance	14,620	13	10½	Establishment	48,510	1	3
Fees and fines	42,901	13	0	Hot weather charges	183	0	3
Government grant-in-aid	12,000	0	0	College Union	1,256	13	9
Special grant	4,500	0	0	Hostels (rent and taxes; Supdts.' allowances)	5,111	8	0
Scholarships	240	0	0	Rent and taxes of College	214	14	10½
				Arrears to contractors for building repairs and furniture	9,968	5	3
<i>Endowments.</i>				Library	1,076	9	0
D. N. Sinha's	2,600	0	0	Laboratories	4,948	9	0
Banaili Estate	11,000	0	0	Printing and advertising	761	6	0
Other sources	535	5	9	Stamps, stationery and contingencies	291	6	0
				Scholarships	240	0	0
				Misc. (including Principal's house allowance)	608	3	6
TOTAL	88,398	0	7½	TOTAL	73,170	12	10½

Closing balance Rs. 15,227-3-9.

The budget estimate of income for the current year is Rs. 72,940; fees and fines Rs. 42,540; grant-in-aid Rs. 12,000; endowments Rs. 18,400; the budgeted expenditure on staff amounts to Rs. 53,208. The financial stability of the College seems assured by the Banaili endowment of Rs. 16,000 per annum, which has been secured in perpetuity by a deed executed on December 20th, 1917.

BUILDINGS.

7. The College buildings consist of a large two-storied house, and a single-storied line separate from the main building. Part of the former is used by the collegiate school. There are seven rooms available for Arts classes. The Chemistry and Physics lecture theatres are also used for tutorial Arts classes. The largest room is the second year class-room, which measures 42 by 20 feet. The smallest is 20 feet square. In addition to these seven rooms, there is a Students' Common Room, 28 by 18 feet, various store-rooms, and a fine hall used as library and reading-room. This accommodation is not sufficient, and makes the construction of the routine very difficult. It is intended to demolish some malis' sheds near the entrance to the College, and to construct a new room, 40 by 20 feet, at the further end of the present single-storied line, at an estimated cost of Rs. 3,000; also to enlarge a room at the other end of the same line, at present used as an Athletics store-room, and to convert this into a class-room. Even with the addition of these two rooms, the accommodation will remain inadequate in view of the provision which now has to be made for accommodating tutorial classes. One or two of the class-rooms are ill-lighted; and the larger classes can only with difficulty be squeezed into the biggest of the class-rooms. For the most part, the furniture consists of desks, with benches attached made to seat two. But, owing to the present overcrowding, each bench has to accommodate three students. The want of space and of adequate furniture makes supervision at examinations difficult, and it is not surprising to find that there are frequent cases of cheating. A very fine site for new buildings has been secured outside the town, and plans providing ample accommodation have been prepared and sanctioned, at an estimated cost of Rs. 7½ lakhs, of which 3½ have been provided by the Banaili Estate, and the balance is to be found by Government. Owing to war conditions the erection of the new buildings cannot be proceeded with at present. It is desirable that building operations should be taken in hand at the earliest possible date. With the present accommodation the number of students should not be allowed to exceed 600. The sanitary arrangements are adequate.

8. No residences are provided for the staff. The Principal receives an allowance of Rs. 20 a month for house rent, and lives quite close to the College. Several of the staff receive free quarters, not as members of the staff, but as hostel superintendents.

LIBRARY.

9. The number of books in the library is 5,105. The average amount spent annually in the purchase of books during the past three years is Rs. 1,430-14-7. A Government grant of Rs. 1,500 has been made for the purchase of books during the current year. The number of books taken out for home reading last year was 1,340. There were 264 new books bought in 1917-18. The collection of books in the English Literature section is exceedingly good, and is probably the best of any college in the University. Great credit is due to the Principal and English staff. The History and Economics sections are good; but, for the latter, series of the more important Government publications bearing on the subject should be completed and kept up to date. More standard and modern books are required for the Mental and Moral Philosophy section. In the Physical Science sections the collections are poor. A large addition of modern books on elementary Mathematics should be made at an early date. Books on Astronomy are few in number, and some are out of date. There is a very fair collection of books on Higher Mathematics, of which the professors appear to make good use. The functions of the Library Committee seem to be of a nebulous character. There does not appear to be any justification for its existence. If the suggestion be made use of, the management of the library might safely be left in the care of the Principal or other member of the staff, who might be called chief librarian.

TEACHING STAFF.

10. Full particulars as to the qualifications, period of service, and present pay of members of the teaching staff are given in Appendix II. The salaries paid are on the scale laid down by Government for Colleges in receipt of a grant-in-aid. There is a Provident Fund, open to all members of the College staff getting not less than Rs. 50 a month. Membership is not obligatory. Each member of the Provident Fund contributes not less than $2\frac{1}{2}$ per cent. of his salary per month; and the College intends from this year to pay an equal amount for each member. We understand that some of the money to the credit of the Provident Fund has, with the consent of the members, been invested in War Loan bonds.

11. There was one change in the personnel of the teaching staff last session—Babu B. N. Mukherji being appointed Lecturer in History on November 19th, 1917, in place of Babu S. N. Bose, who resigned to join the staff of the G.B.B. College, Muzaffarpur. The following additions to the staff were made from the beginning of the present session:—

Babu S. K. Datta (Lecturer in English).
 „ B. N. Kanjilal (Lecturer in Logic).
 Mr. B. N. Kripalani (Tutor in English).

COLLEGE CURRICULUM IN ARTS SUBJECTS.

12. Detailed particulars with regard to the weekly curriculum followed in each subject will be found in Appendix III.

Provision is made in the B.A. classes for the following combinations:—

English, Vernacular Composition, a Classical Language, and History *or* Philosophy *or* Mathematics *or* Economics.
 English, Vernacular Composition, History and Philosophy *or* Economics.
 English, Vernacular Composition, Philosophy and Mathematics.
 English, Vernacular Composition, Mathematics and Economics.

This permits of no less than eight out of ten possible combinations of subjects; and in view of the difficulties of framing a routine, seems unnecessarily large.

In the Intermediate classes provision is made for the following:—

English, Vernacular Composition, Logic, a Classical Language, and History *or* Mathematics *or* Chemistry.
 English, Vernacular Composition, Logic, Mathematics and Chemistry.
 English, Vernacular Composition, a Classical Language, Mathematics and Chemistry.

For Chemistry will be substituted Elementary Physics and Chemistry, as soon as this course has been definitely introduced by the University. It is satisfactory to note that three out of five permissible combinations include a science subject.

13. The number of periods of college work according to the combination of subjects taken up, is given below for each year. Each period is 50 minutes.

Fourth Year.

If the course includes Philosophy ..	..	lectures: 19	} 22 periods.
		tutorials: 3	
„ „ „ does not include Philosophy ..	..	lectures: 18	} 21 periods.
		tutorials: 3	

In most subjects there are four lectures a week; in Philosophy five. In addition, there is one tutorial period per subject, or three periods in all; and there is one lecture a week on the vernaculars. In English there are no less than nine lectures. This seems excessive; and that so many lectures should be thought necessary suggests either that the course is too long, or that the average student has not made the progress in the subject which ought to be expected of him before he reaches this stage of his studies.

Third Year.

If the course includes Philosophy ..	..	lectures : 17 } tutorials : 3 } 20 periods.
.. .. , does not include Philosophy ..	..	lectures : 16 } tutorials : 3 } 19 periods.

In the third year seven lectures are given in English, as compared with nine in the fourth year. Otherwise the weekly curriculum is the same.

First and Second Years.

If the course includes a science subject ..	..	lectures : 17 } tutorials : 4 } 21 periods.
.. .. , includes , (with Logic) ..	..	lectures : 17 } tutorials and } practicals : 5 } 22 periods.
.. .. , , (without Logic) ..	..	lectures : 18 } tutorials and } practicals : 5 } 23 periods.

In English five lectures are given ; in Logic three ; and four each in the other two subjects. There is one lecture weekly on the vernaculars. In each Arts subject there is one period of tutorial instruction, and in Chemistry there are two periods of practical work.

14. It is of interest to compare the present weekly curriculum with that in force before the introduction, under the regulations of the Patna University, of tutorial instruction in every subject. We take the particulars printed in the last inspection report on the College for the Calcutta University, which are for the period July to December, 1916.

	July 1916.	July 1918.
Fourth year ..	22 or 23 periods (no tutorials) ..	21 or 22 periods.
Third ..	20 or 21 ..	19 or 20 ..
Second ..	24 to 27 .. (tutorials in English, Logic and Classical Language ..	21 to 23 ..
First ..	24 to 26 .. (tutorials in English and Logic) ..	21 to 23 ..

15. Teaching work is distributed amongst the various members of the staff as under:—

Subject.	Name of Teacher.	No. of lectures.	No. of tutorial periods.	Total.
English ..	Principal ..	10	..	10
	Prof. I. C. Misra ..	8	5	13
	Babu K. B. Gupta ..	6	8	14
	.. H. C. Mukherji ..	8	6	14
	.. S. K. Gupta ..	4	10	14
Sanskrit ..	Mr. B. B. Kripalani ..	..	14	14
	Prof. K. C. Chakravarti ..	8	9	17
Persian ..	Pandit T. P. Pandey ..	8	7	15
	Maulvi A. Majid ..	8	6	14
History ..	.. A. Ahmad ..	8	6	14
	Prof. K. P. Mitra ..	8	6	14
Philosophy and Logic.	Babu B. N. Mukherji ..	8	6	14
	Prof. B. C. Sinha ..	10	6	16
	.. P. S. Bose ..	6	10	16
Mathematics ..	Babu B. N. Kanjilal ..	6	10	16
	Prof. G. B. Mitra ..	8	8	16
Economics ..	Babu N. D. Banerji ..	8	8	16
	Prof. T. N. Bose ..	9	3	12

In addition, there are four lectures to be provided for in each of the three vernaculars, one in each class. These are shared amongst five or six members of the staff, who receive allowances of Rs. 20 to Rs. 30 a month for this extra work. This system has been in force some years.

16. The Principal has exercised great skill and patience in framing a routine which makes it possible, with but few exceptions, to comply fully with the regulations on the subject of tutorial instruction. His success is the more remarkable in view of the very limited number of rooms at his disposal for Arts teaching. At the most not more than nine classes or sections of classes can meet during the same period; and this is only possible by making use of the two science lecture theatres for tutorial classes. With two additional class-rooms, as provided for in this year's budget, the Principal's task in framing the routine will be lightened; and it will be possible to increase the number of tutorial batches in two or three subjects in which the limit to the number of students in a batch, *viz.* 15, is at present slightly exceeded.

17. Apart from Philosophy and Logic, the teaching staff is adequate; and, as will be seen from the particulars given above, no member of the staff is overburdened with work, with the exception of the Principal. In the case of Philosophy and Logic an additional lecturer is necessary, even for Pass teaching; and the Principal concurs in this view.

18. It is satisfactory to observe that the Principal and staff have already applied themselves energetically to the question of how to make tutorial instruction in each subject as useful and effective as possible. The subject has been discussed at a meeting of the Professors' Council, and will no doubt be considered afresh in the light of the experience gained of the practical working of the system. In a Supplementary Note on the subject some particulars are given of the methods of tutorial instruction followed, with comments thereon.

ADMISSION TO HONOURS TEACHING.

19. Application has been made for the admission of the College in two Arts subjects to the Honours standard, *viz.* in English and Philosophy. The Patna University Committee in para. 8, chapter 5, of their Report advised the concentration of Honours work in all subjects at the Central University; yet, as long as Honours courses continue to be provided at other external colleges, it would be unjust in our opinion to refuse admission (as a temporary measure) on this ground alone. (See paragraph 19 of the Report on the B.N. College). If, on the other hand, account is to be taken of local claims, then the present application certainly deserves consideration. Out of 123 students now on the rolls in the fourth year class 83, or nearly 68 per cent., belong to the Bhagalpur division; in the third year class 67 out of 110, or nearly 61 per cent. The high qualifications of the Principal, and the remarkably fine collection of books in all branches of English Literature contained in the College library, alike recommend the admission of the College to Honours teaching in English. Admission in this subject, we are of opinion, therefore, may be granted (without prejudice to any future developments as to Honours teaching in general) provided that a suitable room be set apart as an Honours class-room. The proposed distribution of Honours work in English placed before us by the Principal, is as follows:—

	Additional. (Honours) periods.	Present. (Pass) periods.	Total.
Principal	3	10	13
Prof. I. C. Misra ..	3	13	16
Babu H. C. Mukherji ..	2	14	16
„ K. B. Gupta ..	2	14	16
„ S. K. Gupta ..	2	14	16
Mr. B. B. Kripalani ..	2	14	16

14=(5 lectures and 2 tutorials in each Honours class).

Upon this scheme we have two criticisms to offer. The first is that Honours work ought to be mainly the concern of the Principal himself and the senior professor; the second is that the teaching work required of the Principal ought to be lightened, and certainly not increased. The addition of a fourth lecturer in English (bringing up the total staff to seven) would permit of this, and would also permit of additional tutorial instruction in the Pass classes which, in a subject like English, is most desirable. For by this additional appointment the Principal could be relieved of some of his Pass teaching by the other members of the staff.

20. We are unable to recommend the admission of the College to the Honours standard in Philosophy, at any rate for the present. As we have already noted, the present staff is inadequate even for Pass teaching. The library contains a very fair collection of Philosophical works; but is by no means exceptionally strong in this branch, as it is in English Literature. Nor do the numbers taking up Philosophy give the subject any special claim, as compared with History or Mathematics.

21. One recommendation we desire to make with regard to Honours teaching in general. We feel very strongly that, under the present conditions, a student reading for Honours is overburdened with work, and cannot study as he ought the subject in which he is specialising. At this College, for example, a student reading for Honours in English, if admission to Honours teaching in that subject be granted, on the proposed note would have 26 to 29 periods of college work in the week. This is far too heavy a time-table, and is bound to react unfavourably on the quality of the work done by the student. We recommend, in this connection, that steps should be taken as early as possible to amend the Regulations so as to provide for a greater degree of specialisation in the Honours courses in Arts subjects.

NUMERICAL STRENGTH.

22. The average monthly number on the rolls, and the average daily attendance, during the last two years are shown below:—

			Average monthly No.	Average daily attendance.
1916-17	..	..	621	600
1917-18	..	..	650	620

In 1907 the average number on the rolls was 148. Some idea of the growth of numbers during recent years may be obtained from the table below, in which is given the number on the rolls on July 31st in each year. The increase in 1916 is very striking. The total number of students on the rolls at the date of our inspection was 667. The serious overcrowding of class-rooms in the present premises makes it imperative that the College authorities should limit the numbers admitted, which ought not in any circumstances to exceed 600.

1913	..	..	..	..	389
1914	..	..	..	..	425
1915	..	..	..	..	511
1916	..	..	..	..	650
1917	..	..	..	..	665 (Nov. 30th).

All the above figures include I.Sc. as well as Arts students.

RESULTS IN UNIVERSITY EXAMINATIONS.

23. A full analysis of the results in each subject at the I.A. and B.A. examinations conducted by the Patna University this year, and at the same examinations conducted by the Calcutta University in 1917, is contained in Appendix IV. We think it right that we should draw attention to the very high percentage of passes, *viz.* 88·7 in English at the I.A. examination this year. The percentage for the province was 81·3. In view of the notorious deficiency of candidates in English, we are bound to conclude that the

standard of marking erred seriously on the side of leniency. The percentage of passes in the I.A. and B.A. examinations amongst candidates from this College, together with the corresponding percentage for candidates from Bihar and Orissa as a whole, during the last five years is as follows:—

				I.A.	B.A.
1914	..	..	..	24·3 (33·2)	37 (40·8)
1915	..	..	..	59·8 (47·2)	56·9 (54·4)
1916	..	..	..	64·6 (46·3)	55 (52·9)
1917	..	..	..	54·7 (41·07)	52·9 (47·2)
1918	..	..	..	56·1 (50·7)	36·6 (42·2)

COLLEGIATE LIFE.

24. There is a Common Room, funds for which are provided by a College grant of Rs. 200, and an annual subscription from students of As. 12 per head. The funds are used mainly for the purchase of periodicals, the balance being spent on social gatherings and entertainments held from time to time.

Debates in the College are held infrequently; but in several of the hostels there are active and flourishing literary unions. The Historical Society and the Economics Society are in a languishing condition. The Athletic Club, which enjoys funds similar to the Common Room, is handicapped by possessing only one playing field, a piece of ground reserved for the College, rent free, on the maidan outside the town. Football is the most popular of the games; and there are two elevens, the first holding a high place in local football. Cricket, hockey and tennis are also played—there being two tennis courts, one College and one hostel. All boarders in the College hostels are required to take exercise of some kind every day. As a rule, this takes the form of exercise with Indian clubs or dumb-bells the first thing in the morning.

STATE OF DISCIPLINE.

25. So far as one can judge, the state of discipline in the College is good. There are, however, discredibly frequent cases of cheating at College examinations. Undoubtedly, the cramped conditions under which the College examinations have necessarily to be conducted have a good deal to do with this. At the same time, these practices can only be stamped out by the imposition of most exemplary punishment on detection of the offence; and we received the impression that the Principal is too lenient in his treatment of such cases.

RESIDENCE OF STUDENTS.

26. The arrangements made for the residence of students are not entirely satisfactory. Of the 667 students at present on the rolls, 174 live in one or other of the hostels, 193 live with their parents, and 300 live with guardians. It is impossible to be assured of the *bona fides* and competency of the guardian of each student when the number is so great. The Principal does his best to enquire into each case, and has appointed a visiting committee consisting of Profs. B. C. Sinha, P. S. Bose, T. N. Bose, H. C. Mukherji, I. C. Misra, P. L. Chatterji, and A. Majid, whose duty it is to enquire into and improve, where possible, the manner of life led by the students, and to investigate the *bona fides* of guardians. Probably all that is possible is being done, but as soon as the new buildings are completed and sufficient hostel accommodation is provided, pressure should be brought to bear on the students to make them reside in the College.

27. There are six hostels attached to the College, the superintendent of each being a member of the teaching staff. All are within easy reach of the College. In five hostels the superintendent is resident in the hostel; in the sixth he lives with his family in a house very near the hostel, and a senior boarder acts as assistant superintendent. Five of the hostels are for

Hindus, and one for Muhammadan students. There is a monitor in each hostel. Monitors are allowed certain privileges in the form of choice of rooms and a measure of liberty from hostel rules; occasionally partial remission of hostel charges is made. The superintendent gets free quarters, but not free board. An allowance is made to superintendents according to the scale laid down by Government for aided hostels. The fees paid by boarders are:—admission fee Rs. 2; seat rent Re. 1-8 (ground floor), Rs. 2 (first floor); messing Rs. 6-8; establishment As. 8; charge for medical attendance As. 8. Messing does not include tiffin, for which boarders make their own arrangements. Boarders provide their own lights. A good lamp should be provided by the hostels for each boarder. The inclusive cost per month amounts to a sum varying from Rs. 12 to 14. The doctor visits each hostel every second day, and attends on other occasions when required. The capacity of each hostel, the number of boarders at the time of our inspection, and the names of the superintendents, are given below:—

Hostel No.	Capacity.	No. of Boarders.	Name of Superintendent.
1	48	46	Babu S. M. Datta.
2	44	39	„ H. C. Mukherji
3	36	28	„ B. N. Kanjilal.
4	25	23	„ N. D. Banerji
5	34	29	„ B. N. Mukherji.
6	19	9	Maulvi A. Ahmad.

The hostels are ordinary dwelling houses, five being rented and one being placed at the disposal of the College rent-free on condition the house is kept in repair. The rooms are lighted and airy, with a few exceptions. The sanitary arrangements are not very satisfactory, but if constant attention be paid to cleanliness and the use of disinfectants, the health of the boarders should not suffer. In two cases the drainage is not satisfactory, and the governing body of the College should insist upon the municipal authority providing proper drainage facility and outlets. If these precautions be taken the sanitary arrangements may suffice temporarily. The hostels appear to be kept clean. Physical exercise is compulsory. In one hostel a record is kept of the physical development of each boarder. This might be done in each hostel. Social and mental development is catered for by hostel literary societies, which in most cases seem to be doing useful work. Messing is in charge of the superintendent and a small committee of boarders. An admirable plan of detailing a boarder to accompany the servants to the bazar each day to purchase supplies has been instituted. This is highly commendable. There appears to be no difficulty in catering for the varying tastes of boarders of different communities, and a friendly compromise as to the menu obviates possible difficulties. The rules governing hostel life are satisfactory. The Principal lives near the College, and visits each hostel once a week. The accounts, roll-call, gate and conduct books are correctly and regularly kept. Evening roll-call is at 8 P.M.; and it would be well for the superintendent to visit the rooms of boarders several times a week between 10 and 11 P.M. In some cases this is done. It should be done in every hostel. Hostels charges are paid fairly punctually. In a few cases difficulty has been experienced in recovering charges. The hostels are practically self-supporting.

28. There are no licensed messes.

II. PHYSICAL LABORATORY.

29. PHYSICS STAFF.

Name.	Post held.	Academic Qualification.	Detail of Service.	Other Experience.
Sarada Mohan Bhattacharyya.	Professor of Physics.	Entrance, 1st Div. with Govt. Scholarship, 1881; F.A., 1st Div. with Govt. Scholar- ship, 1883; B.A., with Honours in Mathematics, 1886; M.A., II Class in Phy- sics, 1887. (Educated all along at the Dacca College.)	From 1888 to 1891 —Prof. of Phy- sics, Chemistry and Mathema- tics. From 1891 to 1908, was in entire charge of Physics (up to B.A. Hons. standard). Dur- ing several years of the same period had be- sides to teach Math. (up to B.A. Hons. Std.). Since 1908, on the withdrawal of affiliation in B.A. Physics, in the present capa- city, as the Prof. of Physics.	During two years (1901-02) was on leave here and served as the Professor of Physics and Mathe- matics in the Agartalla Col- lege (Hill Tip- pera State).
Snehamoy Datta	Lecturer and Demonstra- tor in Phy- sics.	Entrance, 1st Div., 1909; I.Sc., 1st Div., standing 6th from E.B. and Assam, 1911; B.Sc. Hons. in Physics,—2nd in the II Class (holder of the Woodrow Scho- larship), 1913; M.Sc. in Phy- sics—2nd in I Class (holder of the Univ. medal and prize), 1915. (Educated in Dacca and the Presidency Col- lege, Calcutta).	Since July 1916 in the present post.	Secured the Govt. of Ben- gal Research Scholarship, and worked with Mr. Meek in the Dacca College Labo- ratory.

MENIAL STAFF.

Bearer	Jhorua.
Workshop Mistry	Amrita Poddar.

30. GRANTS.

Annual grant	See note.
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31. APPARATUS.

Condition of Apparatus in Store Room	Good.
Condition of Students' Apparatus	Fair.

32. DIMENSIONS OF ROOMS.

Laboratories	..	..	..	20 ft. × 20 ft.
„ (dark room)	..	..	..	20 ft. × 10 ft.
Lecture Theatre	..	..	..	20 ft. × 20 ft.
Workshop	..	..	..	23 ft. 10 in. × 9 ft. 5 in.
Store Rooms	..	..	..	{ 20 ft. × 30 ft. and 20 ft. × 20 ft.
In Staff Laboratories	..	..	..	no arrangements.

Seating accommodation in Theatre.

Total length of seats=54 feet, giving accommodation for 36 students.

Total length of working Benches in Laboratories .. 45 ft. + 25 ft.=70 ft.

No. of students on the rolls.

Second year	..	..	..	..	..	34
First year	..	..	..	..	..	28

No. of Batches.

Second year	..	..	..	..	..	2
First year	..	..	..	..	..	2

33. GENERAL ARRANGEMENT OF WORK.

No. of Lecturers	..	..	..	..	..	2
No. of Lectures per week	..	..	{ I.Sc. 2nd year—6 periods.	..	..	..
			{ „ 1st year—4 „	..	..	..
No of Periods, Practical, etc., per week..	{ „ 2nd year—8 „	..	..	{ for two	..	..
	{ „ 1st year—4 „	..	..	..	..	..

Each second year batch works twice a week and each first year batch once. Batches work for the consecutive periods of 50 mts. each.

NOTE.

34. There is no fixed grant for the Laboratories. The amount spent on an average on them since 1913-14 is Rs. 2,529 a year. Allotments are not made separately for the Physics and Chemistry Laboratories, and they include contingent expenses as well as cost of apparatus, furniture and chemicals. The following statement shows the amounts spent on the Laboratories since 1913-1914:—

				Rs.	A.	P.
1913-14	..	..	..	2,679	14	8
1914-15	..	..	..	1,231	14	3
1915-16	..	..	..	1,524	11	3
1916-17	..	..	..	2,914	1	9
1917-18	..	..	..	4,295	7	6

The amount budgeted for the current session is Rs. 3,000, obtained from Government for the improvement of the Laboratories.

35. The existing accommodation is shown in the above statement. The main Laboratory accommodates 18 students working at a time. The Lecture Theatre has seating accommodation for 36 students. For I.Sc. working, therefore, it is possible to take 36 students in each year, arranging the Practical classes in two batches of 18 each. The Dark Room is not yet fitted with gas. In order to make possible the teaching of Physics up to the B.Sc. standard, the following would be necessary:—One of the Store Rooms measuring 20' × 20' would have to be converted into a laboratory for B.Sc. general work. The existing Professors' room measuring 20' × 20' would have to be fitted up as an electrical room. In view of the very limited accommodation available and the difficulty of obtaining apparatus we are unable to recommend the admission of the College to the B.Sc. Standard.

III. CHEMICAL LABORATORY.

36. CHEMISTRY STAFF.

Name.	Post held.	Academic Qualification.	Detail of Service.	Other Experience.
Haralal Das Gupta	Professor of Chemistry.	Entrance, 1st Div. (with Govt. Scholarship), 1904; F.A., 1st Div. (with Govt. Scholarship); B.A., with Honours in Physics and Chemistry and English; M.A. (1911), 2nd in the II Class.	From July 1912 teaching up to the B.A. standard in Chemistry.	From November 1911 to July 1912, served in the Metropolitan Institution Calcutta.
Khitish Chandra Mukherjee.	Professor of Chemistry.	B.Sc. of the Leeds University.	From Dec. 1914 teaching up to the B.A. Standard on Chemistry.	....
Phani Lal Chatterjee.	Demonstrator in Chemistry.	B.A. from St. Xavier's College (in the B. Course), 1902; Higher Agricultural Diploma of C.E. College, Sibpur, 1904.	Served as Agricultural Overseer for 6 months under Bengal Govt. Served as Principal Agricultural Inst., Deoghur, for 6 months. From 1909, serving in the present position.	Worked under Dr. E. R. Watson on a dye staff, in the Pusa Lab. (Chemical Department); under Dr. Bruhl in the C.E. College in Physical-Chemistry.
Girichand Misra	Laboratory Asst.	Read up to the B.A. standard (with Chemistry). Passed I.Sc. in the 1st Div.	From July 1918 serving in his present capacity.	....

MENIAL STAFF.

Rana, about 11-12 years' experience	Rs. 10
Hurwa, about 3 years	„ 8

37. GRANTS.

Annual Grant	See Note.
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38. APPARATUS.

Condition of Apparatus	Good.
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39. DIMENSIONS OF ROOMS.

I.Sc. Laboratory	40 ft. × 20 ft.
B.A. Laboratory	20 ft. × 20 ft.
Combustion Room	24 ft. × 10 ft.
Balance Room	20 ft. × 10 ft.
Lecture Theatre	40 ft. × 20 ft.
Store Room	30 ft. × 20 ft.
Preparation Room.—There is no separate Preparation Room. The Store Room is used for both purposes.	
Staff Laboratories.—There is no separate Staff Laboratories, two benches in the B.A. Laboratory are set apart for use of the staff.	
Workshop	20 ft. × 10 ft.
TOTAL AREA	3040 sq. feet.

Seating accommodation in Theatre—Total length of seats 144 ft. ; allowing 1·6 ft. per student equals 96 students.

I.Sc. Laboratory—Length of benches 98 ft.

Total number of students' cupboards—74, 56 of which are fitted in the benches ; this gives accommodation for 37 first year students, 37 second year.

Total number of students that can work in one batch—28.

B.Sc. Laboratory—(At present there are no B.Sc. students. Candidates take the B.A. Examination in Chemistry according to the Calcutta Regulations). There are 4 students' benches with 4 sets of lockers and drawers in each side giving accommodation for 8 third year and 8 fourth year.

Total number of students	{	First year I.Sc. .. 28	} = 91
		„ „ I.A. .. 63	
		Second year I.Sc. .. 34	} = 114
		„ „ I.A. .. 80	
		Third year Nil	} = 5
Fourth „ 5			
Number of batches	{	First year I.Sc. .. 2 batches.	}
		„ „ I.A. .. 3 „	
		Second year I.Sc. .. 2 „	}
		„ „ I.A. .. 4 „	
		Fourth year 1 batch.	

40. GENERAL ARRANGEMENT OF WORK.

No. of Lecturers	2	
No. of Lectures per week	I.Sc. 1st year. 4	
	B.A. 2nd year. 4	
No. of Periods, Pract., etc., per week.	B.A. 4th year. 6	
	{	1st year class, 5 batches, each working for 2 periods a week.
		2nd year class, 6 batches, each working for 2 periods a week.
		4th year class, 1 batch, working 6 periods a week.

NOTE.

41. There is no fixed grant for the Laboratories. The amount spent on an average on them since 1913-14 is Rs. 2,529 a year. Allotments are not made separately for Physics and Chemistry and they include contingent expenses as well as cost of apparatus, furniture and chemicals. The following statement shows the amounts spent on the Laboratories since 1913-14:—

	Rs.	A.	P.
1913-14	2,679	14	8
1914-15	1,231	14	3
1915-16	1,524	11	3
1916-17	2,914	1	9
1917-18	4,295	7	6

The amount budgeted for the current session is Rs. 3,000, obtained from Government for the improvement of the Laboratories.

42. It is seen from the above figures that the number of students taking Chemistry is greater than that for which there is proper accommodation. This is entirely due to the Intermediate Arts students who take Chemistry as an Arts subject.

RECOMMENDATIONS.

43. *Laboratory Grants.*—There are no fixed grants for the laboratories and allotments are not made separately for Physics and Chemistry. It is recommended that this should be altered and definite grants be made to each subject separately.

44. The Installation of an Engine, Dynamo and Battery would increase the efficiency of work in both Chemistry and Physics. These might be installed in a temporary building near the existing workshop and could be removed to the new buildings when these are erected.

APPENDICES.

APPENDIX I.

Abstract Statement of Income and Expenditure.

	INCOME.									EXPENDITURE.									
	1915-16.			1916-17.			1917-18.			1915-16.			1916-17.			1917-18.			
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	
Fees and fines	35,433	5	0	41,580	4	0	42,901	13	0	Establishment	44,635	14	0	45,445	3	4	48,510	1	3
Endowments	11,597	12	6	7,840	0	0	13,840	0	0	Furniture	5,199	3	6	1,151	0	0	3,845	4	3
Government grant, recurring	11,900	0	0	12,000	0	0	12,000	0	0	Library	2,738	5	0	477	13	9	1,076	9	0
Non-recurring .. ..	.....			5,000	0	0	4,500	0	0	Laboratory	3,248	6	0	2,244	11	0	4,948	9	0
Miscellaneous	97	12	0	111	7	9	535	5	9	Repairs	6,076	2	3	8,376	2	6	6,123	1	0
										Scholarships	240	0	0	240	0	0	240	0	0
										Miscellaneous (including Hostels).	6,744	11	6	5,341	7	10½	8,427	4	4½
TOTAL ..	59,028	13	6	66,531	11	9	73,777	2	9	TOTAL ..	68,882	10	3	63,276	6	5½	73,170	12	10½

APPENDIX II.

Qualifications, Length of Service and Present Pay of Teaching Staff.

Name.	Post.	Qualifications.	Length of Service.	Present Pay.	REMARKS.
1. Principal N. N. Raye ..	Principal and Professor of English.	M.A., 1st Class, 1894; stood second, silver medalist	13 years.	Rs. 570	House allowance, Rs. 20.
2. Prof. I. C. Misra ..	Professor of English	M.A., 1883	31 "	250	
3. " S. M. Bhattacharya ..	" " Physics	M.A., 2nd Class (Natural Science), 1887	27 "	250	
4. " B. C. Sinha ..	" " Philosophy	M.A., 2nd Class, 1889 ..	24 "	250	
5. " K. C. Chakravarty ..	" " Sanskrit	M.A., 3rd Class (Sanskrit), 1908; M.A., 3rd Class (English), 1911.	9 "	220	Allowance for lecturing on Bengali, Rs. 20.
6. " P. S. Bose ..	" " Philosophy	M.A., 2nd Class, 1912; previously research student at Manchester College, Oxford	8 "	200	
7. " G. B. Mitra ..	" " Mathematics	M.A., 3rd Class, 1906 ..	8 "	200	
8. " T. N. Bose ..	" " Economics	M.A., 2nd Class, 1911 ..	7 "	200	
9. " H. L. Das Gupta ..	" " Chemistry	M.A., 2nd Class, 1911 ..	6 "	210	
10. " K. C. Mukherji ..	" " Chemistry	B.Sc., Leeds University, 1912	4 "	180	
11. " K. P. Mitra ..	" " History	M.A., 3rd Class (English), 1908; M.A., 1st Class (History), 1914.	2 "	160	
12. Maulvi A. Majid ..	Lecturer in Persian	Holds diploma awarded by Ulemas of Lucknow and Delhi.	14 "	170	Allowance for lecturing on Urdu, Rs. 30.
13. Pandit S. P. Pande ..	" " Sanskrit	Kavyatirtha, Calcutta University, 1892.	8 "	180	Allowance for lecturing on Hindi, Rs. 30.
14. Babu K. B. Gupta ..	" " English	M.A., 2nd Class, 1911 ..	6 "	170	Allowance for lecturing on Bengali, Rs. 20.
15. " N. D. Banerji ..	" " Mathematics	M.A., 3rd Class, 1911 ..	5 "	150	
16. " H. C. Mukherji ..	" " English	M.A., 2nd Class, 1913 ..	3 "	130	
17. Maulvi A. Ahmad ..	" " Persian	M.A., 2nd Class, 1904 ..	2 "	140	Allowance for lecturing on Urdu, Rs. 20.
18. Babu B. N. Mukherji ..	" " History	M.A., 2nd Class, 1914 ..	One year.	110	
19. " B. N. Kanjilal ..	" " Logic	M.A., 2nd Class, 1917 ..	Apptd. this year.	100	
20. " S. K. Datta ..	" " English	M.A., 2nd Class, 1917 ..	" " "	100	
21. " P. L. Chatterji ..	Demonstrator in Chemistry.	B.A., 1902; passed Higher Agricultural Examination of the Sibpur Engineering College.	9 years.	150	
22. " S. M. Datta ..	" " Physics	M.Sc., 1st Class, 1915 ..	3 "	120	
23. Mr. B. B. Kripalani ..	Tutor in English	B.A. (Hons.), Bombay Univ., 1916.	Apptd. this year.	80	

APPENDIX III.

Weekly Curriculum of Teaching in Arts Subjects, 1918-19.

Class.	Name of Teacher.	No. of Lectures.	No. of Tutorial Periods.	No. of Students in Class.	No. of Tutorial Batches.
ENGLISH.					
Fourth year ..	Principal ..	3	..	..	..
	Prof. I. C. Misra ..	2	5	123	8
Third year ..	Babu K. B. Gupta ..	2	2	..	..
	„ H. C. Mukherji ..	2	1	..	..
	Principal ..	3	..	..	..
Second year .. (two sections)	Prof. I. C. Misra ..	2	..	..	..
	Babu H. C. Mukherji ..	2	3	110	7
	„ K. B. Gupta ..	..	4	..	..
	Principal ..	2+2	..	..	..
First year .. (two sections)	Babu K. B. Gupta ..	2+2	..	..	..
	„ H. C. Mukherji ..	1+1	2	175*	14
	„ S. K. Gupta ..	..	4	..	..
	Mr. B. B. Kripalani ..	..	8	..	..
	Prof. I. C. Misra ..	2+2	..	..	..
Fourth year ..	Babu H. C. Mukherji ..	1+1	..	..	..
	„ S. K. Gupta ..	2+2	6	195*	14
	„ K. B. Gupta ..	..	2	..	..
	Mr. B. B. Kripalani ..	..	6	..	..
SANSKRIT.					
Fourth year ..	Prof. K. C. Chakravarty ..	2	2	} 45	3
	Pandit T. P. Pandey ..	2	1		
Third year ..	Prof. K. C. Chakravarty ..	2	2	} 45	2
	Pandit T. P. Pandey ..	2	..		
Second year ..	Prof. K. C. Chakravarty ..	2	2	} 90	5
	Pandit T. P. Pandey ..	2	3		
First year ..	Prof. K. C. Chakravarty ..	2	3	} 112	6
	Pandit T. P. Pandey ..	2	3		
PERSIAN.					
Fourth year ..	Maulvi A. Majid ..	2	2	} 43	3
	„ A. Ahmad ..	2	1		
Third year ..	„ A. Majid ..	2	1	} 40	2
	„ A. Ahmad ..	2	1		
Second year ..	„ A. Majid ..	2	2	} 64	4
	„ A. Ahmad ..	2	2		
First year ..	„ A. Majid ..	2	1	} 58	3
	„ A. Ahmad ..	2	2		
HISTORY.					
Fourth year ..	Prof. K. P. Mitra ..	2	1	} 48	2
	Babu B. N. Mukherji ..	2	1		
Third year ..	Prof. K. P. Mitra ..	1	1	} 42	2
	Babu B. N. Mukherji ..	3	1		
Second year ..	Prof. K. P. Mitra ..	2	2	} 55	3
	Babu B. N. Mukherji ..	2	1		
First year ..	Prof. K. P. Mitra ..	3	2	} 77	5
	Babu B. N. Mukherji ..	1	3		

* Including I.Sc. students.

APPENDIX III—concl'd.

Weekly Curriculum of Teaching in Arts Subjects, 1918-19.

Class.	Name of Teacher.	No. of Lectures.	No. of Tutorial Periods.	No. of Students in Class.	No. of Tutorial Batches.
PHILOSOPHY AND LOGIC.					
Fourth year ..	Prof. B. C. Sinha ..	2	3	} 53	3
	„ P. S. Bose ..	3	..		
Third year ..	„ B. C. Sinha ..	2	3	} 57	3
	„ P. S. Bose ..	3	..		
Second year .. (two sections)	„ B. C. Sinha ..	3+3	10	161	10
First year .. (two sections)	Babu B. N. Kanjilal ..	3+3	10	193	10
MATHEMATICS.					
Fourth year ..	Prof. G. B. Mitra ..	2	1	} 34	2
	Babu N. D. Banerji ..	2	1		
Third year ..	Prof. G. B. Mitra ..	2	1	} 31	2
	Babu N. D. Banerji ..	2	1		
Second year ..	Prof. G. B. Mitra ..	2	3	} 143*	6
	Babu N. D. Banerji ..	2	3		
First year ..	Prof. G. B. Mitra ..	2	3	} 134*	6
	Babu N. D. Banerji ..	2	3		
ECONOMICS.					
Fourth year ..	Prof. T. N. Bose ..	4	2	26	2
Third year ..	„ „ „ ..	5	1	8	1

* Including I.Sc. students.

Note.—In addition to the above one lecture is delivered weekly on the vernaculars in each class.

APPENDIX IV.

Results in University Examinations, 1917 and 1918.

	SUBJECT.								Results as a whole.
	English.	Sanskrit.	Persian.	History.	Logic and Philosophy.	Mathematics.	Economics.	Chemistry.	

I.A. EXAMINATION, 1917.

No. of candidates who appeared.	192	100	63	69	185	59	..	100	No. in (English) class .. 208
No. who passed ..	105	92	59	56	153	54	..	83	No. sent up(a) .. 197
Percentage of passes	54.0	92	93.6	81.1	82.7	91.5	..	83	No. appeared .. 192
No. who failed in this subject only.	34	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	3	No. who passed .. 105
									Percentage of passes on no. who appeared .. 54.7

I.A. EXAMINATION, 1918.

No. of candidates who appeared.	187	90	64	77	180	65	..	88	No. in (English) class .. 238
No. who passed ..	166	61	62	59	130	58	..	73	No. sent up(b) .. 194
Percentage of passes	88.7	67.7	96.8	76.6	72.2	89.2	..	82.9	No. appeared .. 187
No. who failed in this subject only.	3	11	<i>Nil</i>	1	8	1	..	4	No. who passed .. 111
									Percentage of passes on no. who appeared .. 59.3

B.A. EXAMINATION, 1917.

No. of candidates who appeared.	87	26	23	40	42	16	22	5	No. in (English) class .. 106
No. who passed ..	46	25	19	30	34	15	8	2	No. sent up(c) .. 101
Percentage of passes	52.8	96.1	82.6	75	80.9	93.7	36.3	40	No. who appeared .. 87
No. who failed in this subject only.	7	1	<i>Nil</i>	3	3	<i>Nil</i>	2	<i>Nil</i>	No. who passed .. 46
									Percentage of passes on no. who appeared .. 52.9

B.A. EXAMINATION, 1918.

No. of candidates who appeared.	109	32	37	51	43	18	28	..	No. in (English) class .. 135
No. who passed ..	58	28	35	43	24	14	8	..	No. sent up(d) .. 123
Percentage of passes	53.2	87.5	94.6	84.3	55.8	77.7	28.5	..	No. who appeared .. 109
No. who failed in this subject only.	7	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	3	1	2	..	No. who passed .. 45
									Percentage of passes on no. who appeared .. 41.3

IV.

REPORT

ON

BEHAR NATIONAL COLLEGE, BANKIPORE,

FOR 1918-19.

The College was affiliated to Calcutta University in the following subjects up to the standards mentioned :—

B.A.—English (Pass), Vernacular Composition, Philosophy (Pass), Mathematics (Pass), Sanskrit (Pass), Persian (Pass), History (Pass), Chemistry (Pass), Physics (Pass).

B.Sc.—Physics (Pass), Chemistry (Pass), Mathematics (Pass).

Intermediate—English, Vernacular Composition, Sanskrit, Persian, History, Logic, Mathematics, Chemistry, Physics.

(Inspected on September the 25th and 26th, 1918, by the Rev. J. C. Forrester and Mr. E. A. Horne, and by Dr. K. S. Caldwell on the 7th and 8th November, 1918.)

I. GENERAL.

ADMINISTRATION.

1. The Governing Body of the College is regularly constituted, and consists of the following gentlemen :—

- (1) The Hon'ble Mr. C. E. A. W. Oldham, C.S.I., I.C.S., President.
- (2) Babu Dwarka Prasad Singh, Secretary.
- (3) The Principal, Assistant Secretary (*ex-officio* member).
- (4) The Hon'ble Khan Bahadur S. M. Fakhruddin, B.A., B.L.
- (5) The Hon'ble Mr. J. G. Jennings, M.A.
- (6) The Inspector of Schools, Patna Division (*ex-officio* member).
- (7) The Rev. G. J. Dann.
- (8) The Hon'ble Rai Bahadur Krishna Sahay, B.A., B.L.
- (9) Mr. Sachchidanand Sinha, Bar-at-Law.
- (10) Babu Rajendra Prasad, M.A., M.L.
- (11) Professor L. K. Ghosh, M.A.

There were six meetings of the Governing Body during the session 1917-18; and this term it has met three times.

2. The Professors' Advisory Committee is composed of the teaching staff, and meets two or three times each term as occasion requires. During the session 1917-18 there were seven meetings; and there have been three meetings this term. Its functions are to advise the Principal in matters connected with discipline and teaching and with the social life of the College. The standard of College examinations and tutorial arrangements are discussed.

3. On the clerical staff are (1) a head clerk and cashier on a salary of Rs. 48 per mensem; (2) an accountant on Rs. 24; (3) a correspondence clerk on Rs. 34; and (4) a paid probationer and typist on Rs. 10. The staff is adequate, and apparently efficient, as the books are well kept and up to date, and letters duly filed.

4. We inspected the following registers and books :—

- (1) Proceedings of the Governing Body.
- (2) " " " " Professors' Advisory Committee.

- (3) Admission Register.
- (4) Register of Transfer Certificates.
- (5) Attendance Register.
- (6) Conduct Register.
- (7) Cash Books.

There is no separate marks' register. The marks obtained in College examinations are entered in a column of the attendance registers. No remarks are needed with regard to the first six heads above, the various registers and books being clearly written and kept up to date. The system of accounts is good. Receipts are lodged in the Bank of Bengal every day, and all payments are made by cheques on the bank, with the exception of very small contingent expenses to meet which a small amount of cash is kept in the College safe. Even for such small items as Rs. 8-13-0 (purchase of book for Library) a separate cheque has to be drawn on the bank, though sometimes a cheque may be drawn for the total amount of several small items. Receipts and vouchers for payment are kept. The cashier's daily diary is regularly kept and inspected by the Principal, as are also the other cash books. For special funds, such as those of the Mutual Aid Society, the Magazine, Athletic Club and the like, it would be useful to keep a ledger account, so that any balance to credit at the end of the year might be carried over to credit in the ensuing year. At present credit balances, belonging to special funds, appear to be absorbed into the College general funds. The same is true of debtor balances. The accounts are audited yearly by the Principal or one of the Professors. No allowance is made to the auditor. It would be more useful if a professional auditor, or some qualified accountant not connected with the College, were employed.

5. There is no Provident Fund connected with the College. Steps should be taken to establish a Provident Fund.

6. The Mutual Aid Society is a students' society. Membership is voluntary; but about 700 students of the College belong to the Society. The subscription is two pice a month. The object of the Society is to help poor and deserving students. It is managed by a President (the Principal), a Vice-President (one of the Professors), and the Secretary, who is a student elected by his fellows. Grants are made, payable through the office in reduction of fees; medical aid is given; and plans are now being matured to provide work such as horticulture and typewriting, whereby students in need of help will be enabled to earn money. This is an admirable society; and similar societies might with advantage be established elsewhere.

FINANCE.

7. The fee for Arts students is Rs. 4-8, with effect from the beginning of this session; formerly it was Rs. 4 only. An extra charge of As. 8 is made for science classes. The admission fee is equal to the monthly tuition fee. All students must pay Re. 1 per annum to the Common Room and Athletic Club, and Re. 1 towards the cost of conducting College examinations. Contributions to the Mutual Aid Society (two pice a month) and to the Magazine (one anna a month) are voluntary. The main source of income is fees, the amounts realized in 1915-16, 1916-17, 1917-18, respectively, being Rs. 26,693, Rs. 28,509, and Rs. 29,857. The estimated receipts from this source for the current year are Rs. 42,430. The fee income being of outstanding importance, there is a great temptation for the College authorities to admit as many students as possible. There are now altogether 875 students on the rolls. Such a large number of students will ensure a large fee income; but (a) it is very doubtful whether colleges of this size can really be efficient, and (b) an increase in the fee income due to an increase in numbers affords only an apparent advantage, since there must be a corresponding increase in staff, the cost of which cannot fully be met by the increase of fees. If the present numbers be maintained, an addition of at least four members to the Arts staff must be made (see para. 17 below), involving additional expenditure of approximately Rs. 4,000 per annum. Taking the following Revised Budget

Estimate as our guide, the required addition to the teaching staff will turn the estimated credit balance of Rs. 1,950 into a deficit of Rs. 2,050.

<i>Revised estimate of Receipts</i>		<i>of Expenditure, 1918-19.</i>	
	Rs.		Rs.
Fees	42,430	Teaching Staff	45,780
Government Grant	12,000	Clerical ,,	1,742
Subscriptions	2,000	Menial ,,	1,274
Miscellaneous	50	Scholarships	666
		Laboratories	2,000
		Library	1,000
		Workshop	408
		Furniture	200
		Repairs	100
		Taxes	360
		Contingencies	1,000
TOTAL	56,480	TOTAL	54,530

Such being the position, we recommend that the number of students should not be allowed to exceed 700, in which case provision for the surplus must be made elsewhere.

Some further particulars regarding the finances of the College are given in Appendix I.

BUILDINGS.

8. It is unfortunate that the College is situated in a congested area, but we note with pleasure that the grounds of the College are neatly laid out, and that attention is paid to the cultivation of flowers and shrubs. There are four large class-rooms, one for each year. Two rooms are devoted to work in Experimental Psychology. There is a vacant room of fair size which will serve for tutorial classes. The small rooms in the Library line will also do well for this purpose. Unless the number of students is increased, the existing accommodation will suffice for class work. There is no hall, or room large enough to hold all the students. Such a hall is a necessity for true collegiate life. This might serve also as a large reading room. The present Common Room can hold only about 50 students; and as during one period (1.15-2.5 P.M.) upwards of 400 students have leisure, and in almost every period a very large number, this means that those who cannot find a seat in the Common Room have to loiter about the compound or in the bazar, while on wet days the congestion and disturbance in the verandahs must be appalling. Some better provision for students in their leisure periods is most urgently needed.

9. The furniture, lighting, ventilation and sanitary arrangements are satisfactory. Very nice single and double-seated desks have been procured, which we were told were made locally. More of these desks will be bought at an early date for furnishing tutorial rooms. We do not think that there is room to put any more furniture in the class-rooms at present in use; and the seating accommodation is far from adequate. The only way to remedy this is to reduce the number of students in the classes.

LIBRARY.

10. A one-storied line, formerly containing wards of the Female Hospital, has recently been acquired by the College. It consists of a number of small rooms each about 12 feet square. Each room is used to house one or more sections of the Library. Thus one room contains the books in History and Economics; another those in Philosophy, and so on. There will shortly be a number of one-seated desks placed in each room; and these rooms will be used (a) for tutorial classes, (b) for students to read in. The Sanskrit and Pali collections, which are admirable so far as we could judge, are kept in the committee-room in the Principal's Office. The Chemistry and Physics

sections are kept in their respective departments, and are under the care of the Professors concerned. The English collection is good; but literature of a somewhat slight and popular character appears to occupy a disproportionate place on the shelves. The Philosophy section is distinctly good. There is a most useful collection of books dealing with the Antiquities of India. A sum of Rs. 1,000 is spent annually from College funds on the purchase of books, these being purchased as a rule through the "Times Book Club." Last year 388 books were purchased for the Library, of which 279 were Sanskrit and Pali books or books dealing with Indian Antiquities. The Library now contains altogether 5058 volumes. It is good to see that the Library is well used by Professors and students alike, many of the former reading advanced books in their own subjects, and other books as well, while about 300 books are issued monthly to students for home reading. With the exception of scholarship-holders and science students, every student has to make a deposit of Rs. 5 before he is allowed to borrow books for home reading. This rule is rigidly enforced. Fines are also levied if books are not returned within seven days. By these means loss is almost entirely prevented.

TEACHING STAFF.

11. Particulars as to the qualifications, period of service, and present pay of members of the teaching staff will be found in Appendix II. The salaries paid are on the scale laid down by Government for colleges in receipt of a grant-in-aid. There were three changes in the staff during the session 1917-18. Babu C. T. Mitra, M.A., was appointed Professor of English in October, 1917, in place of Babu H. C. Chakladar, and Pandit Ashutosh Sen Gupta, M.A., was appointed Lecturer in Sanskrit in place of Pandit A. K. Bhattacharya in December, 1917. Babu H. M. Das Gupta, M.A., was appointed in December, 1917, an additional Lecturer in English, bringing up the total strength of the English staff to four. Two further additional appointments have been made this session. Babu S. N. Ray, M.A., has been appointed an additional Lecturer in Philosophy and Logic, bringing up the total strength to the staff in that subject to four, including the Principal. He joined the staff about a week before the date of our inspection. Babu S. N. Sen Gupta, M.A., has been appointed an additional Lecturer in English, bringing up the staff to five. He had not yet joined at the time of our inspection. In addition, Babu Maheshwari Sahai joined the staff as laboratory assistant in Experimental Psychology on August 31st, 1918.

COLLEGE CURRICULUM IN ARTS SUBJECTS.

12. Detailed particulars with regard to the weekly curriculum followed in each subject will be found in Appendix III. Provision is made for the following subjects and combinations of subjects in the B.A. classes:—

English, Vernacular Composition, a Classical Language and History *or* Philosophy *or* Mathematics.

English, Vernacular Composition, History and Philosophy *or* Mathematics.

English, Vernacular Composition, Philosophy and Mathematics.

This permits of six possible combinations. In the Í.A. classes there is provision for the following:—

English, Vernacular Composition, Logic, a Classical Language and History *or* Mathematics *or* Chemistry.

English, Vernacular Composition, Logic, History and Mathematics *or* Chemistry.

English, Vernacular Composition, Logic, Mathematics and Chemistry.

English, Vernacular Composition, a Classical Language, History and Mathematics *or* Chemistry.

English, Vernacular Composition, a Classical Language, Mathematics and Chemistry.

English, Vernacular Composition, History, Mathematics and Chemistry.

This permits of no less than ten possible combinations. It will probably be found necessary to restrict the choice of subjects considerably, if it is to be possible to frame a routine providing for tutorial instruction in all

subjects in accordance with the Regulations. For Chemistry will be substituted Elementary Physics and Chemistry, as soon as this course has been definitely introduced by the University.

13. The number of periods of College work, according to the combination of subjects taken up, is given below for each year. Each period is of 50 minutes.

Fourth Year.

If the course includes Philosophy	..	lectures : 18	} 18 periods.
		tutorials : <i>nil</i>	
.. .. does not include Philosophy	..	lectures : 17	} 17 ..
		tutorials : <i>nil</i>	

Third Year.

If the course includes Philosophy	..	lectures : 17	} 17 periods.
		tutorials : <i>nil</i>	
.. .. does not include Philosophy	..	lectures : 16	} 16 ..
		tutorials : <i>nil</i>	

At the time of our inspection no tutorial instruction was being given in any subject in the third or fourth year classes. Allowing for three tutorial periods a week, this brings up the total to 20 or 21 periods a week in the fourth year, and to 19 or 20 periods a week in the third year. This is not too much. At present six lectures are given in English in the fourth year class, and five lectures in the third year class. In Philosophy six lectures are given in each class, and in other subjects five lectures. Finally, one lecture a week is given in Vernacular Composition.

Second Year.

If the course includes Chemistry but not Classical Language.		lectures : 23	} 26 periods.
		tutorials and practicals : 3	
If the course includes Chemistry and a Classical Language.		lectures : 22	} 25 ..
		tutorials and practicals : 3	
If the course includes a Classical Language but not Chemistry.		lectures : 24	} 25 ..
		tutorials : 1	
If the course includes <i>neither</i> Chemistry <i>nor</i> a Classical Language.		lectures : 25	} 26 ..
		tutorials : 1	

This is a heavy time-table. At the time of our inspection tutorial instruction was being given only in English. When it is given in each subject, the number of periods of College work will come up to 28 or 29. This is too much. In our opinion a student should not be required to do more than three or at most four periods of work at College daily on the average. At present six lectures and one tutorial are given in English. One of the lecture hours is devoted to a weekly class exercise. This is also the practice in Logic, History and Mathematics, but no provision for tutorial instruction in these subjects, or in Sanskrit and Persian, had been made up to the time of our inspection. In Chemistry there are four lectures and two periods for practical work; in the Classical Languages five lectures; and one lecture in each of the Vernaculars.

First Year.

If the course includes Logic and Chemistry	..	lectures : 19	} 19 periods.
		tutorials or practicals : <i>nil</i>	
.. .. <i>either</i> Logic <i>or</i> Chemistry	..	lectures : 20	} 20 ..
		tutorials or practicals : <i>nil</i>	
.. .. <i>neither</i> Logic <i>nor</i> Chemistry		lectures : 21	} 21 ..
		tutorials or practicals : <i>nil</i>	

At the time of our inspection no tutorial instruction was being given in any subject, nor was any practical work being done in Chemistry. When full provision has been made for this, the total will rise to 24 or 25 periods a week.

14. We may compare the present time-table (a) as framed at the time of hour inspection, and (b) when full provision has been made for tutorial and practical work with that in force at the time of the last inspection under the Calcutta University (November 1914).

	1914-15.	1918-19.	(b)
		(a)	
Fourth year	.. 18 to 20 periods	17 to 18 periods	20 to 21 periods.
Third year	.. 15 to 19 ,,	16 to 17 ,,	19 to 20 ,,
Second year	.. 25 to 29 ,,	25 to 26 ,,	28 to 29 ,,
First year	.. 20 to 24 ,,	19 to 21 ,,	24 to 25 ,,

15. Teaching work is distributed amongst the various members of the staff as under:—

Subject.	Name of Teacher.	No. of Lectures.	No. of Tutorial Periods.	Total.
English	Prof. M. Haq	12	5	17
	„ C. Mitra	12	5	17
	Babu B. N. Varma	11	5	16
	„ H. M. Das Gupta	10	5	15
Sanskrit and Vernaculars.	Prof. A. Thakur	8	..	8
	Pandit A. Sen Gupta	10	(and 2 in Bengali)	10
	„ D. K. Sarma	2	(and 2 in Bengali)	12
Persian and Urdu.	Prof. S. G. Taqi	15	(and 4 in Hindi)	6
	Maulvi Ismatullah	15	..	15
History	Prof. H. C. R. Chaudhuri	16	..	16
	Babu J. N. Sikdar	16	..	16
Philosophy and Logic.	Principal	4	..	4
	Prof. G. P. Hazari	12	..	12
	Babu N. M. Ghosh	13	..	13
Mathematics	„ S. N. Ray	15	..	15
	Prof. L. K. Ghosh	14	..	14
	Babu U. C. Datta	13	..	13

16. At the time of our inspection, as has already been mentioned, tutorial work had been started only in English in the second year class; and even here the regulations have only partially been complied with, since the numbers in this class (as can be seen by referring to Appendix III) require 27 tutorial batches to be formed, whereas the number actually formed is 20 only. The Principal pointed out practical difficulties but we feel that a greater effort might have been made to conform with the conditions of study laid down in Chapter XXIV of the Regulations from the beginning of the current session. It is true that the present teaching staff is not adequate to fulfil these conditions fully. But even with the present staff tutorial classes might have been formed in Persian, History and Mathematics in the B.A. classes, and in Sanskrit in all classes, besides the full number of tutorial batches in English in the second year class. This would have involved the formation of 40 additional batches in all; and there was no insuperable difficulty, as far as we can see, in providing class-room accommodation for this limited number.

17. So much for the present. Turning now to the future, the problem of arranging for the necessary tutorial instruction throughout the College is partly one of class-room accommodation, and partly one of staff. The first, we think, need cause the College authorities no anxiety. The College is now in possession of an additional block of buildings, containing four rooms

admirably suited for tutorial class-rooms. A fifth can be provided in the same block by enclosing a passage; and this work should be put in hand at once. In the old building there is one room vacant, which can serve quite well for tutorial classes; and, until the fifth class-room in the additional block is ready, it might be possible to spare, if necessary, one of the two rooms at present set apart for laboratory work in experimental psychology. With six tutorial class-rooms, together with the occasional use for tutorial classes of one or other of the six lecture-rooms when not required for a lecture, the task of providing accommodation for tutorial classes, even on the basis of the present numbers, should not present much difficulty. These tutorial class-rooms still remain unfurnished, however. The furniture has been ordered, but is not yet ready. Next, as regards staff. Two additions have been made in the current session, one in English and one in Logic. (See para. 11 above). This, however, is not sufficient. A synopsis of the requirements in each subject is given below. It is assumed for the present that the average number of lectures per week in each subject and in each class, or section of a class, will be four. This represents a reduction of one and, in many cases, two lectures, as compared with the present time-table. The estimate as regards tutorials is based on the numbers on the rolls at the date of our inspection, allowing one tutorial period in each subject per week per student in batches of not more than 15 students. Lastly, we have proceeded on the assumption that 18 periods per week is a fair average to ask of College teachers, in view of the fact that an efficient tutorial system involves a considerable amount of correction work at home.

Subject.	No. of Lectures.	No. of Tutorials.	Total.	No. of Teachers required.	Present No.
English	32	57	89	5	5
Sanskrit, Hindi and Bengali	24	18	42	2·3	3
Persian and Urdu	25	32	57	3·2	2
History	24	26	50	2·8	2
Philosophy and Logic	32	44	76	4·2	3·25*
Mathematics	20	21	41	2·3	2

From the above table it is evident that two extra men are required immediately, one in Philosophy and Logic and the other in Persian. The latter is not, properly speaking, an addition to the staff, since formerly there used to be three teachers of Persian and Urdu. With regard to other subjects, an extra man will be required both in History and in Mathematics if the number of students remains at its present level; and an extra man will be wanted in English and a second extra man in Philosophy and Logic if the number is allowed to rise above its present level. We have spoken elsewhere of the desirability of reducing, and fixing a definite limit to the numbers admitted in this College. Accordingly we recommend that the Governing Body be asked (a) to appoint an additional lecturer in Philosophy and Logic, bringing up the total strength of the staff in that subject to five, including the Principal; (b) to appoint an additional lecturer in Persian and Urdu, bringing up the total to three; and (c) from next session to limit the numbers admitted as recommended in paragraph 7 above.

18. As already mentioned, there are weekly class exercises in English, Logic, History and Mathematics in the second year class. In the other classes there are monthly class-exercises; and in the fourth year class, we understand, these are to be made weekly exercises after the Puja holidays. These exercises are corrected and marked. The mistakes and omissions made will, it is proposed, afford the principal subject-matter for tutorial instruction; and this plan is being followed in the tutorial classes already formed. Further remarks on this head will be found in the Supplementary Note on the subject of tutorial instruction.

* The Principal teaches four periods a week at present.

ADMISSION TO HONOURS TEACHING.

19. Application has been made for the admission of the College to Honours teaching in two Arts subjects, *viz.* in Philosophy and Sanskrit. As regards the policy of admitting external colleges to Honours teaching, we may refer to what we have said on this point in paragraph 19 of our report on the T.N.J. College, Bhagalpur. As long as Honours classes continue to be held, with the University's sanction, at Ravenshaw College and at St. Columba's College, other external colleges will quite naturally press their claims to a share in this higher teaching. But we think it ought to be clearly understood that any recognition of these claims on the part of the University is in the nature of a provisional measure only, and does not prejudice the question as to the future location of Honours work which can only be decided after the central University has come into being. As regards the application before us, students desiring to take Honours in Sanskrit can attend the Honours classes at Patna College (an inter-collegiate arrangement being possible similar to that which obtains in English and Mathematics), but this arrangement presents difficulties. The present senior professor of Sanskrit, Pandit Amareshwar Thakur, is highly qualified; the Principal himself takes a strong personal interest in Sanskrit and Pali studies, and during the last few years a large collection of works in these branches of learning has been formed. For these reasons we view favourably the application for admission to Honours teaching in Sanskrit. The distribution of work proposed is as shown below. We think that a greater share of the Honours teaching might with advantage be allotted to the senior professor of the subject.

	PANDIT A. THAKUR.		PANDIT A. SEN GUPTA.		PANDIT D. K. SARMA.	
	Lectures.	Tutorials.	Lectures.	Tutorials.	Lectures.	Tutorials.
Fourth year Hons. ..	2	1	2	..	..	..
" " Pass ..	2	2	2	..	..	..
Third year Hons. ..	2	0	2	1	..	..
" " Pass ..	2	1	2	..	..	..
Second year, Sect. A	1	..	3	..	..	4
" " " B..	1	..	3	..	..	4
First year ..	2	..	1	..	..	6
Hindi Classes ..	..	..	..	..	1	..
Bengali " " ..	2	..	2	..	4	..
	14	4	17	1	5	14
	18 periods.		18 periods.		19 periods.	

20. We do not recommend the admission of the College to Honours teaching in Philosophy with the present staff. The Library contains a good collection of philosophical works; and a beginning is being made under the guidance of the Principal whose interest in the subject is well-known, with laboratory work in Experimental Psychology. But the present teaching staff is not strong enough, numerically, to cope even with the Pass work in Philosophy and Logic. An addition to the staff, as we have shown in paragraph 17 above, is necessary in any case; and we consider that, if the College wishes to press its claims to admission in this subject to the Honours standard, the additional teacher should be a man of first-rate qualifications. In a large college like this the Principal cannot devote more than an hour a day at the most to teaching, unless his other and even more important work is to suffer; and it seems to us essential that, if Honours work on a high level is to be aimed at, Principal Sen should have associated with him a colleague of high qualifications.

NUMERICAL STRENGTH.

21. The average monthly number on the rolls, and the average daily attendance during the last two years are as under :—

	Average Monthly No.	Average Daily Attendance.
1916-17	565	484
1917-18	680	585

These numbers include Science as well as Arts students. In 1906-07 the average strength was 87. The growth of numbers during the last complete quinquennial period is shown in table given below. In every case the number given is the average monthly number on the rolls, including both Science and Arts students.

1913-14	436
1914-15	520
1915-16	533
1916-17	565
1917-18	680

The total number of students on the rolls at the date of our inspection was 875.

RESULTS IN UNIVERSITY EXAMINATIONS.

22. A full analysis of the results in each subject at the I.A. and B.A. examinations conducted by the Patna University this year, and at the same examinations conducted by the Calcutta University in 1917, is contained in Appendix IV. The percentage of passes in the I.A. and B.A. examinations amongst candidates from this College, together with the corresponding percentage for candidates from Bihar and Orissa as a whole, during the last five years is shown below. The Principal considers that these results can be improved by raising the standard of the Test Examination. The pass marks have hitherto been 20 per cent. in each subject; this he proposes to increase to 25 per cent. in future.

	I.A.		B.A.	
	College.	Province.	College.	Province.
1914	19.4	(32.2)	30.0	(40.8)
1915	23.7	(47.2)	46.7	(54.4)
1916	21.7	(46.3)	42.8	(52.9)
1917	27.7	(41.07)	40.3	(47.2)
1918	26.9	(50.7)	38.7	(42.2)

COLLEGIATE LIFE.

23. The College is much handicapped by the lack of a hall in which the whole body of students can from time to time assemble; also from the lack of any playing-fields apart from the field reserved for the use of the College on the public Maidan, and two tennis courts in the College compound, one of which is meant for Professors and the other for hostel boarders. It is difficult, under such conditions, to create any sense of corporate life, especially when only 40 out of nearly 900 students live in hostels attached to the College, the rest being scattered throughout the town and city. Nevertheless, the Principal and staff are to be congratulated on the success with which, under these most unpromising conditions, they have enlisted the interest of a certain number of students, at any rate, in various fields of activity. Thus the Debating Society, of which the Principal is President and Babu N. M. Ghosh Vice-president, held ten debates during the session 1917-18. Two dramatic performances were given under the auspices of the Dramatic Society, one of a Bengali and the other of an Urdu play. An Historical Society was started last December, of which Babu J. N. Sikdar is Secretary. An expedition was made to Rajgir, in which 15 students took part, and two meetings were held at which papers on historical subjects were read by students. This year Babu J. N. Sikdar has been delivering some lectures of a historical character on the War under the auspices of the Society. In

athletics the College distinguished itself last session by carrying of several local trophies ; and although the playing fields available for College games are wholly inadequate, there is much keenness and *esprit de corps* felt by the general body of the students in following the fortunes of the College hockey and football teams. The annual subscription to Athletics and the Common Room is one rupee per student. A magazine has lately been started, the first two numbers of which are excellent. The subscription (for students) is one anna per month, paid along with fees.

24. Mention should also be made under this head of a learned society, which has its home, as it had its genesis, in the College. This is the Pali and Buddhistic Study Society, of which the Vice-Chancellor is the President, and membership of which is open to all teachers in the University. This promises to do good work, and no less than three articles, representing the result of researches made by the Principal and another member of the staff under the auspices of the Society, appeared in the Journal of the Bihar and Orissa Research Society for June 1918.

STATE OF DISCIPLINE.

25. Considering the difficulties of maintaining good order among so large a number of students under most unfavourable conditions, discipline appears to be well maintained. Exemplary punishment is given, when occasion requires it.

RESIDENCE OF STUDENTS.

26. The vast majority of the students live with their parents or guardians. No systematic investigation has yet been made of the conditions under which these students live. We understand that a Students' Residence Committee will shortly take this work in hand.

27. Two private bungalows have been acquired by the College for use as hostels. They are airy, well-lighted houses. One is used for Hindu students, and can accommodate 25 boarders ; and the other, which accommodates 14 boarders, is used for Muhammadans. There is in each case a resident Superintendent, a member of the staff. One gets an allowance of Rs. 25 per mensem (with free quarters); the other an allowance of Rs. 15. The sanitary arrangements are satisfactory. There is an arrangement for medical attendance when required. The roll is called twice daily ; and a leave register is kept. Conduct registers are kept. In one case there were no entries this term ; we were informed that no misdemeanour had been committed. The charges are as follows. For a single room a rent of Rs. 3-8 is charged ; rent in a room for four students is Rs. 3 a head. There is a light-charge of Re. 1 ; the hostels have electric light. In the Hindu hostel there are two messes managed by the students. For a member of the Bengali mess monthly expenses, inclusive of hostel charges, amount to Rs. 17-8 ; and for a member of the Bihari mess to Rs. 13 on an average. These sums do not include personal charges such as those for dhobi, etc. In the Muhammadan hostel messing and hostel charges average about Rs. 14-8. A grant of Rs. 50 per month is received from the District Board towards the upkeep of these hostels, which are therefore no charge upon the College. Some form of physical exercise must be taken by every boarder daily. These two hostels are situated within the College compound. On the west side of the College compound, separated by a public road, Government has acquired a bungalow, standing in a large compound, at a cost of Rs. 22,000. This will be lent to the College for use as a hostel, and will accommodate about 43 students. Even with this additional hostel there will not be nearly sufficient provision made for the residence of students.

28. There are no attached messes.

II. PHYSICAL LABORATORY.**29. PHYSICS STAFF.**

Name.	Post held.	Academic Qualification.	Detail of Service.	Other Experience.
Debendra Kumar Bhattacharya	Professor of Physics.	M.Sc. in Physics, I Class, Calcutta University in the year 1916.	Appointed in Feb. 1917 (Rs. 150-10-250).	Previous to his appointment here he was a demonstrator for one month in the Presidency College, Calcutta.
M. K. Bhambhani	Professor of Physics.	M.A. II Class, Bombay University, 1906.	Appointed in Aug. 1911 on Rs. 125. Now he is on the grade (Rs. 150-10-250). Fellow D. J. Sind College, Karachi.	Prof. of Physics in Bareilly College affiliated to the Allahabad University.
Brajanandan Sahai	Supervisor of workshop and Laboratory Assistant.	B.Sc. (Calcutta University), 1916. Going to appear at the M.Sc. exam. in Physics of the Cal. University in 1919.	Appointed in July 1911. Now he is in the grade (Rs. 50-5-75).	....

MENIAL STAFF.

	Pay.
1 Bearer	Rs. 9
1 Bearer	„ 7

30. GRANTS.

	Rs.
Annual grants .. { 1916-17	1,000
{ 1917-18	500
{ 1918-19	500
Special grants .. { 1917-18	2,000
{ „	1,000, for workshop.
{ 1918-19	Not yet allotted.

31. APPARATUS.

Condition of apparatus	Good.
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32. DIMENSIONS OF ROOMS.

Laboratories well equipped and well looked after.

Two main laboratories for I.Sc. work and general B.Sc. work measuring	{ 40' × 20' and 40' × 28'
Optical Room	14' × 12'
Two Electrical Rooms, each	14' × 12'
Battery Room	17½' × 12'
Engine Room	25' × 11½'
Workshop	{ 19' × 11½' plus 12' × 11½'

Lecture Room—Physics and Chemistry share the same lecture room. See remarks under Chemistry.

There is ample accommodation in the laboratories for the numbers taking Physics.

Number of students on the rolls:—

First year	..	..	..	..	..	33
Second year	..	..	..	..	..	54
Third year	..	..	..	..	..	14
Fourth year	..	..	..	..	..	10

WORKSHOP.

The workshop is efficiently equipped and is doing good work; it is evidently an important part of the Science work of the College. We consider that the Chemical Department should be in a position to make more use of the workshop, and suggest that one of the mistries should be told off to do work for the Chemical Laboratory whenever required; when no such work is needed he would do the other work in hand.

33. PHYSICS LIBRARY.

There should be a regular grant for Physics.

34. JOURNALS.

- (1) Philosophical Magazine from 1913; (2) Science Abstracts, sections A and B, 1913; (3) Nature, 1911; (4) Proceedings of the Royal Society, 1914; (5) Transactions of the Royal Society, 1916; (6) Physical Review, 1916; (7) Astrophysical Journal, 1914; (8) Terrestrial Magnetism and Atmospheric Electricity; (9) Rain records for Government of Bihar and Orissa, 1913.

35. GENERAL ARRANGEMENT OF WORK.

No. of Lecturers	..	..	..	..	2
Assistant	..	..	..	..	1
		I.Sc. Class.		B.Sc. Class.	
		I.	II.	III.	IV.
No. of lectures per week	..	4	4	4	4=16
		Two days of two periods each.		Two days of three periods each.	
		I.	II.	III.	IV.
No. of practical period per week		4	4	6	6 =20

36. LIST OF EXPERIMENTS PERFORMED BY THE INTERMEDIATE CLASS IN PHYSICS.

PRELIMINARY EXPERIMENTS AND GENERAL PROPERTIES OF MATTER.

- Determination of length.
- Determination of areas of—
 - Plane surfaces by measurement.
 - Ellipse and circle by using graph papers.
- Determination of volumes of solid bodies.
- Eye estimation of tenths of a division.
- Use of verniers—
 - Straight.
 - Barometric.
 - Circular.
- Use of callipers.
- Use of Screw Gauge.
- Use of Spherometers.
- Balance—
 - Determination of Resting Point.
 - Weighing by method of oscillations.

- *10. Simple Pendulum.
- *11. Verification of Boyle's Law.
- 12. Setting up Systems of Pulleys.
- 13. Determination of—
 - (a) The Coefficient of Friction.
 - (b) The Angle of Friction.
- 14. Verification of the Law of Parallelogram of Forces.
- 15. Atwood's Machine—Determination of the acceleration of Gravity.

HYDROSTATICS.

- 1. Verification of Archimedes' Principle and the determination of volumes of irregular bodies.
- 2. Specific Gravity of a Solid heavier than water—
 - (a) By Hydrostatic Balance.
 - (b) By Nicholson's Hydrometer.
 - (c) By Jolly's Balance.
- 3. Specific Gravity of a Solid lighter than water by Hydrostatic Balance.
- 4. Specific Gravity of a Liquid—
 - (a) By Hydrostatic Balance.
 - (b) By Nicholson's Hydrometer.
 - (c) By Specific Gravity Bottle.
 - (d) By Hare's apparatus.
 - (e) By Jolly's Balance.
 - (f) By weighing a known volume.

HEAT.

- 1. Determination of fixed points of a Thermometer.
- 2. Determination of the Melting Point of Wax—
 - *(a) Cooling Curve Method.
 - (b) Capillary Method.
- 3. Determination of Water Equivalent of a Calorimeter.
- 4. Determination of Specific Heat of a Solid by Method of Mixtures.
- 5. Determination of the Specific Heat of a Liquid by Method of Mixtures.
- 6. Determination of Latent Heat of Ice.
- 7. Determination of Latent Heat of Steam.

LIGHT.

- 1. Reflection in a Plane Surface. To verify that the Angle of Incidence is equal to the Angle of Reflection by—
 - (a) Pin Method.
 - (b) Parallax Method.
- 2. To verify that the sine of the Angle of Incidence bears to the sine of the Angle of Refraction a constant ratio by using a glass plate.
- 3. Comparison of illuminating Powers of Light—
 - (a) By Rumford's Method.
 - (b) By Bunsen's Method.
- 4. Determination of the focal length of a Concave Mirror—
 - (a) By Parallax Method.
 - (b) By the use of the general formula.
- *5. Determination of the focal length of a Convex Lens by the use of the general formula.
- 6. Experiments with a Prism by Pin Method—
 - (a) To measure the Angle of a Prism.
 - (b) To find the Angle of Minimum Deviation and to calculate the Refractive Index of the material of the Prism.
- 7. Formation of Pure Spectrum.

MAGNETISM.

- 1. Localisation of the Poles of a Bar Magnet.
- 2. Tracing lines of force by a Compass Needle.
 - (a) North pole pointing North.

* Indicates that the results should be plotted on squared papers.

- (b) North pole pointing South.
 - (c) „ „ „ East.
 - (d) „ „ „ West.
3. Tracing Equipotential Surfaces.
 4. Verification of Law of Inverse Squares—Magnetometer.

ELECTRICITY.

1. Experiments to illustrate the use of—
 - (a) Electrophorus.
 - (b) Proof Plane.
 - (c) Gold Leaf Electrocope.
2. Setting up Common Voltaic Cells.
3. Oersted's Experiments.
4. Determination of Internal Resistance of a cell by a Tangent Galvanometer.
5. Measurement of Resistance by—
 - (a) Metre Bridge.
 - (b) Post Office Box.

SOUND.

1. Velocity of Sound by Resonance.

37. LIST OF EXPERIMENTS PERFORMED BY THE
B.Sc. PASS CLASS.

GENERAL PROPERTIES OF MATTER.

1. Balance—
 - (a) Resting point.
 - (b) Ratio of the arms of a balance.
 - (c) Borda's method of weighing.
 - (d) Gauss's method of weighing.
 - *(e) Sensibility of the balance.
 - (f) Weighing with buoyancy correction.
2. Reading and Correcting Barometer.
- *3. Simple Pendulum.
4. Measurement of diameters of capillary tubes—
 - (a) Direct method.
 - (b) By weighing a known length of a thread of mercury.
- *5. Young's modulus by stretching.
6. Surface Tension.
7. Viscosity of Water.
8. Moment of Inertia.
9. Simple Rigidity—
 - (a) Dynamical method.
 - (b) Statical method.

HYDROSTATICS.

1. Specific Gravity Bottle—
 - (a) Specific Gravity of Granular Solids with temperature correction.
 - (b) Specific Gravity of Liquids with temperature correction.
2. Specific Gravity of a Liquid by Mohr's Balance.

SOUND.

1. Determination of Velocity of Sound by Resonance with moisture and temperature correction.
2. Melde's experiment.
3. Sonometer.

HEAT.

1. Coefficient of Linear Expansion of Solids—
 - (a) Pullinger's method.
 - (b) Travelling Microscope method.
2. Coefficient of Cubical Expansion of a Liquid—
 - (a) By Weight Thermometer.
 - (b) By Pyknometer.
 - (c) By Mathiessen's method.

* Indicates that the results should be plotted on squared papers.

3. Coefficient of Expansion of Air—
 - *(a) At Constant Pressure.
 - (b) At Constant Volume.
- *4. Specific Heat of Solids by method of mixture with radiation correction.
- *5. Specific Heat of Liquids—
 - (a) By method of mixture with radiation correction.
 - (b) By method of cooling.
 - (c) By Joules' Calorimeter.
- *6. Latent Heat of Ice with radiation correction.
- *7. Latent Heat of Steam with radiation correction.
8. Hygrometry—
 - (a) Regnaults' Hygrometer.
 - (b) Dry and Wet Bulb Thermometers.
9. Vapour Density—Duma's method.

LIGHT.

1. Lummer Brodham Photometer.
2. Caustic curve for refraction.
3. Experiments with a Prism by Pin method—
 - (a) Measurement of the Angle of the Prism. *
 - (b) Measurement of the Angle of Minimum Deviation and hence the calculation of Refractive Index.
 - *(c) Relation between the Angles of Incidence and Angles of Deviation.
4. Focal length of a Convex Lens—
 - (a) Auxiliary Plane Mirror method.
 - (b) Magnification method.
 - (i) Unit and Double Magnification.
 - (ii) Any magnification.
 - (c) Verification of the formula

$$f = \frac{D^2 - X^2}{4D}$$
5. Focal length of a Concave Lens—
 - (a) Auxiliary Lens method.
 - (b) Combination method.
6. Focal length of a Convex Mirror—
 - (a) Plane Mirror method.
 - (b) Lens method.
 - (c) Kohlrausch's method.
 - (d) Spherometer method.
7. Focal length of a Concave Mirror—
 - (a) Kohlrausch's method.
 - (b) Spherometer method.
8. Refractive Index of a Solid by a Travelling Microscope.
9. Refractive Index of a Liquid—
 - (a) Drop by Total Reflection.
 - (b) By Travelling Microscope.
 - (c) Critical Angle Air Film.
10. Magnification of—
 - (a) A Telescope by two methods.
 - (b) A Microscope.
11. Spectrometer—
 - (a) Adjustment for Parallel rays—
 - (i) Direct method.
 - (ii) Schuster's method.
 - (b) Measurement of the Angle of Prism.
 - (c) Measurement of Minimum Deviation and calculation of Refractive Index for the material of the Prism.

* Indicates that the results should be plotted on squared papers.

MAGNETISM.

1. Mapping of Lines of Force.
- *2. Distribution of Magnetism along a Bar Magnet.
3. Verification of the Law of Inverse Square, noting the deflections at tangent A and tangent B positions.
4. Dip Circle.

ELECTRICITY.

1. Tangent Galvanometer—
 - (a) Constant of the Galvanometer.
 - (b) Determination of H.
 - * (c) Verification of Ohm's Law.
2. Metre Bridge—
 - (a) Correction for End Contacts.
 - (b) Comparison of Resistances.
 - * (c) Temperature co-efficient of Electrical Resistance.
 - (d) Specific Resistance of the material of a wire.
3. Post Office Box—
 - (a) Measurement of Resistances.
 - (b) Resistance of a Galvanometer (Thomson's method).
 - (c) Resistance of a cell (Lodge's method).
 - * (d) Setting up a Galvanometer and determining its Figure of Merit.
4. Measurement of High Resistance.
5. Measurement of Low Resistance.
6. Voltmeter—
 - (a) Kohlrausch's Gas Voltmeter.
 - (b) Copper Voltmeter and determination of Electro-Chemical Equivalent of Copper.
7. Joule's Law.
8. Potentiometer.
 - (a) Poggendorff's method.
 - (b) Lord Rayleigh's method.
9. Thermo-couple.

III. CHEMICAL LABORATORY.

38. CHEMISTRY STAFF.

Name.	Post held.	Academic Qualification.	Detail of Service.	Other Experience.
Bhupendra Kishore Chowdhury	Professor of Chemistry.	M.Sc., II Class.	Six years in B.N. College.	None.
Mukunda Nath Banerjee	Lecturer in Chemistry.	M.A., III Class; II Class Hons. in B.A. (Physics and Chemistry).	Seven years from Nov. 1911 in B.N. College	One year Prof. of Chemistry in the Edward College, Pabna (Bengal).
Lala Mangni Ram	Senior Assistant.	B.A. (Chemistry), 1915.	Two years and a half in B.N. College.	Served as Asstt. Head Master in Govt. Aided H.E. School, Muzaffarpur.
Narendra Nath Dey	Junior Assistant.	Read up to B.A. (Chemistry).	Three years and nine months in B.N. College.	None.

* Indicates that the results should be plotted on squared paper.

MENIAL STAFF.

	Pay.
1 Bearer	Rs. 9
1 Bearer .. .. .	.. " 9
Sweeper. There is one sweeper for the whole College	.. " 8

39. GRANTS.

	Rs.
Annual grants .. { 1916-17	1,000
{ 1917-18	500
{ 1918-19	500
Special grants .. { 1916-17	1,200
{ 1917-18	1,300

The Government grant 1918-19 of Rs. 3,000 for all the laboratories (Chemistry, Physics and Experimental Psychology) has not yet been allotted to the several departments.

40. APPARATUS.

Condition of apparatus	Fair.
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41. DIMENSIONS OF ROOMS.

I.Sc. Laboratory	40·6' × 21'
B.Sc. Laboratory	40·6' × 28'
Store Room	14' × 12'
Balance Room .. .. .	.. .. .
Office .. .. .	.. .. .
Lecture Theatre	24' × 18'
Lecture Room for small classes	12' × 18'

Staff Laboratory.—None; but accommodation is given in the B.Sc. Laboratory.
Theatre.—Total length of seats including the front seat which is incomplete—78 ft., allowing 1½ ft. per student gives accommodation for 52.

I.Sc. Laboratory.—Total length of benches—109 ft. Total number of cupboards—44. The cupboards are unnecessarily large for I.Sc. work, and if each be divided into two making 88 in all, would give accommodation for 44 first year and 44 second year students. We recommend that this be done.

B.Sc. Laboratory.—Total length of benches—90 ft. Total number of cupboards—36, giving accommodation for 18 third year and 18 fourth year students.

No. of students on the rolls:—

First year	79
Second year	160
Third year	14
Fourth year	13

42. GENERAL ARRANGEMENT OF WORK.

No. of Lecturers	2
No. of lectures per week .. {	First year class .. 4
	Second ,, ,, .. 8
	Third ,, ,, .. 4
	Fourth ,, ,, .. 4
No. of practical periods per week {	First year class .. <i>nil</i>
	Second ,, ,, .. 17
	Third ,, ,, .. 4
	Fourth ,, ,, .. 6

43. CHEMICAL LIBRARY.

Books.—There is no regular library grant for Chemistry.
Journals.—Journal of the Chemical Society.

REMARKS.

44. A study of the figures given above shows that the number of students taking Chemistry is far in excess of the numbers for which there is

proper accommodation, except in the case of third and fourth year classes. The laboratories are well-built and well-fitted, but with the overcrowding that exists at present it is impossible to do the work properly. The total number of first and second year students together is at present 239. There is only proper accommodation for 88. The lecture theatre is badly fitted up and is too small for its purpose. It gives accommodation for 52 students as stated above, but as one of the classes numbers 84, seats have been placed in the space between the lecture table, and the first row of students' benches so that the first row of students sit with their note-books actually on the lecture table. Even with this arrangement it is not understood how 84 students could attend lectures in this room. The division of students into batches for practical work is as follows:—

First year.—No practical work until the second year classes are dissolved.

Second year.—76 regular students divided into three batches; 84 failed students divided into five batches. The regular students do two days' practical work of two 50 minutes' periods each day. The failed students do one period of 50 minutes per week. The three batches into which the regular students are divided are—

First batch	..	..	..	40 I.Sc.
Second batch	..	..	..	25 I.A.
Third batch	..	..	..	11 „

This arrangement is necessary on account of the combinations of subjects taken. One set of apparatus is shared by two students. The failed students are divided into five batches of 17 students each. These have no separate sets of apparatus. They have no home in the Laboratory. This will not be allowed again.

RECOMMENDATIONS REGARDING THE SCIENCE LABORATORIES.

45. The number of students in the Intermediate classes should be limited to a maximum of 44 in each year making a total of 88, and in the third and fourth year classes to 18 in each year making a total of 36. This can easily be arranged when the new curriculum is introduced next year. The two large central rooms in the main College buildings situated to the south of the Science block might be converted into lecture theatres for Physics and Chemistry. The large verandah on the north of these rooms could be conveniently fitted up as lecture preparation rooms and space might also be found for a general Chemical store-room. The present store-room being too small for its purpose, it should be used only for a selection of stores of frequent use in the Laboratory.

We recommend that two more Arts class rooms be added to the new Arts block in order to make room in the old building for the Science room proposed above.

IV. EXPERIMENTAL PSYCHOLOGY.

46. Two rooms in the main building have been set apart for this purpose and fitted up as Laboratories in which experimental work in this subject can be carried out. The work is directly under the Principal of the College, who has a whole-time Assistant. There are at present no students taking this subject.

Since the inspection was made a lecturer has been appointed.

APPENDICES.

APPENDIX I.

Abstract Statement of Income and Expenditure.

INCOME.			EXPENDITURE.								
			1915-16.	1916-17.	1917-18.						
			Rs.	Rs.	Rs.	1915-16.	1916-17.	1917-18.			
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.			
Fees	26,693	28,509	29,857	Teaching Staff .. ..	..	..	35,235	37,045	40,310
Subscriptions	1,887	1,075	1,719	Clerical .. ..	..	..	1,364	1,437	1,531
Government Grant	11,920	14,000	12,000	Menial .. ..	..	..	944	972	1,016
Miscellaneous	47	65	40	Contingencies .. ..	..	..	1,148	671	945
						Laboratories .. ..	..	..	2,050	2,000	1,074
						Library .. ..	..	..	1,000	1,000	1,114
						Scholarships .. ..	..	..	546	576	478
						Furniture .. ..	..	..	200	11	226
						Workshop .. ..	..	..	347	378	407
						Repairs .. ..	..	..	95	71	144
						Taxes .. ..	..	..	221	221	237
						Auditing Charge .. ..	..	..	100	....	....
TOTAL			40,547	43,649	43,616	TOTAL			43,250	44,382	47,482

N.B.—The deficits have been met from an endowment fund.

APPENDIX II.

Return showing Qualifications, Length of Service and Present Pay of Teaching Staff (Arts and Science).

Name.	Post.	Qualifications.	Length of Service.	Present Pay.	REMARKS.
1. Principal D. N. Sen ..	Principal and Professor of Philosophy.	M.A., 1891	25 years. (18 years as Principal).	Rs. 520	
2. Prof. L. K. Ghosh ..	Professor of Mathematics ..	.. III Class, 1901	12 years.	200	
3. ,, M. K. Bhambhani ..	.. ,, Physics ..	M.Sc., II Class (Bombay) ..	7 ,,	190	
4. ,, M. Haq ..	.. ,, English ..	M.A. III Class, 1911 ..	6 ,,	180	
5. ,, B. K. Chowdhury ..	.. ,, Chemistry ..	M.Sc., II Class, 1911 ..	6 ,,	190	
6. ,, S. G. Taqi ..	.. ,, Persian ..	M.A., II Class, in Arabic (Punjab), 1912	4 ,,	190	
7. ,, H. C. R. Chaudhuri ..	.. ,, History ..	M.A., II Class, 1912	4 ,,	190	
8. ,, A. Thakur ..	.. ,, Sanskrit ..	.. ,, Class, in Groups A, B and D, 1912-16. M.A., I Class, in Pali, 1918	4 ,,	190	
9. ,, G. P. Hazari ..	.. ,, Philosophy ..	M.A., III Class (Bombay), 1913 ..	4 ,,	190	
10. ,, D. K. Bhattacharya ..	.. ,, Physics ..	M.Sc., I Class, 1916	1½ ,,	160	
11. ,, C. T. Mitra ..	.. ,, English ..	M.A., II Class, 1914	1 year.	150	
12. Maulvi Ismatullah ..	Lecturer in Persian ..	Holds certificate of Cawnpore Madrasa.	9 years.	140	
13. Babu M. N. Banerji ..	.. ,, Chemistry ..	M.A., III Class (Chemistry), 1910 ..	7 ,,	150	
14. ,, B. N. Varma ..	.. ,, English ..	.. ,, ,, 1912, Kavyatirtha.	4 ,,	140	
15. ,, U. C. Datta ..	.. ,, Mathematics ..	.. II ,, 1913	4 ,,	140	
16. Pandit D. K. Sarma ..	.. ,, Hindi ..	Passed the Acharya Examination in Vyakarana from Queen's College, Benares.	4 ,,	55	
17. Babu N. M. Ghosh ..	.. ,, Logic ..	M.A., II Class, 1915	2 ,,	110	
18. ,, J. N. Sikdar ..	.. ,, History ..	.. I Class, 1917	1½ year	110	
19. ,, H. N. Das Gupta ..	.. ,, English ..	.. II Class, 1915	1 ,,	100	
20. Pandit A. T. Sen Gupta ..	.. ,, Sanskrit ..	.. ,, ,, 1912	1 ,,	100	
21. Babu S. N. Ray ..	.. ,, Logic ..	.. ,, ,, 1917	Apptd. this year.	100	
22. ,, D. N. Mazumdar ..	.. ,, English ..	.. ,, ,, 1916 .. ..	.. ,, ,,	100	
23. ,, B. N. Sahai ..	Laboratory Asst., Physics ..	B.Sc.	7 years.	60	
24. ,, N. N. De ..	.. ,, Chemistry ..	Has read up to the B.A., with Chemistry.	3 ,,	33	
25. ,, L. M. Ram ..	.. ,, Chemistry ..	B.A. (II Class Honours in Mathematics), 1915.	2 ,,	60	
26. ,, M. Sahai ..	.. ,, Experimental Psychology.	B.Sc., 1916	Apptd. this year.	50	

APPENDIX III.

Weekly Curriculum of Teaching in Arts Subjects, 1918-19.

Class.	Name of Teacher.	No. of Lectures.	No. of Tutorial Periods.	No. of Students in Class.	No. of Tutorial Batches.
ENGLISH.					
Fourth year ..	Prof. M. Haq ..	2	}	109	(7)*
	„ C. Mitra ..	2			
	Babu B. N. Varma ..	2			
Third year ..	Prof. M. Haq ..	2	}	69	(5)*
	„ C. Mitra ..	2			
	Babu H. M. Das Gupta ..	1			
Second year .. (four sections)	Prof. M. Haq ..	7	}	401†	20
	„ C. Mitra ..	7			
	Babu B. N. Varma ..	5			
	„ H. M. Das Gupta ..	5			
First year .. (two sections)	Prof. M. Haq ..	1	}	268†	(18)*
	„ C. Mitra ..	1			
	Babu B. N. Varma ..	4			
	„ H. M. Das Gupta ..	4			
SANSKRIT.					
Fourth year ..	Prof. A. Thakur ..	2	}	36	(2)*
	Pandit A. Sen Gupta ..	3			
Third year ..	Prof. A. Thakur ..	2	}	13	(1)*
	Pandit A. Sen Gupta ..	3			
Second year ..	Prof. A. Thakur ..	2	}	117	(8)*
	Pandit A. Sen Gupta ..	2			
	„ D. K. Sarma ..	1			
First year ..	Prof. A. Thakur ..	2	}	98	(7)*
	Pandit A. Sen Gupta ..	2			
	„ D. K. Sarma ..	1			
PERSIAN AND URDU.					
Fourth year ..	Prof. S. G. Taqi ..	3	}	60	(4)*
	Maulvi Ismatullah ..	3			
Third year ..	Prof. S. G. Taqi ..	3	}	36	(2)*
	Maulvi Ismatullah ..	3			
Second year .. (two sections)	Prof. S. G. Taqi ..	6	}	218	(18)*
	Maulvi Ismatullah ..	6			
First year ..	Prof. S. G. Taqi ..	3	}	118	(8)*
	Maulvi Ismatullah ..	3			
HISTORY.					
Fourth year ..	Prof. H. C. R. Chaudhuri ..	5	}	51	(4)*
	Babu J. N. Sikdar ..	5			
Third year ..	Babu J. N. Sikdar ..	5	}	29	(2)*
	Prof. H. C. R. Chaudhuri ..	6			
Second year .. (two sections)	Prof. H. C. R. Chaudhuri ..	6	}	167	(11)*
	Babu J. N. Sikdar ..	6			
First year .. (two sections)	Prof. H. C. R. Chaudhuri ..	5	}	142	(9)*
	Babu J. N. Sikdar ..	5			
PHILOSOPHY AND LOGIC.					
Fourth year ..	Principal ..	1	}	55	(4)*
	Prof. G. P. Hazari ..	2			
	Babu N. M. Ghosh ..	3			

* The numerals in brackets represent the number of batches required by the Regulations; the numerals without brackets represent the number of batches actually formed at the time of inspection.

† Including I.Sc. students.

APPENDIX III.—*concl.**Weekly Curriculum of Teaching in Arts Subjects, 1918-19.*

Class.	Name of Teacher.	No. of Lectures.	No. of Tutorial Periods.	No. of Students in Class.	No. of Tutorial Batches.
PHILOSOPHY AND LOGIC—<i>contd.</i>					
Third year ..	Principal ..	3	}	26	(2)*
	Babu S. N. Ray ..	3			
Second year ..	Prof. G. P. Hazari ..	6	} 6+6	342	(23)*
(four sections)	Babu N. M. Ghosh ..	6			
	„ S. N. Ray ..	12			
First year ..	Prof. G. P. Hazari ..	4	} 4+4	228	(15)*
(two sections)	Babu N. M. Ghosh ..	4			
MATHEMATICS.					
Fourth year ..	Prof. L. K. Ghosh ..	4	}	27	(2)*
	Babu U. C. Datta ..	1			
Third year ..	Prof. L. K. Ghosh ..	2	}	31	(2)*
	Babu U. C. Datta ..	3			
Second year ..	Prof. L. K. Ghosh ..	6	} 6+6	163	(11)*
(two sections)	Babu U. C. Datta ..	6			
First year ..	Prof. L. K. Ghosh ..	2	}	90	(6)*
	Babu U. C. Datta ..	3			

* The numerals in brackets represent the number of batches required by the Regulations; the numerals without brackets represent the number of batches actually formed at the time of inspection.

Note.—In addition to the above one lecture is delivered weekly on the Vernaculars in each class.

APPENDIX IV.

Results in University Examinations, 1917 and 1918.

	SUBJECT.								Results as a whole.	
	English.	Sanskrit.	Persian.	History.	Logic and Phil.	Mathematics.	Economics.	Chemistry.		
I.A. EXAMINATION, 1917.										
No. of candidates who appeared.	223	63	133	134	221	31	..	83	No. in (English) class ..	272
No. who passed ..	68	44	126	81	181	25	..	42	No. sent up(a) ..	235
Percentage of passes	30.5	69.8	94.7	60.4	81.9	80.6	..	50.6	No. who appeared	223
No. who failed in this subject only.	38	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	..	..	3	No. who passed ..	65
									Percentage of passes on no. who appeared ..	29.1
I.A. EXAMINATION, 1918.										
No. of candidates who appeared.	229	61	148	120	226	43	..	92	No. in (English) class ..	334
No. who passed ..	143	24	125	66	96	27	..	50	No. sent up(b) ..	253
Percentage of passes	62.4	39.3	84.4	55	42.4	62.7	..	54.3	No. who appeared	231
No. who failed in this subject only.	3	13	<i>Nil</i>	1	18	2	..	..	No. who passed ..	68
									Percentage of passes on no. who appeared ..	29.4
B.A. EXAMINATION, 1917.										
No. of candidates who appeared.	72	21	34	43	41	4	..	1	No in (English) class ..	102
No. who passed ..	36	19	31	20	27	3	..	<i>Nil</i>	No. sent up(c) ..	77
Percentage of passes	50	90.4	91.1	46.5	65.8	75	..	..	No. who appeared	72
No. who failed in this subject only.	5	<i>Nil</i>	<i>Nil</i>	2	1	<i>Nil</i>	..	<i>Nil</i>	No. who passed ..	31
									Percentage of passes on no. who appeared ..	43.1
B.A. EXAMINATION, 1918.										
No. of candidates who appeared.	96	29	51	44	50	61	1	1	No. in (English) class ..	109
No. who passed ..	42	17	50	30	32	10	<i>Nil</i>	<i>Nil</i>	No. sent up(d) ..	98
Percentage of passes	43.7	58.6	98	68.1	64	62.5	<i>Nil</i>	<i>Nil</i>	No. who appeared	96
No. who failed in this subject only.	15	1	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	1	1	1	No. who passed ..	38
									Percentage of passes on no. who appeared ..	39.5

(a) Of these 20 were ex-students.

(b) Of these 28 were ex-students.

(c) Of these five were ex-students.

(d) Of these six were ex-students.

V.

REPORT

ON

GREER BHUMIHAR BRAHMAN COLLEGE, MUZAFFARPUR

FOR 1918-19.



The College was affiliated to Calcutta University in the following subjects up to the standards mentioned:—

B.A.—English (Pass), Vernacular Composition, Sanskrit (Pass), Persian (Pass), Arabic (Pass), History (Pass), Mathematics (Pass), Political Economy and Political Philosophy (Pass).

I.A.—English, Vernacular Composition, Sanskrit, Arabic, Persian, History, Mathematics, Logic, Physics

Inspected on September 30th and October 1st, 1918, by the Rev. J. C. Forrester, Mr. D. N. Sen and Mr. E. A. Horne, and by Dr. K. S. Caldwell on November 20th, 1918).

I. GENERAL.

ADMINISTRATION.

1. The College is under the management of a regularly constituted Governing Body. Its members, appointed by Government, are as follows:—

The Commissioner of the Tirhut Division, President, *ex officio*.

The Principal, Vice-President and Secretary, *ex officio*.

The Hon'ble Rai Bahadur Dwarka Nath, B.A., LL.B.

The Hon'ble Mr. P. Kennedy, M.A., P.R.S.

Babu Jogeshwar Prasad Sinha.

Professor Rameschandra Sen, M.A., Professor of Physics.

There were seven meetings of the Governing Body during the session 1917-18; and this term it has met three times. Its powers are defined in the Education Code, Bihar and Orissa, pp. 67-8.

2. The College Council, composed of members of the teaching staff, is an advisory body which the Principal consults on matters affecting discipline and the organization of studies. There were five meetings during the session 1917-18; and there have been two meetings of the Council in the current session.

3. The clerical staff consists of a head clerk, in charge of the correspondence, on a salary of Rs. 50 per month; a second clerk on Rs. 25; and a librarian, who is also cashier and accountant, on Rs. 50. The duties of cashier and accountant should not be performed by one man; and there should be a whole-time librarian. We recommend the following staff:—

	Rs.		Rs.
Head Clerk and Accountant	50-75	Junior Clerk ..	.. 10-25
Cashier and Second Clerk ..	40-60	Librarian ..	.. 40-60

4. The following books and registers were inspected:—

- (1) Proceedings of the Governing Body.
- (2) " " " College Council.
- (3) Conduct Register,

- (4) Admission Register.
- (5) Attendance Registers.
- (6) Register of Transfer Certificates.
- (7) Marks Register.
- (8) Cash Books.

The registers and books are kept in proper form. The following accounts are not found in the College cash books:—

Athletic Union.
Common Room.
University Fees.
College examination expenses.

The receipts under the first two heads are lodged in the Post Office Savings Bank. The University fees are kept in the College safe until all have been realized, when one of the clerks takes them to Patna. Separate accounts of each head should be kept by the College office. With the above exceptions, all receipts are lodged in the Government Treasury, and all payments are made through the Treasury. Little money is kept in the College safe. Members of the staff, in receipt of Rs. 150 and upwards, draw their pay direct from the Treasury. Thus their salaries do not appear in the College cash books. An annual abstract of accounts should be prepared, including the salaries of the whole staff. The accounts are checked yearly by the Principal and the Professor of Mathematics. They do not appear ever to be audited. This is not satisfactory. Counterfoil receipts should be used for College fees, one being given to the student and the other kept for checking accounts.

FINANCE.

5. The monthly tuition fee is Rs. 4, both in the I.A. and B.A. classes. Those who take up Physics deposit caution money (Rs. 5) but pay nothing extra. The other charges are:—Admission fee, Rs. 4; Hot weather charge, Re. 1; Annual subscription to Athletic Union, Re. 1; and to Common Room, Re. 1. In Appendix I are given returns of income and expenditure for 1916-17 and 1917-18.

BUILDINGS.

6. The College is fortunate in possessing an admirable site. The present buildings are airy and well-lighted, but the accommodation is not sufficient. They will suffice, however, unless the number of students increases unduly, until the new buildings are completed. A sum of over five lakhs of rupees will be given to the erection of a very complete college with science laboratories, hostel, and residences for the Principal and two Professors. The hostel is in process of erection, the cost being defrayed out of a sum of Rs. 82,432, which was handed over to Government by the former trustees when the College was taken over by Government. The plans, which we saw, are admirably designed, and provide quarters for two resident Superintendents. A residence for the Principal is also under construction, at a cost of Rs. 21,425. We consider that this house is much too small and meagre for the residence of a Principal. The house is designed for a man living in European style. The rooms are very small, and the accommodation for an officer of the status of the Principal of a college is most inadequate.

7. The present sanitary arrangements of the College are disgraceful. Such meagre accommodation as is provided is thoroughly antiquated and bad. There is no accommodation whatever provided for the staff, and a very kachcha room, with an earthen floor and practically no furniture, is all that is provided for the Principal.

LIBRARY.

8. The Library contains 4103 books, 369 being added last year. The amount spent on the purchase of books in 1916-17 was Rs. 969, and in 1917-18, Rs. 2,012. The library is fairly good; but considerable additions need to be made, especially in English Literature, Philosophy and Mathematics.

In Economics the collection of official publications is poor. The reference section might be improved. The following publications (Philosophical and Sanskrit) might, with advantage, be obtained for the library :—

British Journal of Psychology.
 American Journal of Psychology.
 International Journal of Ethics.
 Vedic Index—Keith and Macdonnell.
 Sayan's Commentary on the Rigveda.
 The more important Puranas.
 Journal of the Royal Asiatic Society.
 Journal of the Asiatic Society of Bombay.
 Publications of the Pali Text Society (London).

The books are kept in a long, hall-like room, with an annexe in which the Sanskrit, Persian, Arabic, and Vernacular sections are housed. Desks are provided for students' use in the library. No deposit is required from students taking out books for home reading. Good use is made of the library by professors and students.

This year a special grant of Rs. 7,400 has been made for the purchase of books.

TEACHING STAFF.

9. Particulars as to the qualifications, period of service, and present pay of members of the teaching staff are contained in Appendix II. When compared with the status and pay which they now enjoy as Government officers, the academic qualification of several members of the staff are distinctly below those ordinarily required for such posts. The following are the changes which have occurred since July 1917. Mr. R. P. Khosla succeeded Mr. Owston Smith as Principal on September 18th, 1917. From May 16th to September 19th, 1918 Babu M. N. Chatterji acted as Principal-in-charge in the absence of Mr. Khosla. Babu J. K. Sarkar, Professor of Logic, was appointed in place of Babu B. K. Ray, whose services were dispensed with, being transferred from the Ravenshaw College with effect from the beginning of last session. Babu Bireshwar Chatterji, Additional Professor of English, was transferred from the same College with effect from the beginning of the current session. This is a new appointment. Babu S. N. Bose, Professor of History, was appointed in place of Mr. J. B. Kripalani, whose services were dispensed with in September 1917. Pandit L. N. Singh has been appointed Lecturer in Hindi with effect from the beginning of the current session.

COLLEGE CURRICULUM IN ARTS SUBJECTS.

10. Detailed particulars are given with regard to the weekly curriculum in each subject in Appendix III. Provision is made in the B.A. classes for the following subjects and combinations of subjects :—

English, Vernacular Composition, a Classical Language and History or Mathematics or Economics.

English, Vernacular Composition, History and Economics.

English, Vernacular Composition, Mathematics and Economics.

Thus there are five possible combinations. Of the classical languages Arabic is taught as well as Persian and Sanskrit. The College is not admitted in Philosophy. In the I.A. classes there are provided :—

English, Vernacular Composition, Logic, a Classical Language and History or Mathematics or Physics.

English, Vernacular Composition, Logic, Mathematics and Physics.

English, Vernacular Composition, Classical Language, Mathematics and Physics.

Physics is at present being taught for the Intermediate in Arts; but this will cease as soon as the new course in Elementary Physics and Chemistry is definitely introduced by the University. Then, unless provision can be made for teaching Chemistry and admission obtained in the new subject, there will no longer be any science subject taught in the College; and the number of possible combinations for the I.A., five at present, will be reduced to two.

11. The number of periods of College work, according to the combinations of subjects taken up, is shown below for each year. The length of the period is 45 minutes.

Fourth Year.

If the course includes a Classical Language but neither History nor Mathematics.	lectures: 18 tutorials: 3	} 21 periods.
If the course includes a Classical Language and either History or Mathematics.	lectures: 18 tutorials: 4	} 22 "
If the course does not include a Classical Language	lectures: 19 tutorials: 4	} 23 "

There are six lectures a week in all subjects except the Classical Languages. In Arabic (one student only) four lectures are given; in Persian and Sanskrit five lectures. Tutorial instruction is given in all subjects, in History and Mathematics for two periods a week, and in other subjects for one. One lecture a week is given in Vernacular Composition.

Third Year.

If the course includes a Classical Language	lectures: 18 tutorials: 1	} 19 periods.
.. .. does not include a Classical Language	lectures: 19 tutorials: 1	} 20 "

Tutorial instruction is given at present only in English. In Persian and Sanskrit five lectures a week are given. In each of the other subjects six lectures are given, and one lecture in each of the Vernaculars.

Second Year.

If the course includes no Science subject	lectures: 23 tutorials: 5	} 28 periods.
.. .. Physics but not Mathematics	lectures: 23 tutorials and practicals: 7	} 30 "
.. .. Physics and Mathematics	lectures: 24 tutorials and practicals: 8	} 32 "

This is much too heavy a time-table, and should be substantially reduced. There are five lectures a week in Logic and in Persian and Sanskrit, and six in other subjects, besides one in Vernacular Composition. In Physics there are four periods of practical work, in History and Mathematics two periods of tutorial instruction, and in other subjects one period of tutorial instruction every week.

First Year.

If the course includes no Science subject	lectures: 23 tutorials: 1	} 24 periods.
.. .. Physics but not Mathematics	lectures: 21 tutorials and practicals: 3	} 24 "
.. .. Physics and Mathematics	lectures: 23 tutorials and practicals: 3	} 26 "

At present tutorial instruction is given only in English. Four lectures are given in Logic and Physics, and six in other subjects, besides one in the Vernaculars. In Physics there are two periods of practical work.

12. Comparing the present time-table with that in force according to the last Inspection Report on the College in July 1914, we have as shown in the table below. At that time tutorial instruction was given in English only, fourth year students having one period a week and second year students two. As many as 11 lectures in English were given in the third year class; nine in the fourth year; eight in the second and ten in the first year class. In Physics there were four periods of practical work both in the first and second year classes.

	July 1914.	July 1918.
Fourth year	.. 21 to 23 periods.	21 to 23 periods.
Third "	.. 22 to 23 "	19 to 20 "
Second "	.. 27 to 30 "	28 to 32 "
First "	.. 27 to 30 "	24 to 26 "

13. Teaching work is distributed amongst the various members of the staff as follows:—

Subjects.	Name of Teacher.	No. of Lectures.	No. of Tutorial Periods.	Total.
English	Prof. M. N. Chatterji ..	8	6	14
	„ B. Chatterji ..	8	9	17
	Babu B. Prasad ..	8	9	17
Sanskrit and Hindi	Prof. R. D. Ray ..	11	3	14
	Pandit A. N. Upadhyaya ..	10	5	15
	„ L. N. Singh ..	4 (Hindi)	..	4
Persian and Urdu ..	Prof. A. B. P. Singha ..	13	4	17(a)
	Maulvi A. Majid ..	12	3	15(b)
Arabic ..	Prof. A. B. P. Singha ..	2	1	3(a)
	Maulvi A. Majid ..	2	..	2(b)
History	Principal ..	6	..	6
	Prof. S. N. Bose ..	8	6	14
	Babu A. N. Sen ..	10	6	16(c)
Logic ..	Prof. J. K. Sarkar ..	9	8	17(d)
Economics	„ N. Malkani ..	12	3	15
Mathematics	Prof. H. P. Das ..	12	6	18
	Babu H. N. Ganguli ..	12	6	18

(a) Prof. A. B. P. Singha teaches for 17 periods in Persian and Urdu, three periods in Arabic.

(b) Maulvi A. Majid teaches for 15 periods in Persian and Urdu, two in Arabic.

(c) Babu A. N. Sen teaches Bengali for two periods in addition to above.

(d) Prof. J. K. Sarkar teaches Bengali for two periods in addition to above.

The arrangements for lectures on the vernaculars (one in each class in each of the three vernaculars) are indicated above. The teachers concerned do not receive any special allowances for this work. From November one of the History staff is to give lectures on Political Science to the Economics classes, thus enabling the Professor of Economics and Political Science to devote all his time to Economics, both general and Indian Economics. This is a most suitable plan, and should prove of much help to the students.

14. At the time of our inspection the new tutorial system had been introduced in all the classes in English, but in other subjects in the second and fourth year classes only. In History and in Mathematics, in the second and fourth year classes, every student has at present two tutorials a week, so that he receives tutorial instruction in all branches of the subject, and from the same teacher who lectures in those several branches. This is an excellent plan. Unfortunately, it will not be possible to adhere to it when tutorial instruction is provided in all classes. The difficulty can, however, be overcome in this way. Instead of going to both professors in History once a week as at present, the student may go to each once a fortnight for tutorial work. The same arrangement might be followed for Mathematics. This will halve the tutorial work of teachers concerned, and will make it possible without any difficulty to provide tutorial instruction in these two subjects in all classes. The only subjects which present any difficulty, in respect of the teaching staff required, are Persian and Logic. The Professor of Logic has, at present, altogether 19 periods of teaching per week; and tutorial instruction has yet to be provided in the first year class, which consists of eight batches. This means a total of 27 periods, which is certainly too much. The College, we understand, intends to apply for admission in Philosophy. If this is granted, it will be on the condition presum-

ably that a second teacher in Philosophy and Logic is appointed; and, with the present numbers, two men can meet all requirements. Otherwise, it will be necessary to limit somewhat drastically the numbers admitted to the Logic classes. In Persian and Arabic there is need for the immediate appointment of an additional Maulvi, of similar status to the Hindi Pandit. At present there is no third year class in Arabic, nor are there any tutorial classes in Persian in the first or third year classes. Provision for these will involve nine additional periods of teaching; and already Maulvi A. Majid has 17 periods, while Prof. A. B. P. Sinha has 20 periods. The third Maulvi would take over the lectures in Urdu and part of the tutorial work in Persian. The class-room accommodation is sufficient.

15. If the teaching staff is strengthened as above suggested, adequate instruction can be given in all subjects, but only on condition that the limits at present fixed for the numbers admitted to the different classes are not exceeded. The original limits fixed by the Governing Body some 18 months ago were 120 in both the first and second year classes, and 50 in both the third and fourth year classes—a total of 340 students. Recently these limits have, we observe, been raised to 135 and 70, respectively—making a total of 410 students. We strongly recommend that no further increase be sanctioned. If further accommodation is necessary it should be made elsewhere.

16. In a Supplementary Note on the subject will be found information as to the methods of tutorial instruction.

NUMERICAL STRENGTH.

17. The average monthly number on the rolls, and the average daily attendance, during the last two years are as follows:—

			Average Monthly No.	Average Daily Attendance.
1916-17	..	..	288	251
1917-18	..	..	279	262

The College dates from 1899. In 1904-5 its average strength was 113; in 1906-7 it had sunk to 50. A big increase in the numbers occurred in 1913. The total number on the rolls on July 31st of that year was 256, as compared with 164 in the previous year. In 1914 the numbers rose to 295; and there has been no very marked increase since then, the total number on the rolls at the time of our inspection being 354.

RESULTS IN UNIVERSITY EXAMINATIONS.

18. A full analysis of the results in each subject at the I.A. and B.A. examinations conducted by the Patna University this year and the same examinations conducted by the Calcutta University in 1917 is contained in Appendix IV. The percentage of passes in the I.A. and B.A. examinations amongst candidates from this College, together with the corresponding percentage for candidates from Bihar and Orissa as a whole, during the last five years is given below:—

				I.A.	B.A.
1914	..	..	..	50·8 (33·2)	59·3 (40·8)
1915	..	..	..	52·5 (47·2)	40 (54·4)
1916	..	..	..	59·3 (46·3)	64·2 (52·9)
1917	..	..	..	29·9 (41·07)	41·1 (47·2)
1918	..	..	..	65·9 (50·7)	42·6 (42·2)

COLLEGIATE LIFE.

19. The College has a fine site, with ample space for playing fields. At present, it is difficult to do much to put the grounds in order owing to the havoc caused by the building operations in progress. When these are over, a special grant will be wanted for levelling, and for fencing the College compound. It is impossible to keep the grounds properly as long as men and cattle have a free right of way across them. Mr. N. Malkani, for whom

a residence is provided (at a rent of Rs. 20) immediately beside the College compound, is in charge of games. There are two football (or hockey) grounds, and several tennis courts; and a fair and increasing number of students take advantage of these facilities. For students living in the hostel (42 in number at present) participation in games is compulsory. This year the College has greatly distinguished itself in local football. Athletics are financed by students' subscriptions (Re. 1 per annum) and a Government grant. The latter is usually equal to the amount subscribed by the students; but this year Rs. 500 has been granted. This should be sufficient, if provision is made, as suggested above, for the necessary initial outlay on levelling and fencing. We consider that it is desirable to make organized physical exercise an integral part of the College curriculum. The expense involved is small. Quite a light structure can be run up as a drill-hall and gymnasium; and a drill-instructor, whose services can be made use of in a number of ways, can be had for Rs. 45—5—75. Much, we believe, can be done to develop this side of College life here. When the new hostel (with superintendents' quarters) and the Principal's house are ready, as they will be shortly, there will be quite a large number of students and several members of the staff, including the Principal himself, living practically in College. Apart from games, there is little that can be called collegiate life. The College Debating Society met only twice last session, and the Historical Society only once. There is a flourishing Literary Society in the hostel, however. Mr. Khosla has started an Urdu Literary Society, which promises to do well. The following periodicals are placed in the Students' Common Room: Statesman, Pioneer, Times of India (daily and weekly), Weekly Times, Spectator, Strand Magazine, Great Thoughts, Chambers' Journal, Nature, Scientific American, Mind, Economic Journal, Historical Review, Round Table, Fortnightly and Contemporary Reviews, Nineteenth Century and After, Journal of the Asiatic Society of Bengal, Indian Antiquary, Dacca, Indian, Hindustan and Calcutta Reviews, Calcutta University Magazine, Makhzan, Bhariti, Sahitya, Shri Lakshmi. The College pays for Nature, Mind, the Economic Journal and the Indian Antiquary; otherwise the cost is met from students' subscriptions (Re. 1 per annum).

STATE OF DISCIPLINE.

20. Cases of misconduct, with details of the same and of the punishment given, are carefully recorded. From these it appears that breaches of discipline are rare.

RESIDENCE OF STUDENTS.

21. The great majority of the students live with their parents or guardians in the town. A committee is shortly to be formed, we understand, to visit the homes of these students and report on the conditions under which they are living.

22. There is a temporary hostel in the College compound, in which 42 students reside under the supervision of a resident Superintendent, Babu Atulananda Sen, M.A., Lecturer in History. All are single-seated rooms, which though small are sufficiently airy and lighted. There are adequate arrangements for medical attendance, an Assistant Surgeon being retained at Rs. 30 per month. The latrines are quite satisfactory, in marked contrast to those provided for the College. The usual books are kept. One is kept for reports on the health of the students. The only charge for residence in the hostel is a seat-rent of Re. 1—8. Students provide their own lighting. Good lamps should be provided by the College; most of the boarders at present appear to study at night by the light of a hurricane lantern. A monthly expenditure of Rs. 20 or 21 covers all expenses, including College fees. Some form of athletic exercise is compulsory. Two senior students are appointed prefects.

23. There are no attached messes.

II. PHYSICAL LABORATORY.**24. PHYSICS STAFF.**

Name.	Post held.	Academical Qualifications.	Detail of Service.	Other Experience.
Ramesh Chandra Sen.	Professor of Physics.	M.A., Calcutta, III Class in Physics.	Professor of Physics in July 1911.	Professor of Physics, Hetenpur, Demonstrator of Physics, Sibpur.
Ananta Mohan Sen Gupta.	Demonstrator in Physics.	B.A. in Physics and Chemistry, M.A. in History.	Demonstrator in Physics from December 1911.	Mathematical teacher in H.E. Schools.

MENIAL STAFF.

First bearer..	..	..	..	..	Rs. 9
Second „	..	..	..	..	„ 8

The College sweeper looks after the Laboratory.

25. DIMENSIONS OF ROOMS.

Practical Room ..	..	..	..	30' × 20'
Lecture Room ..	..	..	..	27' × 15'
Store Room ..	..	..	..	20' × 19'6'
Dark Room ..	..	..	..	20' × 13'6'
Preparation Room ..	..	..	..	13'6' × 13'6'

In the Laboratory there is room for 15 students to work at a time, and the Lecture Theatre gives seating accommodation for 24 students. It is possible therefore to have a first year class of 24 and a second year class of 24.

The practical class is divided into two batches in each year. At present there are 20 students in the first year and 25 in the second year.

26. GRANTS.

Annual grant	Rs. 1,000
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27. APPARATUS.

Condition of apparatus	Good.
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28. LIBRARY.

Number of Scientific books in the Library is 300.

Annual grant for books on Physics, Rs. 75. During the year 1918-19 there has been special grant for books on Physics of Rs. 500.

In a separate building especially constructed for the purpose is an observatory fitted up to take a transit instrument and a telescope. These instruments have already been purchased, but have not yet been placed in position. This building forms a part of the scheme of the new building of the College.

29. CHEMISTRY.

There is at present no arrangement for teaching Chemistry in this College, and it is not therefore possible for students in this College to take up any Science subjects in the Patna University Examinations.

30. Pending the construction of the new building temporary arrangements for Chemistry could be made as follows:—

The room at present used as a Professors' room could be converted into a Chemical Laboratory with accommodation for a class of 24, if it were fitted with suitable benches and gas and water. The present Professors' Reading Room measuring 20' × 20', which lies between the existing Physics Laboratory and the suggested Chemical Laboratory, could be fitted up as a Chemical Store Room and a Preparation Room.

The Physics lecture room could be shared by Physics and Chemistry. With suitable furniture and fittings this would give accommodation for 24 second year students. There is at present no gas installation at the College. This is necessary. We therefore recommend the admission of the College up to the I.A. and I. Sc. Standards in Chemistry and Physics provided that (1) a suitable staff in Chemistry be appointed; (2) the rooms suggested above be fitted up with suitable furniture, gas and water installations; (3) a suitable grant be allotted for the purchase of Chemicals and apparatus; and (4) additions be made to the Chemical literature in the Library. Provided that all the above conditions are carried out to the satisfaction of the Syndicate by the commencement of the session.

Physics has hitherto been taken as an Arts subject in the Intermediate Examination of Calcutta University.

APPENDICES.

APPENDIX I.

Abstract Statement of Income and Expenditure.

INCOME.				EXPENDITURE.															
				1916-17.				1917-18.											
				Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.				
Fees and fines		15,265	5	0	15,817	2	0	Teaching Staff	..	..		35,009	6	5	38,379	5	8
Subscriptions		500	0	0	6,000	0	0	Clerical	..	..		1,187	10	3	1,320	0	0
Government grant		29,864	8	7	32,542	6	5	Menial	..	..		779	8	0	740	10	3
										Furniture	..	..		786	10	0	3,413	0	0
										Library	..	..		969	9	0	2,012	0	6
										Laboratory	..	..		1,286	4	0	1,045	11	3
										Repairs	..	..		402	12	0	2,698	5	1(a)
										Scholarships	..	..		3,398	2	5	2,867	14	11
										Miscellaneous	..	..		1,809	15	6	1,935	8	9
TOTAL	..			45,629	13	7	54,412	8	5	TOTAL	..			45,629	13	7	54,412	8	5

(a) Includes expenditure of a special grant of Rs. 2,250 for erecting an observatory.

Note.—The College was provincialised from July 1st, 1915. The accounts for the year 1915-16 are consequently not comparable with the above.

APPENDIX II.

Qualifications, Length of Service and Present Pay for Teaching Staff.

Name.	Post.	Qualifications.	Length of Service (at this College).	Present Pay.	REMARKS.
1. R. P. Khosla, Esq. ..	Principal and Professor of History.	M.A. (Punjab), 1903, B.A. (Oxon.), 1915.	1 year.	Rs. 600	
2. Prof. A. B. P. Sinha ..	Professor of Persian ..	.....	19 years.	200	
3. ,, R. D. Ray ..	,, ,, Sanskrit ..	I.A., Kavyatirtha, II Division ..	9 ,,	200	
4. ,, K. P. Das ..	,, ,, Mathematics ..	M.Sc. (Mathematics, Allahabad), III Class, 1910.	7 ,,	215	Includes special allowance, Rs. 15.
5. ,, R. C. Sen ..	,, ,, Physics ..	M.A. (Physics), III Class, 1908. ..	7 ,,	215	Includes special allowance, Rs. 15.
6. ,, N. Malkani ..	,, ,, Economics ..	M.A. (History, Bombay), III class, 1910; M.A. (Econ., Cal.), II Class, 1915.	5 ,,	205	Includes special allowance, Rs. 5.
7. ,, M. N. Chatterji ..	,, ,, English ..	M.A. (Philosophy), III Class, 1895; (English, two groups), III Class, 1912 and 1915.	5 ,,	220	Includes special allowance, Rs. 20.
8. ,, J. K. Sarkar ..	,, ,, Logic ..	M.A., II Class, 1914 ..	1 year.	200	
9. ,, S. N. Bose ..	,, ,, History ..	M.A., II Class, 1913 ..	1 ,,	200	
10. ,, B. Chatterji ..	,, ,, English ..	M.A., II Class, 1913 ..	Apptd. this year.	200	
11. Babu H. N. Ganguli ..	Lecturer in Mathematics ..	M.A., I Class, two groups, 1908 and 1918	5 years.	150	
12. ,, B. Prasad ..	,, ,, English ..	M.A., III Class, 1912 ..	5 ,,	150	
13. ,, A. N. Sen ..	,, ,, History ..	M.A., III Class, 1913 ..	5 ,,	150	
14. Maulvi S. A. Majid ..	,, ,, Persian ..	Matric.; Final of Calcutta Madrasa	4 ,,	150	
15. Pandit A. N. Upadhyaya ..	,, ,, Sanskrit ..	Vidhyabhusan ..	1½ ,,	125	
16. ,, L. N. Singh ..	,, ,, Hindi ..	Matric.; Kavyatirtha ..	Apptd. this year.	50	
17. Babu A. M. Sen Gupta ..	Demonstrator in Physics ..	B.A. (with Physics), 1908; M.A. (History), III Class, 1914.	6½ years.	150	

APPENDIX III.

Weekly Curriculum of Teaching in Arts Subjects, 1918-19.

Class.	Name of Teacher.	No. of Lectures.	No. of Tutorial Periods.	No. of Students in Class.	No. of Tutorial Batches.
ENGLISH.					
Fourth year ..	Prof. M. N. Chatterji ..	2	1	} 43	3
	„ B. Chatterji ..	2	2		
	Babu Bindeshwari Prasad ..	2	..		
Third year ..	Prof. M. N. Chatterji ..	2	..	} 45	3
	„ B. Chatterji ..	2	2		
	Babu Bindeshwari Prasad ..	2	1		
Second year ..	Prof. M. N. Chatterji ..	2	1	} 131	9
	„ B. Chatterji ..	2	3		
	Babu Bindeshwari Prasad ..	2	5		
First year ..	Prof. M. N. Chatterji ..	2	4	} 135	9
	„ B. Chatterji ..	2	2		
	Babu Bindeshwari Prasad ..	2	3		
SANSKRIT.					
Fourth year ..	Prof. R. D. Ray ..	3	1	} 11	3
	Pandit A. N. Upadhyaya ..	2	2		
Third year ..	Prof. R. D. Ray ..	2	..	} 23	(2)*
	Pandit A. N. Upadhyaya ..	3	..		
Second year ..	Prof. R. D. Ray ..	2	2	} 63	5
	Pandit A. N. Upadhyaya ..	2	3		
First year ..	Prof. R. D. Ray ..	3	..	} 8	(6)*
	Pandit A. N. Upadhyaya ..	3	..		
PERSIAN.					
Fourth year ..	Prof. A. B. P. Sinha ..	3	1	} 19	3
	Maulvi A. Majid ..	2	2		
Third year ..	Prof. A. B. P. Sinha ..	2	..	} 12	(1)*
	Maulvi A. Majid ..	3	..		
Second year ..	Prof. A. B. P. Sinha ..	3	3	} 60	4
	Maulvi A. Majid ..	2	1		
First year ..	Prof. A. B. P. Sinha ..	3	..	} 42	(3)*
	Maulvi A. Majid ..	3	..		
HISTORY.					
Fourth year ..	Principal ..	2	..	} 23	2
	Prof. S. N. Bose ..	2	2		
	Babu A. N. Sen ..	2	2		
Third year ..	Principal ..	1	..	} 27	(2)*
	Prof. S. N. Bose ..	3	..		
Second year ..	Babu A. N. Sen ..	2	4	} 57	4
	Principal ..	3	..		
First year ..	Prof. S. N. Bose ..	..	4	} 77	(5)*
	Babu A. N. Sen ..	3	4		
	Prof. S. N. Bose ..	3	..		
LOGIC.					
Second year ..	Prof. J. K. Sarkar ..	2	8	117	8
First year ..	„ „ ..	4	..	123	(8)*

* The numerals in brackets represent the number of batches required by the Regulations; the numerals without brackets represent the number of batches actually formed at the time of inspection.

APPENDIX III—concl'd.

Weekly Curriculum of Teaching in Arts Subjects, 1918-19.

Class.	Name of Teacher.	No. of Lectures.	No. of Tutorial Periods.	No. of Students in Class.	No. of Tutorial Batches.
ECONOMY.					
Fourth year ..	Prof. N. Malkani ..	6	3	20	3
Third year ..	„ „ ..	6	..	12	(1)*
MATHEMATICS.					
Fourth year ..	Prof. K. P; Das ..	3	1	} 12	1
	Babu H. N. Ganguli ..	3	1		
Third year ..	Prof. K. P. Das ..	3	..	} 16	(1)*
	Babu H. N. Ganguli ..	3	..		
Second year ..	Prof. K. P. Das. ..	3	5	} 74	5
	Babu H N. Ganguli ..	3	5		
First year ..	Prof. K. P Das ..	3	..	} 58	(4)*
	Babu H. N. Ganguli ..	3	..		

* The numerals in brackets represent the number of batches required by the Regulations; the numerals without brackets represent the number of batches actually formed at the time of inspection.

Note.—In addition to the above one lecture is delivered weekly on the Vernaculars in each class.

APPENDIX IV.

Results in University Examinations, 1917 and 1918.

	SUBJECT.								Results as a whole.
	English.	Sanskrit.	Persian.	History.	Logic and Pali.	Mathematics.	Economics.	Physics.	

I.A. EXAMINATION, 1917.

No. of candidates who appeared.	82	36	34	49	72	29	..	9	No. in (English) class (a) ..	97
No. who passed ..	30	29	<i>Nil</i>	36	69	<i>Nil</i>	..	6	No. sent up ..	87
Percentage of passes	36.5	80.5	<i>Nil</i>	73.4	95.8	<i>Nil</i>	..	66.6	No. who appeared	82
No. who failed in this subject only.	30	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	..	<i>Nil</i>	No. who passed ..	26
									Percentage of passes on no. who appeared ..	33.8

I.A. EXAMINATION, 1918.

No. of candidates who appeared.	88	56	26	39	70	50	..	25	No. in (English) class (b) ..	113
No. who passed ..	78	41	25	29	53	47	..	24	No. sent up ..	89
Percentage of passes	88.6	73.2	96.1	74.3	75.7	94	..	96	No. who appeared	88
No. who failed in this subject only.	<i>Nil</i>	3	<i>Nil</i>	1	2	<i>Nil</i>	..	<i>Nil</i>	No. who passed ..	60
									Percentage of passes on no. who appeared ..	68

B.A. EXAMINATION, 1917.

No. of candidates who appeared.	54	15	15	31	..	14	28	..	No. in (English) class (c) ..	53
No. who passed ..	35	13	15	26	..	13	9	..	No. sent up ..	56
Percentage of passes	64.8	86.6	100	83.8	..	92.8	32.1	..	No. who appeared	54
No. who failed in this subject only.	5	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	..	<i>Nil</i>	2	..	No. who passed ..	23
									Percentage of passes on no. who appeared ..	44.2

B.A. EXAMINATION, 1918.

No. of candidates who appeared.	59	15	23	27	..	18	28	..	No. in (English) class (d) ..	62
No. who passed ..	30	12	23	16	..	13	13	..	No. sent up ..	61
Percentage of passes	50.8	80	100	59.2	..	72.2	46.4	..	No. who appeared	59
No. who failed in this subject only.	4	<i>Nil</i>	<i>Nil</i>	1	..	<i>Nil</i>	3	..	No. who passed	26
									Percentage of passes on no. who appeared ..	44.8

(a) Including ten ex-students.

(c) Including two ex-students.

(b) Including one ex-student.

(d) Including one ex-student.

VI.

REPORT

ON

St. COLUMBA'S COLLEGE, HAZARIBAGH

FOR 1918-19.

The College was affiliated to Calcutta University in the following subjects up to the standard mentioned :—

B.A.—English (Pass and Honours), Vernacular Composition, Mathematics (Pass), Philosophy (Pass), History (Pass), Political Economy and Political Philosophy (Pass), Sanskrit (Pass), Persian (Pass).

Intermediate.—English, Vernacular Composition, Sanskrit, Persian, Mathematics, History, Logic, Chemistry and Botany.

(The inspection was conducted on October the 3rd and 4th, 1918, by the Rev. J. C. Forrester and Mr. E. A. Horne, and by Dr. K. S. Caldwell on December the 18th and 19th, 1918).

I. GENERAL.

ADMINISTRATION.

1. According to the constitution drawn up for the management of the College, there is a Governing Body which deals with all questions affecting the fundamental policy, religious teaching and general interests of the College, and a College Council which deals with all matters affecting the practical working of the College. The Governing Body, which is identical with the Chapter of the Dublin University Mission, possesses a right of veto upon all proceedings of the College Council. The latter body is constituted as follows :—

(a) Members of the Dublin University Mission.

The Rev. J. C. Forrester, Head of the Mission, President *ex officio*.

„ „ H. G. S. Kennedy, Principal, Secretary *ex officio*.

„ „ W. L. McCormick.

„ „ G. C. P. Stevenson, Vice-Principal.

„ „ A. O. Hardy.

(b) Three members of the Teaching Staff, elected by the staff.

Prof. P. K. Nundy.

„ K. S. Ghosh.

„ H. C. Mukherji.

(c) One representative each of the Bengali, Behari, Muhammadan, Indian Christian, and European communities in Hazaribagh nominated by the Mission.

Babu Bisheshwar Mukherji.

Rai Bahadur Gopi Krishna.

Vacant.

The Rev. P. L. Singh.

T. C. Eagles, Esq.

(d) The Deputy Commissioner, or some official nominated by him.

Rai Bahadur Shyam Lal Gupta.

There were four meetings of the Governing Body from July 1917 to July 1918. There was a meeting of the College Council on August 27th, 1917;

another on May 1st, 1918; and a third on August 20th, 1918. The College Council frames the budget, which requires confirmation by the Governing Body.

2. The teaching staff meets twice each term to discuss matters relating to discipline and the organization of studies.

3. The clerical staff consists of a head clerk and accountant, a cashier, and a junior clerk; and is sufficient. There is in addition a whole-time assistant librarian.

4. We examined the Attendance Registers. These are marked by the professors and lecturers, and the marks are totalled by the office. They are kept under lock and key in the office. All alterations in the Attendance Registers should be initialled by the teacher concerned. There is a Marks Register, in which are recorded the marks of the periodical examinations and of tutorial work. The counterfoils of Transfer Certificates issued are preserved; and certificates brought by students from other colleges are duly filed. There is a Conduct Register; but it contains no recent entries. A record ought to be kept of cases of misconduct, with particulars of the punishment given. There is a Stock Book. This should be kept up to date, and checked annually. Coming now to the College accounts, we observe that these have not been audited since 1916-17. We understand that arrangements were made for an audit for 1917-18, but the auditor fell ill. The audit will shortly be made. The cash book has not been checked for many months; it should be checked every month by the Principal. There is a Fee-Collection Register; but receipts are not issued to students. Receipts should be issued for all sums received, and counterfoils preserved. There is an Abstract Account Book, giving a monthly, six-monthly, and annual statement of accounts. Receipted bills are filed, showing the expenditure incurred.

FINANCE.

5. The College fees are as follows:—

	Rs.		Rs. a.
Admission fee ..	5	Annual Sub. to Athletics ..	3 0
Monthly tuition fee ..	5	Common Room ..	1 8
Extras: Chemistry ..	1	Magazine ..	1 0
Botany ..	1		
English Hons. ..	2		

The sources of income are (1) fees and (2) Government grant-in-aid of Rs. 12,000 a year. There was a profit on the working of the hostel in 1916-17 of Rs. 1,657, and in 1917-18 of Rs. 930. On the working of the College in the same two years there was, respectively, a profit of Rs. 3,021 and a loss of Rs. 1,251. An abstract statement of income and expenditure in these two years and in 1915-16 is given in Appendix I. From this it will be seen that the financial position of the College is sound, but leaves little margin. Most of the professors are on an incremental scale of pay, their terms of appointment and present salaries being as under:—

	Original terms of appointment.	Present salary.
	Rs.	Rs.
Prof. D. K. Roy ..	170—15—300	215
P. K. Nundy ..	140	150
K. S. Ghosh ..	140—10—200	200
H. C. Mukherji ..	125	200
P. C. Bose ..	150—15—300	210
J. N. Moitra ..	125	170

Hence considerable extra expenditure on salaries must be anticipated; and if, as appears to be contemplated, all the above are placed on a scale rising by Rs. 15 a year to Rs. 300, the demands under this head will be still greater. In addition, a new professorship will have to be created immediately, if the College is successful in obtaining admission in Intermediate Physics. Hence it is clear that unless the College fees are raised considerably,

which does not seem possible, the Government grant-in-aid will have to be increased if the needs of the College are to be adequately met. The College enjoys, at present, the services of three European Professors of high academic qualifications at an annual cost of only Rs. 5,000 equivalent to a monthly salary per head of under Rs. 140. The cost per student during 1917-18 works out to Rs. 139-14-2, which is by no means excessive.

BUILDINGS.

6. The College stands upon a superb site to the east of the town, with a site area of nearly 20 acres and with open country on all sides. The Arts Department occupies the whole front of the College, attached to which are the Whitley Memorial Hall, which can seat 600, and the hostels which, like the rest of the College, are double-storied. The Science block is a new and handsome building immediately to the north of the College. In the Arts Department there are five large and seven smaller class-rooms; and the Hall is also used for class-lectures, but is really rather too big for the purpose. All the rooms are airy and well-lighted; and the accommodation is ample, with the one exception of office premises. These are quite inadequate; but the work of enlarging them is in progress, provision being made in the plans for a private office for the Principal as well as better accommodation for the clerical staff on the ground floor, and also for a needed extension to the Principal's residential quarters on the floor above. North of the College lie playing-fields; and the College has also the use of a field on the public Maidan immediately west of the College. The sanitary arrangements are not adequate. More latrines should be provided at an early date. The furniture is adequate; but a good deal of it is somewhat clumsy and antiquated, and should be replaced as funds permit. We understand that Rs. 300 will be spent this year on new furniture. Single desks and stools are provided for use in the Hall during examinations.

7. The Principal and Vice-Principal live in the hostel. There are two residences for professors close to the College; also quarters for the head clerk, the cashier, and the assistant-librarian.

LIBRARY.

8. The room which contains the Library is well designed for the purpose. There is a whole-time assistant librarian in charge. The library contains 3,361 books, of which 241 were added last session. About Rs. 1,000 is spent annually in the purchase of books; but there is no fixed grant. No deposit is required from students taking out books for home reading; but if a book is borrowed during the vacation, its value has to be deposited. The catalogue consists of a number of manuscript books, each containing a classified list of the books in a particular subject. The classification adopted seems to be unnecessarily elaborate. In some sections the books need re-arranging. The English Literature section calls for considerable improvement, especially in view of Honours teaching; and additions are required in all sections. There are good collections of books in History and in Philosophy. In Economics there is quite a fair collection; but a set of the more important official publications should be added and kept up to date. The Economic Journal should be procured.

TEACHING STAFF.

9. Particulars as to the qualifications, period of service, and present pay of members of the teaching staff are contained in Appendix II. The Rev. H. G. S. Kennedy succeeded the Rev. F. H. W. Kerr as Principal on 15th November, 1917. The Rev. G. C. P. Stevenson joined the staff last session as Vice-Principal and Professor of English; and Mr. Christpal Kachchhap was appointed to the staff on Aug. 16th, 1917, at a salary of Rs. 100. There has been no other change. Mr. Kachchhap has been acting

as tutor in English and as Lecturer in Mathematics. This arrangement is open to objection. Mr. Kachchhap is also a resident Superintendent in the hostel.

COLLEGE CURRICULUM IN ARTS SUBJECTS.

10. Detailed particulars with regard to the weekly curriculum followed in each subject will be found in Appendix III. Provision is made in the B.A. classes for the following subjects and combinations of subjects :—

- English, Vernacular Composition, Persian, and History.
- English, Vernacular Composition, History, and Philosophy or Economics.
- English, Vernacular Composition, Mathematics, and Philosophy or Economics.
- English, Vernacular Composition, Philosophy, and Economics.

Thus at the present time six out of a possible ten combinations of subjects are being taught. Last year the combination English, Persian, and Economics was taught; and formerly the combination of Persian and Philosophy was provided for. In the I.A. classes provision is made for the following :—

- English, Vernacular Composition, Logic, Persian, and History or Mathematics.
- English, Vernacular Composition, Logic, History, and Chemistry or Botany.
- English, Vernacular Composition, Logic, Mathematics, and Chemistry or Botany.

This allows of six possible combinations, of which four include a Science subject. Chemistry, however, will disappear from the Arts curriculum as soon as the new course in Elementary Physics and Chemistry has been definitely introduced by the University. The College has applied this year for admission in Physics up to the Intermediate standard; and, if this is granted, there should be no difficulty in providing for the new course in Elementary Physics and Chemistry as well. This subject, accordingly, will take the place in the Arts curriculum which is filled by Chemistry at present.

11. The College is admitted to Honours teaching in English; and there have been Honours classes in this subject since 1910. An Honours class, consisting of three students of particular promise, has been started this year in Mathematics. This was done in the belief that the College had affiliation to Calcutta in Honours Mathematics as well as in Honours English. This was a misapprehension, however, as, under the new regulations of Calcutta University, and with effect from 1909, the only subject in which the College was affiliated up to the Honours standard was English. The College will have to apply for admission in Honours Mathematics, if it desires to have Honours classes in that subject; and as admission is unlikely to be granted with retrospective effect, the present class should be dissolved.

12. The College was affiliated to Calcutta in Pass Sanskrit; but for some years the subject has not been taught. From time to time students have been admitted, for the most part plucked students from other colleges taking admission at St. Columba's in the second or fourth year class, who have Sanskrit as one of their subjects for the University examinations; and special sanction has been obtained in such cases which has been granted conditionally on the Principal's certifying that adequate tutorial assistance is given outside the College, and that the pupils examined pass College test in the subject. At the present time there are two such students on the rolls, one in the second and the other in the fourth year class. No arrangements have been made for extra-collegiate teaching in Sanskrit. This is by no means satisfactory. The College authorities should come to a definite decision either to provide once more for the teaching of Sanskrit in the College, for which there is some local demand; or, if this is thought undesirable, to refuse admission in future to any student, whatever his special circumstances, who wishes to appear in Sanskrit at the University examination.

13. The number of periods of College work, according to the combination of subjects taken up, is shown below for each year. The duration of the lecture period is 45 minutes, that of tutorial period one hour. Tutorial periods of one hour are required by the strict letter of the Regulations [Chapter XXIV, Regulation 1(1)]. In practice, however, it is only in a

college with small numbers and a limited number of tutorial batches, that it is possible to set apart two full hours each day entirely for tutorial or practical work. Elsewhere, it will probably be necessary to accept a period of 45 or 50 minutes as equivalent to an hour's tutorial instruction, some amendment of the regulations appears to be called for.

Fourth Year.

If the course includes Persian but not Philosophy	lectures : 17	} 17½ periods.
	tutorials : ½	
If the course includes neither Persian nor Philosophy.	lectures : 18	} 18½ "
	tutorials : ½	
If the course includes Philosophy but not Persian.	lectures : 20	} 20½ "
	tutorials : ½	

In English there are seven lectures a week and one period of tutorial instruction once a fortnight. In Philosophy there are seven lectures, in Persian four, and in other subjects five, besides one in Vernacular Composition. In all classes there is a scripture lesson from 11-30 to 12 five days a week, attendance at which is obligatory. A student taking up Honours English has four extra lectures to attend, making up a total of from 21½ to 24½ periods a week. Attention is drawn to the remarks made on this head in para. 20 of the report on the T.N.J. College, Bhagalpur.

Third Year.

If the course includes neither Mathematics nor Philosophy.	lectures : 10	} 13 periods.
	tutorials : 3	
If the course includes Mathematics but not Philosophy.	lectures : 11	} 14 periods.
	tutorials : 3	
If the course includes Philosophy but not Mathematics.	lectures : 12	} 15 periods.
	tutorials : 3	
If the course includes Philosophy and Mathematics.	lectures : 13	} 16 periods.
	tutorials : 3	

The number of lectures given is five in Philosophy, four in Mathematics, and three in other subjects including English, besides one in Vernacular Composition. One hour's tutorial instruction is given in each subject. Students reading for Honours in English have three additional lectures and one tutorial.

Second Year.

If the course does not include a Science subject.	lectures : 20	} 20½ periods.
	tutorials : ½	
If the course includes a Science subject	lectures : 20	} 22½ periods.
	tutorials and	
	practicals : 2½	

Tutorial instruction is given in English only, one period a fortnight. The number of lectures given is four in Persian and five in other Arts subjects, besides one in Vernacular Composition. In each of the Science subjects there are four lectures and two hours' practical work, and the same in the first year; but in Arts subjects in the first year there are uniformly three lectures and one hour's tutorial instruction in all subjects, besides one lecture in Vernacular Composition.

First Year.

If the course does not include a Science subject.	lectures : 13	} 17 periods.
	tutorials : 4	
If the course includes a Science subject	lectures : 14	} 19 periods.
	tutorials and	
	practicals : 5	

14. A comparison of the present time-table with that in force, according to the last inspection report on the College, in July 1915, shows a considerable reduction in the number of periods of instruction, especially in the case of the second and fourth year classes. This is due mainly to a

reduction in the number of lectures given in English—*viz.* from 10 to 7 in the fourth year, and from 10 to 5 in the second year. This, again, would appear to have been an accompanying result of the introduction of the tutorial system in English at present followed in those classes, by which the classes are broken up into small groups of 5 to 8 students, each group receiving tutorial instruction once a fortnight. In 1915 there were no tutorial groups or special tutorial periods in any subject; but lecture and tutorial work was apparently done in alternate periods in most subjects with the whole class.

	July 1915.	July 1918.
Fourth year	21 to 24 periods(a).	17½ to 20½ periods(b).
Third	16 periods (a).	13 to 16 ,, (b).
Second	26 to 28 periods.	20½ or 21½ ,,
First	21 to 23 ,,	17 or 19 ,,

(a) Students reading English Hons. have 6 additional periods.

(b) Students reading English Hons. have 4 additional periods.

15. Teaching work is distributed amongst the various members of the staff as follows:—

Subject.	Name of Teacher.	No. of lectures.	No. of tutorial periods.	Total.
English	Rev. G. C. P. Stevenson ..	8	4½	12½
	Mr. P. K. Nandy ..	15	6	21
	„ C. P. Kachchhap ..	..	5	5(a)
Persian	„ B. D. S. Chaudhuri ..	14	2	16(b)
Philosophy and Logic	Principal ..	11½	½	12
	Prof. K. S. Ghosh ..	8½	4½	13
History	„ J. N. Moitra ..	13	1	14
	„ P. C. Bose ..	3	2	5(c)
Mathematics	Rev. J. C. Forrester ..	9	1	10
	Mr. C. P. Kachchhap ..	3	1	4(a)
	„ C. C. R. Chaudhuri ..	8	3	11(d)
Economics	Prof. P. C. Bose ..	8	1	9(c)

(a) Mr. C. P. Kachchhap teaches English for five periods and Mathematics for four.

(b) Mr. B. D. S. Chaudhuri teaches Hindi and Urdu, in addition, for four periods.

(c) Prof. P. C. Bose teaches Economics for nine periods, History for five.

(d) Babu C. C. R. Chaudhuri teaches Bengali, in addition, for one period.

16. Lectures in Vernacular Composition are arranged for on the following plan. The first and second year classes, and the third and fourth year classes, are combined. As the numbers in the different vernacular groups are quite manageable, there does not seem any objection to this arrangement. Mr. B. D. Singh Chaudhuri delivers four lectures, two in Hindi and two in Urdu. Professor H. C. Mukherji, the Professor of Chemistry, lectures in Bengali to the third and fourth year classes; and Mr. C. C. Roy Chaudhuri, the Lecturer in Mathematics, to the first and second year classes. Mr. B. D. Singh Chaudhuri receives an allowance of Rs. 20 a month; and the two lecturers in Bengali Rs. 15 each. Once a fortnight in all groups the students do a piece of composition, which is corrected by the lecturers at home, so that a considerable amount of work is entailed. Though possibly no other arrangement can be made, it is open to objection that a professor of scientific subject should be called upon to teach literature though it is that of his mother tongue.

17. In view of the fact that the present second and fourth year classes will appear at their examinations under the Calcutta regulations, the introduction of the new system of tutorial instruction in those classes has been deferred until next year. With the present staff, and the present limited number of students, no difficulty should be experienced in providing fully for tutorial instruction as required by the regulations. Accommodation for tutorial classes is ample. It is necessary, however, that a permanent

addition should be made to the staff in English, a need which was emphasised by the Calcutta Inspectors at their last visit to the College in March 1916. At present one of the lecturers in Mathematics is acting as tutor, and we consider this arrangement to be open to objection. When Mr. Forrester goes on leave in November, a graduate of the Leeds University will officiate as additional Professor of English. Next year, however, the question will arise once more. When the permanent appointment is made, a highly qualified M.A. should be appointed. It is necessary to lighten Mr. Kennedy's work which is a great deal too heavy, considering the demands made upon his time as Principal and as a resident Superintendent in the hostel. We therefore consider that an additional teacher of Logic is required. In the absence of Mr. Forrester the Mathematics staff is insufficient.

18. In Supplementary Note (A) are given particulars as to the methods followed in tutorial instruction, with certain comments on the same.

NUMERICAL STRENGTH.

19. The average monthly number on the rolls, and the average daily attendance, during the last two years are as follows:—

			Average Monthly No.	Average Daily Attendance.
1916-17	..	..	193	173
1917-18	..	..	201	176

In recent years, the numbers have remained practically stationary. The total number on the rolls (including I.Sc. students) at the date of our inspection was 190, as compared with a total of 184 on the rolls on July 31st, 1915, and 189 on the same date in 1914. The number of students on the rolls in July 1907 was 53.

RESULTS IN UNIVERSITY EXAMINATIONS.

20. A full analysis of the results in each subject at the I.A. and B.A. examinations conducted by the Patna University this year and at the same examinations conducted by the Calcutta University in 1917 is contained in Appendix IV. It is worth noting that the percentage of passes from this College in English in the I.A. examination this year was as high as 93·7, as compared with a corresponding percentage of 50 last year. A reference may be made on this point to para. 22 of the report on the T.N.J. College, Bhagalpur. The percentage of passes in the I.A. and B.A. examinations amongst candidates from this College, together with the corresponding percentage for candidates from Bihar and Orissa as a whole, during the last five years is given below. From this it will be seen that the results obtained maintain a consistently high level.

			I.A.	B.A.
1914	..	..	61·1 (33·2)	44·4 (40·8)
1915	..	..	67·5 (47·2)	79·9 (54·4)
1916	..	..	68·7 (46·3)	56·2 (52·9)
1917	..	..	48·9 (41·07)	44·4 (47·2)
1918	..	..	68·5 (50·7)	52·6 (42·2)

COLLEGIATE LIFE.

21. The fact that two European Professors and 50 per cent of the students reside in the College makes it possible to develop collegiate life here under unusually favourable conditions. There is a Dramatic Society, which gave an excellent performance of a Hindi play (in aid of Red Cross Funds) at the time of our visit; there is a College Magazine; and there is a flourishing Literary and Debating Society. During the session 1917-18 this Society held six literary meetings and 11 debates, all of which were presided over either by Mr. Kennedy or by Mr. Stevenson. Some fresh and stimulating topics were discussed, such as: "That India is in more urgent need of primary education than of higher education"; and "That the development of industry in India is a more urgent need than the need for primary educa-

tion." Prizes are given for essays and oratory. The Social Service Guild is a College Society of a somewhat unique kind. The membership of the Guild has increased this year from 40 to 67. The members are divided into six groups, each having its own secretary and taking as its special province of work one of six selected villages in the vicinity of Hazaribagh. The members are expected to pay regular visits to these villages, and to interest themselves generally in the welfare of the villagers, spreading knowledge among them of elementary sanitation and the like. A special feature of the work is care of the village schools maintained by the Guild. This year athletic sports were organized by the Guild for the boys reading in these schools. These proved a great success; and it is intended to make them an annual event. The College possesses excellent facilities for athletics; but it would be a good thing in a residential college like this, if funds permitted, to have a Gymnasium and organized physical exercise under a qualified instructor. Cricket is a very popular game; there are three pucca Tennis Courts; and football and hockey are also played. This year the football season was unfortunately marred by dissension between the Behari and Bengali students; and the Principal was obliged to scratch the College team in local competitions. Some plan will have to be devised for securing fair representation of all interests. The various subscriptions paid by students are stated in para. 5 above.

22. Mention ought to be made of the "extension" lectures given by members of the College staff, usually three in every term. These lectures, which are of a popular character, are given sometimes in the College hall and sometimes in the public hall in the town. They serve a most useful purpose, first by giving the lecturer an incentive in his private studies, and secondly by affording the general public an opportunity of sharing in the intellectual life of the College.

STATE OF DISCIPLINE.

23. Good discipline appears to be maintained; but no record is kept of cases of misconduct. We think that such a record should be kept. We suggest also that, from time to time, the hostel superintendents should pay surprise visits at night to see that all boarders are in their rooms.

RESIDENCE OF STUDENTS.

24. In his report on the College in 1907 (University of Calcutta: Reports on the Inspection of Moffusil College, 1908, p. 44) Mr. J. A. Cunningham wrote:—"The College as it stands represents the most solid embodiment of the residential ideal yet carried out in Bengal." This remains substantially true, at any rate of our own province, up to the present day. The residential part of the College consists of three blocks, there being a resident superintendent in each block, *viz.* Mr. Kennedy, Mr. Stevenson and Mr. Kachehhap. All the rooms are single-seated, well-lighted and well-ventilated. There is at present accommodation for 94 boarders. The medical attendant visits the hostels once a week, and oftener if required to do so by the Principal. There are the usual roll-call and gate books. The latter are in the keeping of the Darwan. They should be kept, and entries made, by the superintendents. The sanitary arrangements are not adequate, there being only eight seats in the day latrines for 94 boarders. In four of the latrines the seats are not cemented, and cannot therefore be kept absolutely clean and dry. There are six messes under the management of the boarders, the accounts of the mess-manager being checked each month by the Principal. There are two Bengali messes (orthodox and cosmopolitan), two Behari messes (vegetarian and non-vegetarian), a Muhammadan and a Christian mess. Messing charges range from Rs. 8-8 to Rs. 17 a month. The hostel fees are as follows:—

Seat-rent (ground floor) ..	..	Rs. 2
" (first floor) ..	..	" 3
Service ..	..	Re. 1 Admission fee Rs. 5.
Electric light ..	..	Re. 1-8

25. There are no attached messes. A students' residence committee should be formed to visit the town students and investigate the conditions under which they live and the *bona fides* of their guardians.

II. CHEMICAL LABORATORY.

26. CHEMISTRY STAFF.

Name.	Post held.	Academical qualifications.
H. C. Mukherjee ...	Professor of Chemistry ..	M.A., Calcutta, 1911, Second Division, Chemistry in the M.A. (special branch Inorganic).
Jaimassi ..	Assistant. ..	<i>Nil.</i>

MENIAL STAFF.

There has hitherto been no separate staff for the Chemical Laboratory, one bearer should be appointed for Chemistry, and one sweeper for the whole of the Science block.

27. GRANTS.

No fixed sums are allotted. In the year 1917-18 the total grant was Rs. 500, in the year 1918-19 Physical Laboratories, Rs. 700.

28. APPARATUS.

Condition of apparatus Good.

29. ACCOMMODATION.

There is ample accommodation for students taking this subject. The laboratory, lecture theatre, preparation rooms, balance room, store room, and Professors' room are of ample size, well-ventilated. In the laboratory the total number of lockers in the benches is 104. This gives accommodation for 52 first year students, the maximum number of students who can work in one batch being 36.

In the lecture theatre the total length of seats is 157 ft. allowing $1\frac{1}{2}$ ft. for each student. This gives accommodation for 104 students.

The number of students present on the rolls is as follows:—

I.Sc. first year	..	..	..	..	14
,, second year	..	..	..	..	7
I.A. first year	..	..	..	..	36
,, second year	..	..	..	..	34
					—
			Total	..	91
					—

30. PHYSICS STAFF.

None at present.

31. DIMENSIONS OF ROOMS.

In	{	Main laboratory..	..	30' × 25'	plus wave windows 900 sq. ft.
		Theatre ..	..	35' × 25'	
		Electrical Room	..	15' × 25'	
		Optical Room ..	..	10' × 25'	
		Preparation Room	..	15' × 25'	
		Dark Room.			

All these rooms are suitably constructed for the purpose and fitted with gas and water. The main laboratory and the theatre are furnished. The other rooms are not yet furnished. In the theatre there is seating accommodation for 75 students allowing 1.6ft. per student, and in the laboratories 36 I.Sc. students could work at a time.

32. EQUIPMENT.

The Physical apparatus at present in the College is not sufficient for I.Sc. work. Before affiliation in Physics can be given it will be necessary:—Firstly to appoint a Professor of Physics, secondly for the Professor to draw up a list of apparatus which it is proposed to purchase and send the same to the University for approval (the list given in the report on Patna College will serve as a useful guide), and thirdly to complete the furnishing of the laboratories.

A workshop and a suitable mistry would be a most useful addition not only to the Science Laboratories but to the College itself.

33. Provided that all the above mentioned conditions are carried out to the satisfaction of the Syndicate by the commencement of the session, we recommend that the College be admitted up to the I.A. and I.Sc. standard in Physics.

III. BOTANICAL LABORATORY.

34. BOTANY STAFF.

Name.	Post held.	Academical qualifications.
Mr. D. K. Roy	Professor of Botany	B.A., Calcutta, B.Sc., Edinburgh.

MANUAL STAFF.

One bearer on Rs. 6

35. The theatre, laboratory, preparation room, store room are all suitably constructed and are of the same size as the corresponding rooms in Physics.

36. No. of students at present on the rolls are:—

First year	..	..	..	..	..	33
Second year	..	..	..	..	..	18

37. There is no botanical garden. This might be situated in the quadrangle.

38. The annual grant for the last two years was Rs. 500.

APPENDIX II.

Qualifications, Length of Service and Present Pay of Teaching Staff.

Name.	Post.	Qualifications.	Length of Service.	Present Pay.	REMARKS.
1. The Rev. H. G. S. Kennedy	Principal and Professor of Philosophy.	M.A. (Dublin), 1914; Senior Mod. and Gold Medalist in Ethics and Logic, 1907.	3 years (one year as Principal).	Rs.	
2. „ G. C. P. Stevenson	Vice-Principal and Professor of English.	B.A. (Dublin); Ex-Scholar, Senior Mod. and Gold Medalist, Mod. Literature, 1911.	1 year.		
3. „ J. C. Forrester ..	Professor of Mathematics ..	M.A. (Dublin), 1901; Ex-Scholar and First of First Honours in Mathematics.	10 years.		
4. Prof. P. K. Nundy ..	„ „ English ..	Cambridge Prelim. Examination, 1877; and Final Exam. Certif. Bishop's College.	11 „	190	Includes Rs. 30 for tutor work; Rs. 10 for Honours.
5. „ K. S. Ghosh ..	„ „ Philosophy ..	M.A., II Class, 1907 (P.C.M. Medalist; P.C. Smith's Prize-holder).	8 „	200	
6. „ J. N. Maitra ..	„ „ History ..	M.A., III Class, 1911; B L., 1913.	6 „	170	
7. „ H. C. Mnkherjee ..	„ „ Chemistry ..	M.A., II Class, 1911 ..	6 „	230	Includes Rs. 15 for Physics; Rs. 15 for Vernacular work.
8. „ D. K. Roy ..	„ „ Botany ..	B.A. (Cal.), 1904; B.Sc. Edinburgh, 1911.	4 „	215	
9. „ P. C. Bose ..	„ „ Economics ..	M.A., II Class, 1912 ..	4 „	210	
10. Mr. B. D. S. Chaudhuri	Lecturer in Persian ..	.....	19 „	80	Includes Rs. 20 for Vernacular work.
11. Babu C. C. R. Chaudhuri	„ „ Mathematics ..	B.A., 1906 ..	8 „	90	Includes Rs. 15 for Vernacular work.
12. Mr. C. P. Kachchhap ..	Tutor in English and Lecturer in Mathematics.	B.A., 1915 ..	Apptd. this year.	107	Includes Rs. 7 as resident supdt. in Hostel.

APPENDIX III.

Weekly Curriculum of Teaching in Arts Subjects, 1918-19.

Class.	Name of Teacher.	No. of Lectures.	No. of Tutorial Periods.	No. of Students in Class.	No. of Tutorial Batches.
ENGLISH.					
Fourth year ..	The Rev. G. C. P. Stevenson	2	..	4	(1)*
(Hons.)	Mr. P. K. Nundy ..	2 (a)	..	..	..
Fourth year ..	The Rev. G. C. P. Stevenson	3	1½	31	3 } 4
(Pass)	Mr. P. K. Nundy ..	4	½	..	1 }
Third year ..	The Rev. G. C. P. Stevenson	..	1	7	1
(Hons.)	Mr. P. K. Nundy ..	3 (a)	..	..	..
Third year ..	The Rev. G. C. P. Stevenson	3	2	28	2
(Pass)					
Second year ..	Mr. P. K. Nundy ..	5	½	59	1 } 11
	Mr. C. P. Kachchhap ..	..	5	..	10 }
First year ..	Mr. P. K. Nundy ..	3	5	72	5
PERSIAN.					
Fourth year ..	Mr. B. D. S. Chaudhuri ..	4	..	9	(1)*
Third year ..	" " " ..	3	1	3	1
Second year ..	" " " ..	4	..	14	(1)*
First year ..	" " " ..	3	1	8	1
PHILOSOPHY AND LOGIC.					
Fourth year ..	Principal ..	4	..	14	(1)*
	Prof. K. S. Ghosh ..	3	..	..	..
Third year ..	Principal ..	2½	½	18	1
	Prof. K. S. Ghosh ..	2½	½	..	..
Second year ..	Principal ..	5	..	53	(4)*
First year ..	Prof. K. S. Ghosh ..	3	4	62	4
HISTORY.					
Fourth year ..	Prof. J. N. Moitra ..	5	..	16	(1)*
Third year ..	" " " ..	3	1	14	1
Second year ..	" " " ..	5	..	21	(2)*
First year ..	Prof. P. C. Bose ..	3	2	29	2
MATHEMATICS.					
Fourth year ..	The Rev. J. C. Forrester ..	5	..	6	(1)*
Third year ..	Mr. C. P. Kachchhap ..	3	1	3	1
(Hons.)					
Third year ..	The Rev. J. C. Forrester ..	4	1	8	1
(Pass)					
Second year ..	Babu C. C. Roy Chaudhuri ..	5	..	30	(2)*
First year ..	" " " ..	3	3	42	3
ECONOMICS.					
Fourth year ..	Prof. P. C. Bose ..	5	..	16	(1)*
Third year ..	" " " ..	3	1	13	1

* The numerals in brackets represent the number of batches required by the Regulations, the numerals without brackets represent the number of batches actually formed at the time of inspection.

(a) Twice a week Mr. Nundy lectures to the third and fourth year classes jointly.

APPENDIX IV.

Results in University Examinations, 1917 and 1918.

	SUBJECT.								Results as a whole.
	English.	Persian.	History.	Logic and Philosophy.	Mathematics.	Economics.	Chemistry.	Botany.	

I.A. EXAMINATION, 1917.

No. of candidates who appeared.	44	15	25	43	10	..	25	12	No. in (English) class ..	56*
No. who passed ..	22	15	21	41	10	..	19	9	No. sent up ..	45
Percentage of passes	50	100	84·0	95·3	100	..	76	75	No. appeared ..	44
No. who failed in this subject only.	9	<i>Nil</i>	1	<i>Nil</i>	<i>Nil</i>	..	<i>Nil</i>	<i>Nil</i>	No. who passed ..	22
									Percentage of passes on no. who appeared ..	50

I.A. EXAMINATION, 1918.

No. of candidates who appeared.	48	7	23	50	22	..	29	15	No. in (English) class ..	68
No. who passed ..	45	7	21	44	20	..	24	14	No. sent up ..	54
Percentage of passes	93·7	100	91·3	88	90·9	..	82·7	93·3	No. appeared ..	48
No. who failed in this subject only.	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	1	1	..	1	1	No. who passed ..	37
									Percentage of passes on no. who appeared ..	68·5

B.A. EXAMINATION, 1917.

No. of candidates who appeared.	34 ^(a)	7	14	24	5	18	..	..	No. in (English) class ..	36*
No. who passed ..	22	7	7	20	5	13	..	..	No. sent up ..	36
Percentage of passes	64·7	100	50	83·3	100	72·2	..	..	No. who appeared	34
No. who failed in this subject only.	2	<i>Nil</i>	2	<i>Nil</i>	<i>Nil</i>	1	..	..	No. who passed ..	16
									Percentage of passes on no. who appeared ..	47·1

B.A. EXAMINATION, 1918.

No. of candidates who appeared.	37 ^(b)	12	19	20	9	13	..	..	No. in (English) class ..	39
No. who passed ..	22	12	12	16	7	8	..	..	No. sent up ..	38
Percentage of passes	59·4	100	63·1	80	77·7	61·5	..	..	No. who appeared	37
No. who failed in this subject only.	3	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	1	1	..	..	No. who passed ..	20
									Percentage of passes on no. who appeared ..	52·6

* Of whom one was an ex-student.

(a) Of these three appeared in Hons. English, of whom two secured second class Honours, and one passed.

(b) Of these four appeared in Hons. English, of whom one secured second class Honours, and one passed.

VII.

REPORT

ON

DIAMOND JUBILEE COLLEGE, MONGHYR,

FOR 1918-19.



The College was affiliated to Calcutta University in the following subjects up to the standard mentioned :—

Subjects—English, Vernacular Composition, Sanskrit, Persian, Logic, History and Mathematics up to the I.A. Standard.

(The inspection was conducted on September the 23rd, 1918, by the Rev. J. C. Forrester and Mr. E. A. Horne).

I. GENERAL.

ADMINISTRATION.

1. The Governing Body is composed of the following :—

The District Magistrate, Chairman *ex officio*.

The Hon'ble the Maharaja Bahadur of Gidhour.

Raja Kamaleshwari Prasad Singh.

The Hon'ble Kumar Shivanandan Prasad Singh, O.B.E., *Secretary*.

The Principal, *ex officio*.

Babu Satya Ranjan Ray, M.A., Professor of English.

The Senior Subordinate Judge, *ex officio*.

Babu Hem Chandra Bose, M.A., B.L., Public Prosecutor.

The Deputy Inspector of Schools, *ex officio*.

Babu Deokinandan Prasad Singh.

A. Wahab Khan, Esq.

Hitherto the Municipality has nominated three members, but as municipal aid is no longer given this arrangement is to terminate. In place of the Senior Sub-Judge and the Deputy Inspector of Schools will be substituted the District Judge and the Inspector of Schools, respectively. One member will be elected by the teaching staff. The Governing Body, as reconstituted, will consist, therefore, of these three gentlemen together with the first five of those named above. There does not appear to be, at present, any regular constitution; but members are co-opted when vacancies arise. A sub-committee has been appointed to frame rules for the conduct of business. The last three meetings of the Governing Body were held on June 12th, 1917, April 30th, 1918, and August 12th, 1918. The proceedings of these meetings have been recorded.

2. There is no College Council, and no regular meetings of the teaching staff.

3. There is one clerk on Rs. 20; and the menial staff consists of a chaprasi (Rs. 7), a chowkidar (Rs. 5), a bhisti (Rs. 4), and a sweeper (Rs. 2).

REGISTERS.

4. *Admission Register*.—No record of age is kept. *Attendance register*:—There are numerous blanks left. No blanks should be left, as fraud is thus facilitated. The monthly attendances have not been totalled. The

only account books are *Cash Book* and *Fee Collection Book*. All monies are lodged in the Government Treasury, and payments made by drafts thereon. There is no office safe; and accumulations of several days' receipts are kept by the Principal in an office box, which he carries with him daily to and from College. This is a most undesirable practice. The *Fee Collection Book* appears to be kept regularly. There is no receipt book. The accounts were last audited in January 1916; no audit report was forthcoming. Vouchers for payment are presented to the Treasury, and then filed. The system of accounts is old-fashioned, and there is no adequate provision to prevent fraud. The following registers and books are also kept. *Register of Transfer Certificates*; *Marks Register*; *Staff Attendance Book*. No conduct book was forthcoming all the time of our visit. The Principal informed us that the students are never guilty of any more serious offence than quarrelling about seats. No cases of cheating at examinations have been detected. Students are not required to fill up and present any admission form.

FINANCE.

5. The fees have been raised from Rs. 4 to Rs. 4-8 per month from the beginning of the current session. Students pay an annual subscription of Re. 1 to the Athletic Fund and Re. 1-8 to the Common Room. The admission fee is Rs. 4-8. There has been in the past an excessive number of free studentships. In January of this year there were 10 free students out of a total of 33 in the second year class, and 7 out of 36 in the first year class. At present there are 6 free students in the second year out of 44, and only 1½ free studentships in the first year. The income of the College is derived from the following sources:—

Fees.	
Ulaio Endowment	Rs. 1,200
Bahadurpur Endowment	700
Bahadurpur Endowment for medals	70
Interest on Rs. 4,000 (face value) invested in 3½ per cent. Government paper	140
Interest on Rs. 15,000 invested in 4 per cent. Railway Stock (now fully paid up)	600

The Ulaio endowment is irregularly paid, and cannot be depended on. The Bahadurpur endowment is paid regularly by the Court of Wards. Medals are not awarded, and the sum of Rs. 70 provided for this purpose is absorbed in the general College funds. The estimated receipt for the current session are fees, Rs. 4,000; Bahadurpur Endowment, Rs. 770; interest from investments, Rs. 740; total Rs. 5,510. Adding the uncertain Ulaio Endowment, the total is Rs. 6,710. The estimated expenditure is: permanent Establishment, Rs. 6,336; Miscellaneous, Rs. 644; Total Rs. 7,000. The estimate for miscellaneous expenditure contains no proper provision for repairs or library. In spite of the fact that the number of students has greatly increased, the financial condition of the College is seen, therefore, to be unsatisfactory. The annual deficits, which for the last three years alone aggregate close on Rs. 10,000, have been met out of capital; and in this way has gone Rs. 5,000 out of the sum of Rs. 20,000 paid by Government in 1915 for the buildings, formerly the property of College, in the compound of the Zilla School. Attempts have been made to enlist the sympathy of the local gentry; but although financial support has been promised nothing has been paid, and we were informed that financial aid from this source was not to be expected. The last District Magistrate made unsuccessful efforts in this direction. We conclude, therefore, that the local wealthy landowners and merchants are indifferent to the welfare of the College, and even its existence. A proposal has recently been made by Government to give a grant-in-aid of Rs. 250 per month for one year, together with Rs. 750 per annum for contingencies, and Rs. 250 per annum for the library; and, further, to provide a building at a monthly rental of Rs. 150. The conditions on which this aid is to be granted are (a) that the salaries of the staff be as follows:—

	Rs.	At present Rs.
Principal and Professor of Mathematics ..	200	175
Professor of English	150	125
Lecturer in Logic	100	100
,, ,, History	100	new post
Pandit	60	45
Maulvi	60	45
Clerk and Librarian	30	20
Menial establishment	25	18
TOTAL	<u>725</u>	<u>528</u>

(b) that the College be removed at once to its new premises. We understand, however, that the owner of the house selected by Government is unwilling to let it, as he needs the house for his own use. We visited another house (the late Mr. Jolly's), which has been suggested as suitable. This house, which is well enough situated, is derelict, and before occupation would require very considerable repairs. Even if thoroughly repaired, we consider the house unsuitable for use as a College. The construction and arrangement of the rooms are bad; and many of the rooms are dark and ill-ventilated. Apart from the question of a suitable building, however, the financial stability of the College, under the conditions laid down for the acceptance of the grant, is by no means assured. The annual expenditure would be Rs. 9,700 (viz. Establishment, Rs. 8,700; Contingencies, Rs. 750; Library, Rs. 250). The annual income would be Rs. 10,710 (viz. fees, Rs. 4,000; Ulaio Endowment, Rs. 1,200; Bahadurpur Endowment, Rs. 770; interest from investments Rs. 740; Government grant Rs. 4,000). Excluding the Ulaio Endowment which cannot be counted on, the total income is Rs. 9,510, which is insufficient (even assuming that the present numbers and fee income are maintained) to balance the estimated expenditure. In view of this and of the evident unwillingness of the local gentry to support the College financially, and in the absence of any suitable building, we cannot consider it either wise or useful to make a grant-in-aid to this College, as it is at present constituted and managed, even if second-grade colleges are considered desirable and capable of giving an education of a University standard. Further particulars regarding the College finances are given in Appendix I.

BUILDINGS.

6. The buildings consist of a one-storied line, abutting on the road. There are five rooms in this line. A Science room, which is not used; a second year class-room about 42 by 15 feet, of which a length of 14 feet is screened off by almirahs to form the Principal's office, Library and Professors' room; a Persian class-room; a first year class-room 21 ft. by 15 feet; and a Students' Common Room. On the other side of the courtyard, facing the aforementioned line, is a row of ruinous single-storied rooms, distant from the entrance by about 50 feet. The two ends of the courtyard are occupied, respectively, by malis' shed and latrine and by two rooms, one of which serves as dormitory for six students and the other as their kitchen and dining-room. The dust and noise from the road are most unpleasant and distracting. We were told that the Science room (which could be made the office) was not used because the roof leaked badly. This was not surprising information, as rank grass growing on the roof was visible from the courtyard. No attempt, it is evident, has for a long time been made to keep the roof, which was once pucca, free from vegetable growth. There has been no expenditure on repairs for some time; and no regular provision is made for this purpose. On the other side of the road, facing the College, is a veterinary hospital. There is a municipal cesspool near by. Twice a month this is cleaned, and the process is most offensive to professors and classes. The rooms are light and airy, but the air is bad. The sanitary arrangements are tolerably good. The few shaky tables, benches and desks can hardly be called furniture. On the whole, the buildings and surroundings are almost as bad as they can possibly be.

7. No residences are provided for the staff.

LIBRARY.

8. The Library, we were informed, contains some 750 volumes. These are mostly text-books. A sum of Rs. 120 was sanctioned last year for the purchase of books; but only Rs. 13-6 was actually spent on the library in 1916-17, and Rs. 18-12 in 1917-18. But little use is made of the library. There is a catalogue; but it is not quite up-to-date, we were told.

TEACHING STAFF.

9. Particulars as to the qualifications, period of service, and present pay of members of the teaching staff are given in Appendix II. In January of the present year Babu S. N. Ray, M.A., succeeded Babu N. C. Guha as Lecturer in Logic and History. Babu S. N. Ray left the College on casual leave on September 7th last. He has since resigned his appointment, and his successor, Babu G. C. Datta, M.A., entered on his duties on the day of our inspection, September 23rd. There have been no other changes.

COLLEGE CURRICULUM.

10. Detailed particulars regarding the weekly curriculum followed in each subject will be found in Appendix III. Provision is made for the following subjects and combinations of subjects in Intermediate Arts.

- English, Vernacular Composition, Logic, with—
 (1) a Classical Language and History;
 (2) " " " " Mathematics;
 (3) History and Mathematics.

In the present second year class three students out of 44 have taken up group (3); in the first year class no student has taken up this group.

11. The number of periods of College work (including one lecture a week on the Vernaculars) is shown below for each year. The period is usually of one hour; but some of the periods on Friday and Saturday are of 45 minutes only.

Second Year.

Group (1)	..	..	..	lectures : 19	} 23 periods.
				tutorials : 4	
Group (2)	..	..	..	lectures : 20	} 24 "
				tutorials : 4	
Group (3)	..	..	..	lectures : 19	} 23 "
				tutorials : 4	

First Year.

Group (1)	..	..	..	lectures : 17	} 22 periods.
				tutorials : 5	
Group (2)	..	..	..	lectures : 19	} 24 "
				tutorials : 5	

12. We may compare this with the routine followed in 1914-15, when tutorial instruction was given in English, Logic and History, but not in other subjects.

		July 1914.	July 1918.
Second year	..	25 periods.	23 to 24 periods.
First year	..	20 to 22 periods.	22 to 24 periods.

In English six lectures are now given in each class, as compared with five lectures formerly; but in the second year two periods of tutorial instruction used to be given, as compared with only one at present. In Logic and History (for which subjects now, as formerly, there is only one teacher) the instruction given in the first year has remained unchanged, viz. three lectures and one tutorial in each subject. In the second year formerly five lectures and one tutorial were given in each subject, whereas at present only three lectures are given in Logic with one tutorial, and in History four lectures and one tutorial. In other subjects the number of periods has remained unchanged, viz. six periods per week in each class.

13. Teaching work is distributed amongst the various members of the staff as follows:—

Subject.	Name of the Teacher.	No. of Lectures.	No. of Tutorial Periods.	Total.
English ..	Babu S. R. Ray	12	6	18
Sanskrit ..	Pandit B. K. Misra	9	3	12
Persian ..	Maulvi S. A. Hussain	9	3	12
History and Logic	Babu G. C. Datta	13	9	22
Mathematics ..	Principal	10	2	12

14. Lectures on the Vernaculars (one per week in each class) are delivered by Pandit B. K. Misra in Hindi, and by Maulvi S. A. Hussain in Urdu. They receive no extra remuneration for this work; nor is it necessary that they should, since their work is light in any case. We noted that Maulvi S. A. Hussain delivered no lectures in Urdu on the 10th or 24th of August, though he attended College on those days. In Bengali the Principal has been lecturing regularly to the first year class, which consists of 4 students. In the second year class, which consists of 11 students, no lectures have yet been delivered. It appears that the Professor of English asked for extra remuneration, if required to lecture to the first and second year classes in Bengali; but at a meeting of the Governing Body, held on August 12th, 1918, an alternative proposal was adopted whereby an outsider was to be appointed to do the work at a somewhat lower rate of remuneration than that demanded by the former. No action of any kind, however, has since been taken. This is thoroughly unsatisfactory. The appointment of an outsider is undesirable and unnecessary. The Professor of English is not so overburdened with work that he cannot undertake two extra periods of teaching. At the same time, he has some claim to additional remuneration, which might be fixed, as at the T.N.J. College, Bhagalpur, at Rs. 20 a month.

15. We noted several serious irregularities. In the time-table which was submitted to us, as also in the attendance registers, provision is made for breaking up the second year class into three tutorial batches in Logic, and into two tutorial batches in History. The late Lecturer in Logic and History reduced the number to two and one, respectively. He further reduced the number of tutorial batches in History in the first year class from two to one. Again he was represented to us as delivering three lectures in Logic in the second year class, but there is provision in the time-table for two lectures only. Thus his teaching work amounted, nominally, to 22 periods per week; but in actual fact it amounted to 18 periods. We observed also that Maulvi S. A. Hussain, although his duties are light, has failed to split up his classes, consisting of 28 and 22 students respectively, into two batches, as required by the Regulations.

16. Certain remarks as to the tutorial work in English are contained in the Supplementary Note A.

REORGANIZATION OF TEACHING STAFF.

17. It appears to us that if this College is to be made an efficient institution, teaching up to the I.A. standard, there must be a thorough reorganization of the teaching staff. Our recommendations are as follows: The present principal, though an experienced and well-qualified teacher, has long passed the usual age for retirement. His place should be taken by a younger man, possessing the necessary qualifications for the post. An additional lecturer should be appointed to teach History, and assist with the teaching of English; and the present lecturer in Logic and History should devote the whole of his time to Logic. We think it most desirable

that in a University institution, more especially in one with a teaching staff as limited as that we are considering, the Lecturers in Sanskrit and Persian, who also teach Vernacular Composition, should be men who themselves possess University qualifications. Neither the present pandit nor the maulavi know English; and both are near the age of retirement. Finally, in order to attract and retain the services of competent men, we consider that the following scale of salaries should be laid down as the minimum permissible:—

Principal and Professor of Mathematics	..	250—10—300
Professor of English	.. ..	150—10—200
Lecturer in Logic	.. ..	100—10—150
„ „ History (and Asst. in English)	.. ..	100—10—150
„ „ Sanskrit	.. ..	100—10—150
„ „ Persian	.. ..	100—10—150

If the Principal were also Professor of English, instead of a second Professor of English on Rs. 150—10—200, there would be then a lecturer in Mathematics on Rs. 100—10—150.

NUMERICAL STRENGTH.

18. Particulars as to the average monthly number on the rolls, and the average daily attendance, during the last two years were not obtainable. The growth of numbers during the past five years is shown below. The number in 1907 was 16.

1914	.. ..	24
1915	.. ..	33
1916	.. ..	56
1917	.. ..	68 (Nov. 30th.)
1918	.. ..	82

RESULTS IN UNIVERSITY EXAMINATIONS.

19. An analysis of the College results in each subject at the I.A. examination conducted by the Patna University this year and at the same examination conducted by the Calcutta University in 1917 is contained in Appendix IV. In connection with what is said elsewhere as to the results this year in Intermediate English, it is significant that all the 22 candidates who appeared in this subject passed. Last year 22 candidates appeared, out of whom 13 or roughly 60 per cent. passed. The percentage of passes secured by candidates from this College at the I.A. examination together with the corresponding percentage for candidates from Bihar and Orissa as a whole, during the last five years is as follows:—

1914	.. ..	0	(33·2)
1915	.. ..	100	(47·2)
1916	.. ..	66·6	(46·3)
1917	.. ..	37·9	(41·07)
1918	.. ..	59·1	(50·7)

COLLEGIATE LIFE.

20. Collegiate life can hardly be said to exist, and is hardly to be expected under existing conditions. The Professor of English holds, more or less regularly, every Saturday afternoon a debating meeting at which essays are read and discussed. In practice, however, this is part of the compulsory routine, and is confined to first year students, the second year class being dismissed earlier in the day. The Professor of English is also doing his best to introduce greater variety into the literature provided in the Common Room. The subscription has been raised this year from Re. 1 to Re. 1-8 per head. The monitor, as the student who acts as secretary of the Common Room is called, issues the magazines to students after they have lain on the table for a week.

The students subscribe Re. 1 to an Athletic fund. Last year a field within the Fort was rented as a playground; but this year it could not be

obtained, and no other has been found. There have consequently been no College games this session. Of the money collected in subscriptions this year, Rs. 18 was spent on a football, and the balance remained in the hands of the late Professor of Logic at the time of our inspection. We think it desirable that accounts should be opened with the Post Office Savings Bank both for Common Room and Athletic funds. In the case of the Common Room a proper statement of receipts and expenditure was shown us; but no similar statement for the Athletic fund was forthcoming.

STATE OF DISCIPLINE.

21. No conduct register was forthcoming at the time of our visit. The Principal stated that he had no recollection of ever having had to punish students though sometimes he had to check them.

RESIDENCE OF STUDENTS.

22. There is no hostel or attached mess. Six students live in a dark room at one end of the courtyard of the College, there being two windows opening directly on to the road. As the roof is of nariya tiles, and not in good repair, the ventilation is sufficient. There is no seat-rent charged. We were informed that until he left, the late Professor of Logic and History was the nominal guardian and superintendent of the six students living in this room; but he resided in Jamalpur, and left for home daily about 5 P. M. From the date of his departure (Sept. 7th., last) until the date of our inspection (Sept. 23rd), there was no superintendent, but the entire staff, as we were informed by the Principal, interested themselves in the well-being of the boarders. No roll is called. There is no gate-book. There is nothing to prevent a boarder being out all night without the knowledge of the College authorities, unless the monitor or another of his fellow-boarders reports him. Inclusive boarding charges amount to about Rs. 10, and we were informed that the boarders lived on about Rs. 15 a month inclusive of tuition fees and all other expenses. With the exception of these six boys, all the students live in the town. At its meeting on April 30th, 1918, the Governing Body resolved on the establishment of an attached mess for 10 students, with the Professor of Logic and History as superintendent. No action, however, has yet been taken. We understand that the newly appointed Professor of Logic and History will be asked to take action in the matter.

FUTURE OF THE COLLEGE.

23. If the College is to retain its privileges, and to continue to form part of the University, we are of the opinion that the following requirements should be fulfilled at a very early date:

- (1) An immediate removal to suitable premises.
- (2) Adequate arrangements for the supervision of the residence of students and the provision of at least one attached mess with a resident superintendent.
- (3) An entire reorganization of the College office.
- (4) The provision of an adequate library.
- (5) Reorganization of the teaching staff according to the proposals contained in para. 18 above,

APPENDICES.

APPENDIX I.

Abstract Statement of Income and Expenditure.

	INCOME.									EXPENDITURE.									
	1915-16.			1916-17.			1917-18.			1915-16.			1916-17.			1917-18.			
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	
Fees and fines ..	1,330	0	0	1,889	0	0	2,261	11	0	Teaching Staff ..	5,376	10	9	6,006	1	11	5,808	0	0
Endowments ..	770	0	0	770	0	0	2,770	0	0	Clerical ,, ..	220	0	0	240	0	0	240	0	0
Interest from invested funds	240	3	10	386	11	6	390	14	6	Menial ,, ..	216	0	0	216	0	0	216	0	0
										Furniture ..	30	0	0	....			....
										Library ..	45	0	0	13	6	0	18	12	0
										Repairs ..	274	8	7	247	0	0	....	
										Miscellaneous ..	653	3	9 ^(a)	659	11	4 ^(b)	169	7	10
TOTAL ..	2,340	3	10	3,045	11	6	5,422	9	6	TOTAL ..	6,815	6	4	7,382	3	3	6,452	3	10

(a).—Includes expenditure of Rs. 432 incurred in connection with the sale of former College and hostel buildings.

(b).—Includes payment of arrears of municipal taxes on present College buildings, amounting to Rs. 481-9-3.

Note.—The above annual deficits, amounting in the aggregate to Rs. 9,841-4-7, have been met out of capital.

APPENDIX II.

Qualifications, Length of Service and Present Pay of Teaching Staff.

Name.	Post.	Qualifications.	Length of Service.	Present Pay.	REMARKS.
1. Babu B. N. Bose ..	Principal and Professor of Mathematics.	M.A., with Honours in Mathematics, 1872.	20 years ..	Rs. 175	
2. „ S. R. Ray ..	Professor of English ..	M.A., III Class, 1902 ..	7½ „ ..	125	
3. „ G. C. Datta ..	„ „ Logic and History	M.A., in Philosophy, III Class, 1914 ; in History, III Class, 1916.	Apptd. this year ..	100	
4. Pandit B. K. Misra ..	„ „ Sanskrit ..	Educated at Benares ..	13 years ..	45	
5. Maulavi S. A. Hussain ..	„ „ Persian ..	Educated at Delhi ..	11 „ ..	45	

APPENDIX III.

Weekly Curriculum of Teaching, 1918-19.

Class.	Name of Teacher.	No. of Lectures.	No. of Tutorial Periods.	No. of Students in Class.	No. of Tutorial Batches.
ENGLISH.					
Second year ..	Babu S. R. Ray ..	6	3	44	3
First year ..	„ „ ..	6	3	38	3
SANSKRIT.					
Second year ..	Pandit B. K. Misra ..	5	1	13	1
First year ..	„ „ ..	4	2	16	1
PERSIAN.					
Second year ..	Maulavi S. A. Hussain ..	5	1	28	1
First year ..	„ „ ..	4	2	22	1
HISTORY.					
Second year ..	Babu G. C. Datta ..	4	2	27	2
First year ..	„ „ ..	3	2	24	2
LOGIC.					
Second year ..	Babu G. C. Datta ..	3	3	44	3
First year ..	„ „ ..	3	2	38	2
MATHEMATICS.					
Second year ..	Principal ..	5	1	20	1
First year ..	„ ..	5	1	14	1

Note.—In addition to the above one lecture is delivered weekly on the vernaculars in each class.

APPENDIX IV.

Results in University Examinations, 1917 and 1918.

	SUBJECT.						Results as a whole.
	English.	Sanskrit.	Persian.	History.	Logic.	Mathematics.	

I. A. EXAMINATION, 1917.

No. of candidates who appeared.	29	11	17	19	29	11	No. in (English) class .. 36
No. who passed ..	13	7	17	19	23	10	No. sent up .. 29(a)
Percentage of passes ..	44·8	63·6	100	100	79·3	90·9	No. who appeared .. 29
No. who failed in this subject only.	9	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	1	<i>Nil</i>	No. who passed .. 11
							Percentage of passes on no. who appeared .. 37·9

I. A. EXAMINATION, 1918.

No. of candidates who appeared.	21	12	9	16	21	5	No. in (English) class .. 38
No. who passed ..	21	10	9	12	18	3	No. sent up .. 22
Percentage of passes ..	100	83·3	100	75	85·7	60	No. who appeared .. 21
No. who failed in this subject only.	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	3	<i>Nil</i>	1	No. who passed .. 13
							Percentage of passes on no. who appeared .. 65

(a) Includes three ex-students.

SUPPLEMENTARY NOTE A.

SUMMARY OF MAIN RECOMMENDATIONS.

(a) GENERAL.

1. Honours courses in Arts subjects: a greater degree of specialisation recommended. (See para. 21 of report on the T.N.J. College, Bhagalpur; also para. 13 of report on St. Columba's College, Hazaribagh.)

2. Length of tutorial (or lecture) period: necessary to amend Chapter XXIV of the Regulations. (See para. 13 of report on St. Columba's College, Hazaribagh.)

3. Results in Intermediate English this year: need for an enquiry. (See para. 23 of report on the T.N.J. College, Bhagalpur; also para. 20 of report on D.J. College, Monghyr; also para. 20 of report on St. Columba's College, Hazaribagh.)

4. It is a matter for consideration (and for joint action, if necessary, by the department responsible for Government forms and the University) whether a greater degree of uniformity might not be introduced with advantage in the various forms used at the different colleges; and whether these might not be simplified in certain cases, especially in that of accounts. [Patna Coll. p. 3, para. 4.]

5. All colleges should have a small isolation ward for cases of illness, as provided at Zilla schools.

(b) SPECIAL.

T.N.J. COLLEGE, BHAGALPUR.

1. Reorganization of clerical staff desirable (para. 3).
2. Limit to the numbers admitted to the different classes: should not exceed 600 in all (para. 7).
3. Additional Lecturer in Philosophy and Logic required (para. 17).
4. Admission to Honours teaching in English recommended (para. 19).
5. Admission to Honours teaching in Philosophy not recommended (para. 20).

D.J. COLLEGE, MONGHYR.

1. Immediate removal to suitable premises (para. 23).
2. Adequate arrangements for the supervision of the residence of students, and the provision of at least one attached mess with a resident superintendent (do.).
3. Entire reorganization of the College Office (do.).
4. Provision of an adequate library (do.).
5. Reorganization of the teaching staff according to the proposals contained in para. 18 (do.).

B.N. COLLEGE, BANKIPORE.

1. Limitation of the numbers admitted to the different classes: should not exceed 700 in all (para. 7).
2. Appointment of an additional Lecturer in Philosophy and Logic required (para. 17).
3. Appointment of an additional Lecturer in Persian and Urdu required (para. 17).
4. Admission to Honours teaching in Sanskrit recommended (para. 19).
5. Admission to Honours teaching in Philosophy not recommended for the present (para. 20).

G.B.B. COLLEGE, MOZAFFARPUR.

1. Reorganization of clerical staff desirable (para. 3).
2. Improvement of sanitary arrangements urgently required (para. 7).
3. Appointment of an additional Lecturer in Persian and Urdu required (para. 14).
4. Limits now fixed to the size of classes not to be exceeded (para. 15).

ST. COLUMBA'S COLLEGE, HAZARIBAGH.

1. Additional sanitary conveniences required (paras. 6 and 24).
2. Honours class in Mathematics should be dissolved (para. 11).
3. Either provision should be made for the teaching of Sanskrit in the College; or students offering Sanskrit as one of their subjects should be refused admission, whatever may be the special circumstances (para. 12).
4. A permanent addition to the English staff necessary (para. 17).

RAVENSHAW COLLEGE, CUTTACK.

1. Strengthening of the Philosophy staff should be made a condition of the continued recognition of Honours affiliation in this subject (para. 17).
2. Some temporary arrangement necessary for the residence of students over and above that provided by the present hostels, either in attached messes or otherwise (para. 23).

PATNA COLLEGE.

1. Strengthening of the clerical staff necessary (para. 3).
2. An additional monthly tuition fee of Rs. 2 for Honours teaching should be charged; and in post-graduate classes an admission and monthly tuition fee of Rs. 8 and Rs. 10 respectively should be charged as soon as full facilities have been provided for M.A. and M.Sc. teaching (para. 5).
3. The present rates of pay for menial servants (which date from 1860) should be raised, and should be from Rs. 8 as a minimum to Rs. 12 as a maximum (para. 8).

SUPPLEMENTARY NOTE B.

REPORT OF THE COMMITTEE OF UNIVERSITY INSPECTORS, 1918-1919.

METHODS OF TUTORIAL INSTRUCTION IN ARTS SUBJECTS.

1. The University Inspectors looked into the methods of tutorial instruction followed in all the Arts and Science Colleges. Interesting notes and statements were furnished to the Inspectors by a number of College Professors and Lecturers, explaining the methods of tutorial instruction followed by them. With the permission of the teachers concerned, the Inspectors attended a number of tutorial classes in different subjects. The following notes embody their general conclusions regarding the methods of tutorial instruction which may profitably be followed in colleges.

2. Great importance should be attached to regular home exercises in every subject of the curriculum. An exercise of this kind, e.g., an essay, should not be called for in any subject more than once a month. All exercises, whether done at home or in the class, should be written in a bound note-book kept for that purpose alone in each subject. Marks should be given for every exercise, and a record of marks should be kept. In this connection a remark of a Professor of Sanskrit in one of the colleges is worth quoting. "Tutorial classes," he says, "have given me an opportunity of marking the progress and merit of individual students. When a student fails to answer questions or otherwise betrays negligence of study, I put a mark against his name."

3. Home exercises as a rule, if carefully set, will form the best subject-matter for instruction in the tutorial class; and the class, so far as possible, should take the form of a conversation class in which the attention of every student present is engaged. Going over his exercise in class with each student singly may possibly be useful to the student, but seeing how limited is the time available for tutorial work this method should on no account be allowed to take the place of class instruction. The attention of every student should be engaged and he should be receiving instruction throughout the period.

4. Half the value of tutorial instruction depends upon its being systematic. The tutor should endeavour to make his corrections of the exercises the subject-matter of a "live" conversation class.

5. In one college there are weekly class exercises in some classes, and in other classes monthly class exercises. These exercises are corrected and marked by the staff at home, and they are made the basis of tutorial instruction. We are of opinion that the writing and correction of a class exercise in each subject every week places a considerable strain on the students and teachers alike; and, if adopted as a general plan, must lead to the neglect of home exercises which are more important. There is a danger of the class exercises becoming a weekly examination, more especially as the time for the Test and University Examinations approaches. Weekly examinations, in our opinion, are inferior, as a rule, to home exercises as a basis for tutorial work.

6. In one college the three following useful rules regarding class exercises have lately been adopted. These might well be adopted in other colleges, subject to the caution against the over-use of class exercises mentioned in the preceding paragraph:—

- (i) Every student must write his class exercises in a bound note-book kept solely for that purpose.
- (ii) The marks given for these class exercises are to be recorded, and will be taken into consideration in deciding the results of the

test and promotion examinations. No consideration, however, will be given to marks which fall below 30 per cent. of the maximum.

- (iii) Students absent without a valid excuse at the time fixed for a class exercise will be liable to a fine of Re. 1.

7. The method employed by a tutor in one of the colleges in the case of English essays is worth mentioning. Students are given a subject for an essay, and at the next tutorial hour each student is required to show up an outline of the essay he proposes to write. The outlines thus submitted are enlarged and improved. Each student then proceeds to write his essay, furnished to some extent at least with his own ideas on the subject. In this connection it may be observed how important it is with a view to encouraging originality to avoid hackneyed subjects so far as possible.

8. Exercises and essays (which should invariably be short) should be corrected by the teacher at home in the first instance. He will then be in a position to run through the essays rapidly in class, making the necessary corrections the subject for most valuable tutorial instruction, not for the benefit merely of the writer of each essay but of the class in general. In this way he should be able, in two successive tutorial periods, to correct the essays of all the 15 students (who, under Reg. 1, Chapter XXIV of the Regulations, form the maximum number in a tutorial group) with suitable comments. The two remaining tutorial periods in his subject in that month may be devoted to other forms of instruction, such as the removal of difficulties in a conversation class, or the correction of class exercises, or oral composition. This method will enable the teacher of any subject to call for a home exercise or essay once a month, without neglecting other sides of tutorial work, and without imposing too heavy a burden upon his students. If students are required to write more than one essay upon each subject of their course in a month, they cannot do more than superficial work, which will be of very little value to them.

9. In order to maintain continuous effort on the part of students all exercises, both written and oral, should be marked; and a record should be kept of the marks.

10. In one college a tutor makes his junior students read aloud to him from one of the books prescribed for supplementary rapid reading, and tests how far they understand what they have read. As an occasional exercise this is useful, but it should not be allowed to figure too largely in the work of the tutorial classes.

11. One tutorial period a month may be devoted by the tutor to finding out what students have difficulty in following the lectures, and endeavouring to remove these difficulties.

12. In one college a useful plan in connection with the small library kept in the Economics Seminar is followed. Two student members of the fourth year class have charge of the Seminar library, which is open from 12-45 to 2-45, and an issue book is kept in which every student, making use of the library, enters his name and the work or works consulted. To add still further to the usefulness of the Seminar library, the tutor has obtained particulars showing when each student belonging to his Economics class has leisure during the period when the library is open; and he proposes to require attendance on the part of every student twice a week in the library.

13. The following method is used by one tutor for junior students, and so long as it is not used too frequently, may be useful. The first twenty minutes are set apart for the students to answer a question which was set in the previous week, and which they were permitted to prepare at home. The answer-papers are taken home by the tutor and corrected and valued, and are returned at the following meeting, when they are discussed with the class. Each student has two exercise books.

14. In one or two cases it was found that the tutorial classes had been utilized by the teacher to set questions taken from University Calendars, and to dictate model answers. It is obvious that this is not tutorial instruction in any proper sense at all, and cannot be too strongly condemned. The

dictation of model answers, and skeleton essays can only induce atrophy of the students' faculties instead of stimulating them. A tutor in one of the colleges complained that in spite of his efforts to interest his tutorial class the majority of the students had not been appreciably responsive, still believing in the infallibility of dictated questions and answers, and dictated notes. The undeniable pressure of students in this direction should be firmly resisted.

15. In some instances there is a tendency for the tutorial period to become little more than an examination period, in which case its value is almost entirely lost.

16. The work of a tutorial class should possess a character of its own. In too many cases it was found that, instead of fresh ground being broken in the tutorial class, the work of the general class was simply gone over again, or supplementary lectures were given.

17. In one college a tutor, in order to interest the whole of his class, puts oral questions to the whole group, requiring every student to answer orally in turn and the other members of the class to correct him, the tutor only coming forward to help when he thinks this necessary. Another follows much the same method. He calls upon his students, in turn, to attempt an explanation of a passage, and finally follows with remarks of his own. This method he considers the most satisfactory as fixing the attention of the class as a whole and enabling him to find out those who require individual assistance. This method is adopted by another tutor in English for the purpose of practice in explaining "unseen" passages. He dictates a short passage, either Prose or Verse, and sees that the students have taken it down correctly. He allows them a few minutes to study the passage, and then calls upon them to construe it, one by one, and two or three lines at a time, orally in simple language. This method is useful for oral composition in class.

18. The following extract from a report by a Professor of History may be useful to other teachers of the subject. "Students of a group are asked to write an essay at home. Care is taken to see that the question is not such as can be answered by a mere description, or narration of events picked up from Bazar notes or the ordinary text-book, but is so worded that it involves a reasonable amount of discussion and critical appreciation..... The essay of one student is read aloud in the class; and errors of composition, style, arrangement and matter, are pointed out with the active help and co-operation of the other students. Long essays are discouraged, and no credit is given if the language and ideas of the prescribed text-book are merely reproduced... The uncorrected copies are taken by me, and corrected at home. If the subject is important the discussion is continued on the next occasion... My impressions of each student are recorded in a private note-book."

19. In the small Economics classes in one college it has been found possible to introduce the tutorial method in the manner followed in English Universities. Each student is taken separately for half an hour every week, or two students are taken together for an hour. The basis of the work done with each student is, either an essay written by him at home, or answers to two or three questions written by him at a general meeting of the class on important aspects of the subject which he is studying.

20. The following is an extract from the report of a Sub-Committee of the Syndicate adopted by the Syndicate at its meeting of September 25, 1918. It is reproduced here as summarising the views expressed above. "As regards Arts subjects... tutorial instruction should be based mainly upon the written work of the members of the tutorial group. Written work should mainly be done at home. It will be advantageous if the tutor reads over and values the students' written work at home, and after doing so comments on it at a subsequent meeting or meetings of the tutorial group. As a general rule, students should not be required to show up written work in any one subject more than once a month. Students should also be afforded opportunities of asking questions during the tutorial hour in order to remove their difficulties. From time to time the tutorial hour or part of it may be devoted to exercises, which however should not be in the nature of formal examinations."

ANNEXURE I.

SUPPLEMENTARY NOTE B.

SUPPLEMENTAL NOTE ON THE TUTORIAL SYSTEM.

In Chapter XXIV, 1(i) of the University Regulations there appears to be an attempt to introduce the system of tutorial instruction in vogue in some English and Scotch Universities. Whether, under the very different conditions that prevail in India, this attempt will be successful remains to be seen.

Based upon impressions formed during the inspection of the colleges of this University the following remarks are made:—

- (1) In British Universities tutorial instruction is not given by professors but by tutors, whose classes are very small, two or three students forming the class.
- (2) In this University tutorial instruction is to be given by professors and lecturers.
- (3) In British Universities usually tutorial fees have to be paid.
- (4) In this University no extra charge is made for tutorial instruction.
- (5) Unless a number of tutors are engaged by the colleges of this University, tutorial instruction can only be given by professors and lecturers at the cost of reducing the number of lectures given to each class.

Before the introduction of the tutorial system it was difficult for a professor during the two academic years to cover the whole course. The reduction of lectures will make it impossible to do more than cover at most three-quarters of the course, even in a hasty way. The result will be that students will get instruction only in part of the prescribed courses. It is exceedingly doubtful whether the average student is capable of making up so much of the course unaided.

A student who has been helped to prepare part of his course well, and has a sketchy idea of the remaining part, may pass his examination. But his success will give him the impression that thoroughness and completeness are not essential to success in life. This will be disastrously demoralizing.

- (6) If the system of tutorial instruction prescribed by the Regulations is to be insisted upon and carried out efficiently a material increase in staff in each college and class-room accommodation in most colleges will be required. No college with present resources can endure such an additional financial burden.

The increased expenditure may be met

- (i) by considerably increasing the fees of the students,
- (ii) from private benefactions,
- (iii) by considerably increased Government aid.

Any suggestion of raising tuition fees will be most unpopular. As public opinion is the predominating factor in University development, this source may be neglected.

There are but very few private individuals in this province who have betrayed any readiness to endow University education. This source may therefore also be ruled out.

There remains Government aid. Vast sums have been already spent and are to be spent in the future by Government on University education. It is the opinion of many that this expenditure is excessive and to the detriment of more important developments in the Province in other directions. It is therefore, if not impossible, at least undesirable to look to Government for further aid to any appreciable extent.

PROPOSALS.

Tutorial instruction may be confined to English and the Vernaculars or, *Preferably*, all the prescribed courses should be shortened and the *standard of examinations raised*.

Two further remarks may be made.

If an attempt be made to cover, or nearly cover, the whole of the prescribed courses in lectures and to give tutorial instruction according to the Regulations, the student will be overwhelmed with attendance on classes;

It is a mistake to aim at making a prescribed course complete in itself. The aim of University education is to give a sound introduction to the study of a subject and so to stimulate interest in it as to encourage the student to further study thereof after he has finished his University career. It is unfortunately true that only a very small proportion of graduates continue to take any interest in the studies which they undertook for their degree.

J. C. FORRESTER.

ANNEXURE II.

SUPPLEMENTARY NOTE B.

A NOTE ON THE TUTORIAL WORK IN THE PATNA UNIVERSITY.

I have had an opportunity of studying the tutorial work which is done in our colleges and would like to make the following observations about it:—

1. Teaching work in most of our colleges used to consist, almost wholly, of lectures delivered to classes, the sizes of which were determined by the annual admissions. In some cases they would be hardly half a dozen strong, in others, as large as 150, this being the maximum allowed by the Calcutta University. Attempts have been made of late to introduce some sort of help classes in which it is sought to remove individual difficulties and also to test the progress of each student in a class.

2. The lecture work as is done at present in our colleges is really of the tutorial type, never rising in efficiency, or in dignity, to the type of what may be styled Professorial lectures. The lectures are far too numerous to be genuine lectures, and the work required to be done by lecturers, much too heavy to be really efficient and useful. No Professor even gets an opportunity of preparing his work thoroughly so that it always lacks originality and has a tendency to degenerate into a dreary routine. Under the present conditions, the lectures cannot be anything more than summaries or analyses of text-books. In most cases, the work practically consists only of readings from books recommended by the University. It is necessary, therefore, that the number of lectures delivered should be reduced in order to enable lecturers to prepare better for their work, and to allow students sufficient time to prepare for following these lectures. Under our Regulations the minimum demanded in a subject is three in a week. In places where the work is done under more favourable conditions, as in the British Universities, this is the maximum. The necessity of having to impart instruction through the medium of a difficult foreign tongue, the imposition of lengthy curricula, the absence of a sufficiently high ideal of the Professor's work, and the heavy demand which the ordinary routine work makes upon his time, are all responsible for this state of things. Mr. Sharp has expressed a similar opinion in his Seventh Quinquennial Review of the Progress of Education in India: "It is sometimes urged against Professors in Indian colleges that they are academically undistinguished and produce no original work. * * * Nor, even were it true that no original work is produced, would this be a cause for surprise, when the burden of instructional work, let alone other activities in the college, makes so great a demand upon the time of the staff incommensurate to the number it is expected to teach. ["Seventh Quinquennial Report, Vol. I, p. 79.]

3. The "tutorial" classes which are being organized in our colleges form a most important part of the teaching work done in them. The regulations require that one hour's tutorial in each subject, per week, must be arranged for every student, and that if taken in batches, the size must not exceed 15. This constitutes such a large demand on the pecuniary resources

of a college that in most cases it has been found impossible to comply fully with the Regulations. The introduction of the scheme, though it is far from being ambitious, means a considerable increase of staff and of accommodation, which is much beyond the means of any institutions, except such as are maintained by the State. The tutorial classes vary in efficiency in accordance with their sizes, and the ideal which the teacher places before himself about his work. When students are taken individually, as in Economics in the Patna College, the efficiency reaches its maximum, but as the size of the classes approaches the full number, they become less useful. If a period of 45 minutes be given to a class of 15, it is impossible to complete the work within the period, as some time must be given to students for their work and the rest for allowing the teacher to attend to their individual requirements. Even if students bring their work from home, the lecturer can by no means do full justice to a whole class in 45 minutes. It may be said from the teacher's point of view that if the repetition of a lecture to a number of sections is dreary work and has a deadening effect, the repetition of what is practically the same instruction in six or eight tutorial sections must be still more dreary and deadening. Professors have complained to me that the tutorials have imposed upon them a heavy burden and that they have little free time to spare for private study. It is also possible for the tutorials to be a crushing burden to students, if, for example, they are required to bring essays in the same week in all the compulsory subjects. Moreover, a distinction should be made between the tutorials for I.A. classes and those for B.A. classes. The work is different in kind and requires separate treatment. These are some of the problems which colleges must solve for themselves, and devise as best as they can to minimise the evils which may arise from an injudicious application of the Regulations. It has been, in some cases, found possible to make the work easier and more useful by requiring students to meet as a whole class for an exercise or do it individually at home, the Professors reading the essays, etc., at home, and pointing out and removing the difficulties of students in the tutorial class. In no case should a student be required to write more than one essay or sit for more than one exercise in a subject, in a week, in the junior classes, and not more than two in the senior. Tutorial instruction is of very great value, but it must be organized with great care, so that it may not impose upon the student or the teacher an unnecessary burden. In order to carry out the scheme effectively, a great increase of expenditure will be necessary, which will be possible only if Government comes forward to give generous pecuniary help to the colleges. Time should also be allowed to the colleges to adapt themselves gradually to the new conditions.

D. N. SEN,
15-2-19.

VIII.

REPORT

ON

PATNA TRAINING COLLEGE

FOR 1918-19.

(The College was inspected on behalf of the University on March 28th, 1919, by Mr. G. E. Fawcus, Director of Public Instruction, Bihar and Orissa, and Mr. V. H. Jackson, Principal of Patna College.)

1. The Patna Training College was opened in October 1908 for the purpose of training teachers for the L.T. Diploma. It was affiliated up to the B.T. standard by Calcutta University in June 1916.

ADMINISTRATION.

2. The Governing Body of the College is regularly constituted and consists of the following *ex-officio* members :—

- (1) The Principal, Patna Training College, *Secretary*.
- (2) The Inspector of Schools, Patna Division.
- (3) The Headmaster, Patna Collegiate School.

The senior officer present acts as President. There were five meetings of the Governing Body during the session 1917-18, and two during 1918-19.

3. The College Council is composed of the members of the staff, and meets once a week to discuss matters concerned with the work of the staff and the students. There were 16 meetings during the session 1917-18, and 21 during 1918-19.

4. The clerical staff consists of a head clerk and cashier on a salary of Rs. 35—1—45 per mensem, and a second clerk on Rs. 25—1—35 per mensem who is also the librarian.

5. The following registers and books are kept :—

- (1) Proceedings of the Governing Body.
- (2) Proceedings of the College Council.
- (3) Admission and Attendance Registers.
- (4) (a) Abstract Cash Book.
(b) Contract Contingent Register.
(c) Regular Contingent Register.
(d) Acquittance Roll.
- (5) Mark Registers.

There is no Conduct Register, no occasion having yet arisen for the use of one. The accounts are checked by the Principal and are audited by the Accounts Clerk of the Inspector of Schools, Patna Division, who is a member of the Governing Body. The comparatively small number of students, and the fact that no fees are charged either in the College or the hostel, renders the keeping of accounts a much simpler matter than in Arts Colleges. In the Contract Contingent Register no entries are made to show the number of each bill and its date. The Abstract Cash Book is of little use by itself; to check any item reference has to be made to one of the subsidiary registers.

FINANCE.

6. Particulars regarding the finances of the College are given in Appendix I.

BUILDINGS.

7. Particulars of the rooms in the Training College are given below :—

Ground Floor.

(1) Professors' Room	..	..	..	12' × 18'
(2) " "	..	..	..	12' × 18'
(3) Lecture Room	..	..	..	24' × 18'
(4) Library and Reading Room	..	..	..	24' × 30'
(5) Common Room	..	..	..	24' × 18'
(6) Professors' Room	..	..	..	12' × 18'
(7) Vice-Principal's Room	..	..	..	12' × 18'

First Floor.

(1) Lecture Room	..	..	..	25'-8" × 18'-2½"
(2) Science Room	..	..	..	24'-5" × 18'-2½"
(3) Art Room and Museum	..	..	..	24'-5" × 30'-2½"
(4) Office	..	..	..	24'-5" × 18'-2½"
(5) Principal's Room	..	..	..	25'-8" × 18'-2½"

NOTE.—(a) There are also four small rooms, two on the upper story 10'-2½" × 8'-2½", a store-room and lavatory, respectively, and two lavatory rooms 10' × 8' on the lower story.

(b) There is a verandah, 10' wide, along the whole of the south front with its projection.

(c) In the Patna Collegiate School there is a special class-room measuring 23'-6" × 35' for Demonstration and Criticism Lessons to the students of the Training College.

The window sills in the College building are too low: though low sills are good for ventilation they admit a good deal of glare and allow of attention being distracted by passers-by. The College compound has lately been much improved by the demolition of the old Pirbahor *thana*, the replacement of the wire fence by a wall, and repairs to the various temples which adjoin it. The Municipality have been given a strip of land in front of the College which they propose to use in due course for widening the road: this is at present used as an ekka stand and a rubbish heap. Their attention should be drawn to the state of this land and of the drain between the College and the Collegiate School, which is very dirty.

LIBRARY.

8. The Library now contains 2,185 volumes. Standard works of reference are kept in open shelves in the reading room. The library is open daily for students to take out and return books. The number of books taken out by students since July last is 385. It would be a great improvement if the miscellaneous almirahs now in use were replaced by book cases specially made to fit the room. There is only one such book case now. The same remark applies to the room in which the Psychological apparatus is kept, and that apparatus might be kept in a better condition.

TEACHING STAFF.

9. Particulars as to the qualifications, period of service and present pay of the members of the teaching staff will be found in Appendix II. There has been no change in the staff during the current session. The committee of Inspectors wish to emphasize the importance of selecting for the staff of a Training College men really qualified for their work; men who both in intellectual ability and in width of outlook are notably above their students and who have experience of school work and educational methods extending beyond the province itself. In this connection the committee attach special

importance to a training abroad and recommend that Government should be asked by the Syndicate to give assistance (not necessarily the whole cost) to promising candidates willing to undergo such training for, say, two years.

COLLEGE CURRICULUM.

10. The courses of studies for the B. Ed. and L.T. Examinations are defined in Chapters XXVII and XXVIII of the Patna University Regulations and are strictly followed. It would be well if the Principal were himself to undertake the lectures in the History of Education, Educational Classics, Principles of Education or School Administration. The present distribution of work is shown in Appendix III.

PRACTICAL TEACHING.

11. The scheme of work for training the students in practical teaching begins with a course of demonstration lessons, followed by a number of criticism lessons, and completed by a series of practice teaching lessons.

12. During the current year the scheme makes provision for each student to attend twenty demonstration lessons, to attend forty criticism lessons of which he gives two, and to give twenty-five practice teaching lessons. It seems doubtful whether the number of the latter is adequate: these lessons are probably the most valuable part of the course. The practical work is now carried on in the Patna Collegiate School and the Ram Mohan Roy Seminary; in the former eight classes are available and in the latter six. That this number is not adequate is indicated by the fact that in order to enable the work to be got through some of the classes in the Collegiate School have specially to be divided into sections for the purpose. The possibility of using other schools for practising purposes should therefore be considered.

13. The B. Ed. and L.T. classes are treated as independent units in the matter of practical work.

14. A demonstration lesson covers two periods. In the first period a member of the College staff gives a lesson, and in the second period the method of dealing with the lesson is explained and discussed. The students are required to keep a record of each demonstration lesson which is afterwards read and initialled by one of the professors.

15. A criticism lesson also covers two periods. In the first period a student gives a lesson which is discussed and criticised in the second period. At least one day before the lesson is given, cyclostyled copies of the notes of the student giving the lesson are distributed amongst the other students so as to give them ample time to study the lesson beforehand. Each student is required to keep a record of each criticism lesson which is looked over and initialled by one of the professors. Welton's criticism lesson forms are used for this purpose.

16. The practice teaching lessons are as far as possible consecutive in order and adhere as closely as possible to the ordinary regular work of the school. No student is allowed to give a lesson unless notes of the lesson have been written beforehand. These notes are looked over and the teaching criticised by one of the professors, and any observations which the professor considers fitting are recorded in the student's note book.

EXPERIMENTAL PSYCHOLOGY.

17. The following experiments have been performed during the current session:—

- (1) Localisation of touch-spots and unequal distribution of touch papillæ on the skin.
- (2) Finding out heat and cold spots on the skin.

- (3) Testing the power of smell and cases of colour blindness.
- (4) Testing the power of hearing and localisation of sounds.
- (5) Testing fatigue, mental and bodily.
- (6) Apperception tests.
- (7) Memory tests.
- (8) Testing concentration of attention.
- (9) Testing control of attention.
- (10) Testing division and attraction of attention.
- (11) Testing the value of a map.

TUTORIAL WORK.

18. The tutorial work in the Patna Training College falls into two parts. One part of the work is based on essays written at home and the other on exercises done in class.

19. The scheme of work for this year includes the writing of fifteen essays. All essays are looked over by one or other of the members of the staff. The time-table allows for two periods during each week in which all the five members of the regular instructional staff are engaged in this work. On an average each student receives fifteen minutes individual attention each week in this connection. This does not mean that no other students are present when a particular student's essay is being overlooked. The 40 students are divided into five batches of eight each and all the eight of one batch may be present during the whole of the time assigned to tutorial work. In this way all the members of a batch may get the benefit of discussions arising from the difficulties and mistakes noticed in an essay. Students are encouraged to ask questions and to state their difficulties. It sometimes happens owing to prolonged discussions that all the essays cannot be looked over in the periods allocated to this work. In this case the member of the staff concerned looks over the essay at home and writes any comment which he considers appropriate. For the exercises done in class two continuous periods fortnightly are allowed. These exercises are marked and valued at home by the members of the staff and are then returned to the students. Four professors devote one period each week in each class to the tutorial work done in this connection. During this period students are given every opportunity of asking questions and of stating their difficulties. They can also find out why their exercises have been given a certain definite value. It is usual to let the students know a week ahead on what portion of the syllabus the exercises will be given, but questions are occasionally set which do not bear on that particular portion.

NUMERICAL STRENGTH.

20. Forty students joined the College in July last, 20 in each class. There are now 39 on the rolls, one student having died of influenza in October. Nineteen are in the B. Ed. and 20 in the L.T. class.

RESULTS IN UNIVERSITY EXAMINATIONS.

21. A full analysis of the results of the B.T. and L.T. Examinations held in 1917 and 1918 is given in Appendix IV.

COLLEGIATE LIFE.

22. The residence of all the students in the College hostel is favourable to the development of collegiate life. There are debates on every Saturday attended by one or more of the professors.

23. Arrangements have been made for Tennis, Badminton, Hockey and Football, and all the students take part in one or other of these games regularly. The arrangements for games are managed by a committee of the students and supervised by two professors.

RESIDENCE OF STUDENTS.

24. The residential part of the College has arrangements for 40 boarders, the rooms being all single-seated, well-lighted and well-ventilated. The room for the prefect is more spacious, being almost equal to two of the single-seated rooms. There is also a Common Room. The sanitary arrangements are adequate. The messing arrangements are made by the boarders themselves. The hostel is visited by the Assistant Surgeon in medical charge of the educational hostels in Bankipore. The management of the hostel is in the hands of a prefect under the general superintendence of the Principal. Regulation 28 of Chapter XXIII of the Patna University Regulations permits a relaxation of the ordinary rules for the management of hostels in the case of Training Colleges.

25. There is a plot of land behind the hostel which is not now being used. It would be a great convenience if quarters were erected on it for the three members of the staff who are in the Provincial Service. Quarters have already been built for the Principal and Vice-Principal.

APPENDICES.

APPENDIX I.

Abstract Statement of Income and Expenditure.

INCOME.			EXPENDITURE.			
1915-16.	1916-17.	1917-18.		1915-16.	1916-17.	1917-18.
				Rs.	Rs.	Rs.
<i>Nil.</i>	<i>Nil.</i>	<i>Nil.</i>	Teaching Staff ..	38,304	27,208	27,141
			Clerical ..	608	792	699
			Menial ..	531	476	488
			Library ..	1,600	415	472
			Apparatus ..	5,389	440	1,374
			Miscellaneous ..	2,051	1,921	3,307

N.B.—In 1916-17 and 1917-18 the number of students was reduced to 20 with a view to economy.

APPENDIX II.

Qualifications, Length of Service, and Present Pay of the Members of the Teaching Staff.

Name.	Post.	Qualifications.	Length of Service at this College.	Present Pay.	Remarks.
1. Mr. J. H. Thickett ..	Principal ..	M.A. (Cantab) ..	10 years 6 months	Rs. 800	
2. Mr. B. K. Mitra ..	Vice-Principal ..	B.A., B.T. (Cal) ..	8 months ..	300	Officiating allowance in I.E.S., Rs. 100.
3. Mr. K. Singh ..	Professor ..	M.A. (Phil. Cl. II.) and B.T. (Cal) .	3 years 10 months	250	
4. Mr. H. L. Bhattacharji ..	„ ..	M.A. (Math. Cl. II.) and B.T. (Cal.)	2 years 10 months	200	
5. Mr. S. T. U. Ahmad ..	„ ..	B.A., L.T. (Cal.) ..	8 months ..	150	Officiating allowance in P.E.S., Rs. 50.

APPENDIX III.

(1) Weekly curriculum of theoretical and practical work from July 22nd to December 23rd, 1918.

Name.	Subject.	B. Ed.	L.T.
Principal	Oral English	1	1
	Practical	2	2
	Tutorial	2	..
		8	
Vice-Principal	History of Education	4	..
	Methods	1	2
	Tutorial	1+2	1
	Practical	2	2+0
	Debates	2	..
		17	
Mr. K. Singh	Principles of Education	3	..
	Methods	1	1+2
	Tutorial	1+2	1
	Practical	2	2
	Debates	2	..
		71	
Mr. H. L. Bhattacharji	School Administration	1	1
	Methods	2	2
	Tutorial	1+2	1
	Practical	2	2
	Debates .. ..	..	2
		16	
Mr. S. T. U. Ahmad	Classics .. ..	..	2
	Methods	1	1
	Tutorial	1	2+2
	Practical	2+0	2+0
	Debates .. ..	..	2
		15	

(2) From the beginning of January to the middle of February 1919, all members of the staff were engaged in supervising the practice-teaching work of the teachers under training. This work covered an average of 30 periods a week.

(3) Weekly curriculum of theoretical and practical work from February 17th to March 31st, 1919—

Name.	Subject.	B. Ed.	L.T.
Principal	Oral English	1	1
	Tutorial	2	..
		4	
Vice-Principal	History of Education	4	..
	Tutorial	1+2	1
	Methods	1	1
	Debates	2	..
		12	
Mr. K. Singh	Principles of Education	3	..
	Methods	1	1+2
	Tutorial	1+2	1
	Debates	2	..
		13	

Name.	Subject.	B.Ed	L.T.
Mr. H. L. Bhattacharji	School Administration	2	2
	Methods	1	1
	Tutorial	1	1+2
	Debates	..	2
		12	
Mr. S. T. U. Ahmad	Classics	..	4
	Tutorial	1	1+2
	Methods	1	1
	Debates	..	2
		12	

Dr. P. C. Roy gave 15 lectures on Hygiene to the B. Ed. and L.T. classes taken together and Babu Bijoy Gopal Banerjee 25 lectures on black-board work to each of the classes.

APPENDIX IV.

Results in University Examinations, 1917 and 1918.

	SUBJECT.						Results as a whole.
	Theory and Practice of Teaching in relation to Mental and Moral Science.	Methods of Teaching specific subjects and School Management.	History of Educational Ideas.	Science Educational Classics.	Selected Course in Modern English.	Practical Teaching.	

B.T. EXAMINATION, 1917.

No. appeared ..	9	9	9	9	..	9	No. in class ..	9
No. who passed ..	9	8	8	7	..	8	No. sent up ..	9
Percentage of passes ..	100	88·8	88·8	77·7	..	88·8	No. who appeared ..	9
No. who failed in this subject only.	..	1	1	2	..	1	No. who passed ..	6
							Percentage of passes on no. who appeared ..	66·6

B.T. EXAMINATION, 1918.

No. appeared ..	12	12	12	12	..	12	No. in class ..	11
No. who passed ..	11	12	11	11	..	11	No. sent up (a) ..	12
Percentage of passes ..	91·6	100	91·6	91·6	..	91·6	No. appeared ..	12
No. who failed in this subject only.	1	..	1	1	..	1	No. who passed ..	11
							Percentage of passes on no. who appeared ..	91·6

L.T. EXAMINATION, 1917.

No. appeared ..	11	11	..	11	11	11	No. in class ..	9
No. who passed ..	11	11	..	11	11	10	No. sent up (b) ..	11
Percentage of passes ..	100	100	..	100	100	90·9	No. appeared ..	11
No. who failed in this subject only.	..	..	..	..	..	1	No. who passed ..	10
							Percentage of passes on no. who appeared ..	90·9

L.T. EXAMINATION, 1918.

No. appeared ..	9	9	..	9	9	9	No. in class ..	9
No. who passed ..	8	9	..	9	9	9	No. sent up ..	9
Percentage of passes ..	88·8	100	..	100	100	100	No. appeared ..	9
No. who failed in this subject only.	1	..	..	..	..	..	No. who passed ..	8
							Percentage of passes on no. who appeared ..	88·8

(a) One non-Collegiate.

(b) Two non-Collegiate.

IX.

PART I OF THE REPORT

ON

PATNA LAW COLLEGE

FOR THE YEAR 1918-19.

(The inspection was conducted on August the 8th, 1918, by the Hon'ble Mr. Justice Roe and the Hon'ble Justice Sir Syed Ali Imam).

1. We visited the Patna Law College this morning at 8-40 A.M., and heard a part of the lectures of Mr. Syeed Alum and Mr. Varma on Equity and the Transfer of Property. We were satisfied that the lectures were calculated to hold the attention of the students and sufficiently simple to be clearly understood by them.

2. We also inspected the hostels. They are clean and adequately furnished.

3. We entirely agree with the learned Principal that the accommodation is inadequate for the number of students now entering the College. The old Gymnasium could, with the aid of brick set in mud and plastered, be converted into an admirable lecture room at very small cost. This work would not affect the building permanently and should, in our opinion, be undertaken.

PART II OF THE REPORT

OF THE

UNIVERSITY INSPECTORS

ON

PATNA LAW COLLEGE.

The Patna Law College was last inspected on behalf of the University of Calcutta on the 13th October, 1914. There were then only 93 students on the rolls, but the Inspectors commented on the inadequacy of the accommodation for the first and third year classes. On the 15th June, 1916, the College was removed to the building formerly occupied by the Patna Training College and Training School. Two members of the Inspection Committee visited the College on behalf of Patna University on the 8th August, 1918. Their remarks have already been published. The third Inspector visited the College on November 14th and later dates. The present Report has been framed so as to give the information required by the University Regulations regarding the College in its present site, but, in cases where comparisons are useful, information has been added regarding the years immediately previous to the removal of the College to its new premises.

THE GOVERNING BODY.

1. The constitution of the Governing Body for the year 1918-19 is as follows:—

- | | |
|--|----------------------------------|
| (1) R. L. Ross, Esq., M A., I.C.S., District Judge of Patna. | } President, <i>ex officio</i> . |
| (2) The Principal, Patna Law College .. .. . |  | } Vice-President and Secretary, ex officio. |
| (3) Babu Debendra Nath Das, B.L., Government Pleader, Bankipore. | } Members. |
| (4) M. Muhammad Hossain, B.L., Vakil, Bankipore.. | |
| (5) Babu Shiveswar Dayal, M A., B.L., Law Lecturer, Patna Law College. | |

2. There are two changes in the members of the Governing Body since the year 1917-18; Maulvi Muhammad Hossain having been appointed in place of Rai Saheb Narayan Prasad, resigned, and Babu Shiveswar Dayal succeeding Mr. S. P. Varma, B.A., Bar.-at-Law, as the representative of the teaching staff.

The powers and duties of the Governing Body are the same as those of the Governing Bodies of other Government Colleges.

3. During the present session only one meeting of the Governing Body has been held up to the date of inspection on the 1st November, 1918. Since 1915-16 the number of meetings in each session has been as follows:—

1915-16	..	..	..	..	8
1916-17	..	..	..	..	7
1917-18	..	..	..	..	4
1918-19 to date..	..	..	..	..	1

NUMBERS.

4. The following table shows that after the last inspection, and even before the removal of the College to its present site, there was a remarkable increase in the number of students attending the College. This expansion

has continued, though at a slower rate, and judging by the number in the present First Year class, seems likely to proceed further. It has been accompanied by a decrease in the net cost to Government, which was over Rs. 21,000 in 1911-12 and 1912-13.

Number of Students on the Rolls on the 31st August.

			First year.	Secomd year.	Third year.	Total.	Net cost to Government.
							Rs.
1913	..	..	53	27	18	95	12,945
1914	..	..	39	35	21	95	11,655
1915	..	..	86	39	29	154	9,730
1916	..	..	100	79	52	231	7,457
1917	..	..	86	83	75	241	7,546
1918	..	..	122	70	81	273	....

THE TEACHING STAFF.

5. The necessary information regarding the members of the teaching staff is given in Appendix I. With the exception of the Principal, who is a whole-time officer subject to the ordinary rules of Government, the members of the teaching staff hold part-time appointments. They are appointed by Government on the recommendations of the Governing Body and the Director of Public Instruction. They must be, in accordance with the scheme accepted by the Government of Bengal when the Patna Law College was founded in 1919, practising Barristers or Vakils. It is therefore necessary that their classes must be held either before or after Court hours. Their teaching duties are limited, under the scheme above mentioned, to two periods of 45 minutes each daily. These are important factors in considering the working of the College, as they are quite different from those in other colleges of the University.

6. Any assistance which the Professors give to the Principal in general matters of College administration or students' welfare is entirely voluntary. They hold their appointments, which are outside the grades and presumably non-pensionable, subject to the approval of the Governing Body and Government. They are not entitled to privilege leave or any other leave except without pay under Article 339 of the Civil Service Regulations, and the usual ten days' casual leave during the year.

7. It will be seen from Appendix I that since the College moved to its present site two temporary posts on Rs. 150 a month have been created, one in 1916 and the second in 1917. These are liable to be abolished should the number of students fall below 110, but this seems hardly likely, considering that the present number is no less than 273. As matters stand, no restrictions are laid down regarding the admission of students to the Patna Law College. The difficulty regarding accommodation has so far been solved by duplication of classes as well as staff, and by holding both sections of the Preliminary class and one section of the Final Class in the afternoon from 4.30 to 6, instead of in the mornings as previously, from 8 to 9.30, but there is obviously a limit to this, and it appears that this limit, at any rate so far as the Preliminary Section is concerned, has nearly been reached.

BUILDINGS, ETC.

8. The College occupies a single-storied building, evidently one of the oldest in Bankipur, pleasantly situated on the river bank between the grounds of the Temple Medical School and the compound of the official residence of the District Judge of Patna. The three largest rooms in the middle of the building are used for the lectures. In the west wing two smaller rooms are

used as Students' Common Rooms, and a third as an office. On the east, the arrangement is similar ; the room corresponding to the office is used as a Principal's Office and Lecturers' room, and the other two rooms, together with an enclosed verandah, are used as a Library. The dimensions of the rooms are as follows :—

Class-room Final, both sections	..	..	30' × 15' = 450 sq. ft.
„ „ Int. Section A and Prel. Section B	..	..	30' × 20' = 600 sq. ft.
„ „ Int. Section B and Prel. Section A	..	..	30' × 15' = 450 sq. ft.
Library, 20 × 18½'	= 370 sq. ft.	..	} 850 sq. ft.
„ 15' × 18½'	= 277 sq. ft.	..	
„ 20' × 10¼'	= 205 sq. ft.	..	
Principal's Office	..	..	18½' × 15' = 277 sq. ft.
College Office	..	..	18½' × 15' = 277 sq. ft.
Common Room 20' × 18½'	= 370 sq. ft.	..	} 650 sq. ft.
„ „ 15' × 18½'	= 277 sq. ft.	..	

Though the class rooms occupy the centre of the building, they are well lighted from the roof. The largest class room can only be ventilated through the Common Room when lectures are being held, as it has no direct access to the open air. The floors are covered with matting, and with one exception the punkhas are in better condition than is usual in such institutions.

9. The students sit at separate desks, arranged in six rows of seven in each in the largest room, and in five rows of seven in each in the two smaller class-rooms, two passages down the room being left in each case. The maximum seating accommodation provided is therefore for 42, 35 and 35 students respectively. For such numbers as these the arrangement of seats is excellent, but in view of the pressure on the accommodation, which is steadily increasing and in all probability cannot be relieved for some years by the construction of a properly designed Law College, it seems worth while to consider whether it would not be better to adopt more economical arrangements. These, by abandoning the principle of separate desks for each student, might if properly designed increase the seating accommodation, by 25 to 40 per cent. At the present moment, for instance, this accommodation, which is very little larger than it was in the building previously used, is sufficient only for one section of the Final and both sections of the Intermediate Class. In the other section of the Final Class and in both sections of the Preliminary Class the students must, if there is a full attendance, either bring in stools and sit in the gangways or, as was actually noticed, adopt the still more unsatisfactory and uncomfortable method of sitting three or even four together in each group of two single desks.

10. There is a fairly large compound attached to the building on the south. If the tenure were intended to be permanent, it might have been worth while to consider the replacement of the garden, originally kept up for the Training School, by tennis courts. The sanitary arrangements resemble, and are probably as efficient as, those of other colleges in Bankipore.

RESIDENCE OF STAFF.

11. The Principal occupies a house in the College grounds, which is rent-free, in consideration of his acting as Superintendent of the College Hostel.

LIBRARY, ETC.

12. On the 31st May, 1918, the Library contained 2,482 volumes of Law Books. Sixty-two volumes were added in the year 1917-18, there being a fixed annual grant of Rs. 1,000 for the purpose. On the 31st May, 1914, the corresponding number was 2,155. The Library contains only books on Law. The annual grant is considered sufficient for the purpose, but the Principal considers that a grant of Rs. 3,000 is urgently required in order to obtain a complete set of English Reports. This was recommended by the University Inspectors in 1914.

13. Two hundred and thirty-eight volumes were issued to 136 students in 1917-18. This does not include books used by students living in the Hostel.

COURSES OF STUDY, ETC.

14. Lectures are delivered in all the subjects prescribed for the examinations in Law. The distribution of work amongst the lecturers during the present session, and the number of lecture periods per week in each subject, are shown in Appendix II. The routine is naturally arranged so that each lecturer gives the same number of lectures, twelve per week, and it does not substantially differ from that of previous years. There are 198 working days in the year, but lectures, moot courts and tutorial classes are not held on more than 125 of these days, on the average. The University and Pleadership Examinations, all of which are held during term time, account for about 30 more days, but the balance which is due to casual holidays, fee days, etc., appears to be rather larger than might be expected.

15. The effect of the regulations of Patna University on the teaching work done at the Law College requires careful consideration. Under Reg. 4, Ch. XV, the College is required to give an assurance that adequate tutorial arrangements will be made, as well as suitable provision for lectures; and under Reg. 13, Ch. XXIV, every student is required to write essays or exercises at regular intervals, which are to be corrected and valued by an authorized member of the staff. The special regulations contained in Reg. I, Ch. XXIV, regarding the amount of tutorial work weekly are not expressly applicable to Law students, who are however required under Reg. 2 (ii), Ch. XXXIX, to attend at least three-fourths of the full number of sittings of a moot court in each subject, except Jurisprudence and Roman Law at the Preliminary Examination.

16. The minimum number of sittings of the moot courts is not specified in the Patna University Regulations, but the actual number at present is 12 in each subject, as under Calcutta University in previous years. While these moot courts may undoubtedly be regarded as an excellent type of tutorial instruction, it seems doubtful whether they altogether meet the needs of students except those who are above the average. Provision has also been made for tutorial instruction in all classes, but the method adopted differs in a marked degree from the methods used in other colleges under the University. They are only held after the ordinary lecture courses have been completed, i.e. chiefly in the month of April. For this purpose the students are divided into groups of about 20 in the first and second years, and 14 or 15 in the third year; and they attend the College in rotation, the time-table being arranged so that the period of attendance required of students who do not ordinarily live in Patna is reduced to a minimum. The arrangements are shown below:—

Class.	Group.	NUMBER OF TUTORIAL CLASSES.			Period of Attendance.
		Jurisprudence.	Roman Law.	Hindu Law.	
Preliminary	I ..	4	2	7	April 3rd-26th.
	II ..	4	2	7	April 11th-29th.
	III ..	4	2	7	April 20th-May 1st.
	IV ..	4	2	7	April 29th-May 4th.

Class.	Group.	NUMBER OF TUTORIAL CLASSES.				Period of Attendance.
		Mohamadan Law.	Transfer.	Real Property.	Contracts.	
Intermediate	I ..	6	5	5	5	April 8th-20th.
	II ..	6	5	5	4	April 15th-25th.
	III ..	5	5	5	4	April 24th-30th.
	IV ..	5	5	5	4	April 30th-May 4th.

Class.	Group.	NUMBER OF TUTORIAL CLASSES.				Period of Attendance.
		Land Tenure.	Equity.	Evidence and Civil Procedure.	Criminal Law.	
Final	I ..	11	6	10	5	March 9th–April 20th.
	II ..	11	6	9	4	March 23rd–April 25th.
	III ..	10	6	9	4	April 11th–30th.
	IV ..	10	6	9	4	April 24th–May 4th.

These tutorial classes have been made compulsory so that the average attendance is unusually high, being in 1917, 74 out of 78 in Preliminary, 78 out of 81 in Intermediate, and 57 out of 62 in Final classes.

17. While there may perhaps be room for difference of opinion regarding the desirability of concentrating tutorial work at the end of the ordinary lecture courses, it is clear that the intention of Reg. 13 of Ch. XXIV of the Regulations is that the progress of each student should be tested at regular intervals throughout the session, and that no provision has as yet been made for this.

AVERAGE ATTENDANCE, ETC.

18. Owing to the system of tutorial classes just described, the actual number of students attending the College daily during April and May is comparatively small. For the months from July to March the average monthly roll number and daily attendance of students is as follows:—

Year.	Average Monthly Roll Number	Daily Attendance.	Percentage.
1916–17	218·5	159·7	73·1
1917–18	225·9	167·9	74·3

19. There is a marked tendency for the students to prolong the ordinary holidays observed by the College, as for instance, in October and December–January. It seems that most of them attend the bare minimum of 75 per cent. of the lectures delivered, and this allows them under ordinary circumstances an ample margin for such extensions of their holidays.

REGISTERS, DISCIPLINE, ETC.

20. All the ordinary office registers are kept well. The register for the results of periodical examinations and class exercises is at present used to record the results of the University Examinations. The Attendance Registers are kept locked up in the Principal's office when not required in the classes, but it does not seem to be clearly understood in all cases that the rolls should be called only at the commencement of each period.

Judging by the absence of any entries in the Conduct Register, the behaviour of the students is satisfactory. No serious case of breach of discipline occurred during the session 1917–18.

PHYSICAL EXERCISE, COLLEGIATE LIFE, ETC.

21. The only College club is the Athletic Club, of which Mr. S. P. Varma is the President. Football and hockey are played on one of the grounds, 120 yards long and 60 yards broad, reserved on the Maidan for the Law College. The annual subscription to the Athletic Club is one rupee from each student. Under present conditions, it seems impossible to maintain a satisfactory and general system of physical exercise in the Law College. Students who have been accustomed to play games regularly when in the Arts Colleges find that when they join the Law College they have to attend lectures during the only time of the day which is suitable for games. After getting out of the habit of taking regular exercise during their first year, it is naturally more difficult for them to resume it again later on.

22. The following periodicals were taken for the Common Room during 1917-18:--

Statesman.	Hindustan Review.
Beharee.	Strand.
Bharati.	Spectator.
Saraswati.	Review of Reviews.
Graphic.	Nineteenth Century and After.
Times of India Weekly.	Nash.
Indian Review.	East and West.

HOSTELS, ETC.

23. During the present year, 30 students live in the hostels in the College compound, paying Rs. 3-8 per month as seat rent. The situation is good and the locality is quiet and free from disturbance. The accommodation provided in each of the larger buildings used as hostels would be much improved by adding partitions about six feet in height between the divisions allotted to each of the students. Only one kitchen is provided for 20 or more Hindu students, and some disused godowns at the S.-W. corner of the hostel compound could easily be converted into an additional kitchen and store rooms. The desirability of providing facilities for tennis, etc., has already been mentioned.

In addition to the students in the College hostel, 43 others live in another hostel under the supervision of the Inspector of Students' Residence.

RESULTS OF EXAMINATIONS, FINANCE, ETC.

24. The usual statements of the results of examinations in the year 1917-18, and of receipts and expenditure for the last three years, are contained in Appendices III and IV. Plans showing the size and arrangement of the rooms in the College and Hostel are also attached.

GENERAL.

25. It is evident that the available resources of the College are severely strained in the attempt to provide proper teaching facilities for the large number of students now attending the College. Before long, a new building will have to be provided, and it may be suggested that the opportunity should be taken to reconsider the principles on which the work of the College is carried on. At present almost everything connected with the work is on a part-time basis, and is arranged to facilitate the study of Law amongst the graduates of the University. Except in the first year, the students can, with the permission of the Governing Body, undertake remunerative work for not more than three hours daily, and a considerable proportion takes advantage of this privilege. Others attend the existing M.A. classes in History or Economics. The Law course by itself could, it appears, be easily completed with two years' study.

26. It seems open to question whether the present arrangements will prove equally convenient in future. The duplication of classes, involving as it does a system of evening work, tends to check the full development of collegiate life. The reorganization of the M.A. and M.Sc. teaching will probably make it more difficult for students to combine these courses with the study of Law. These considerations, together with the immediate necessity for arranging regular tutorial work, suggest that it is desirable that the work of the College should conform more closely to the system in other colleges under the University, and that more whole-time teachers should be appointed on the staff.

V. H. JACKSON.

APPENDICES.

APPENDIX I.

Names and Qualifications of the Teaching Staff at the beginning of the Current Session (1917-18) with (i) Changes and (ii) Additions since the last inspection.

No.	Name.	Degrees with names of Universities, Classes, Honours, etc., with dates (with details as to previous teaching experience).	Present Post.	Date of appointment to Present Post.	Pay or Status.
1	2	3	4	5	6
1	Maulvi Syed Zainuddin.	B.A., B.L., Vakil; studied Muhammadan Law in original Arabic.	Principal	12th January, 1915.	Rs. 500
2	Babu Ragho Prasad.	B.A., with Honours in English; B.L., Vakil; acted as Teacher B.S.E., Bankipore.	Law Lecturer	18th July, 1911	200
3	Mr. S. P. Varma	B.A. (Cal.), 1906; Bar.-at-Law, 1910; some time Lecturer, B.B. College, Mozaffarpur.	Do. ..	1st July, 1912	200
4	Babu Shiveshwar Dayal.	M.A., B.L. (Cal.) ..	Do. ..	12th January, 1915.	200
5	Mr. Saiyed Sayeed Alum.*	B.A. (June 1910), with Honours in Natural Science Tripos from Cambridge University; LL.B. (June 1911), with Honours in Law Tripos from Cambridge University; called to the Bar, 1912; from 1912-13 student at "Wrens" for the Indian Civil Service Examination; got the Degree of M.A. from Cambridge University in 1914.	Do. ..	6th August, 1917.	200
6	Mr. Sri Narayan Sahay.	Honours in History from the St. John's College, Oxford; B.Sc.; called to the Bar of the Middle Temple in January 1915.	Addl.† Law-Lecturer.	30th October, 1916.	150
7	Mr. Ahmad Ali Khan.‡	B.A. (Cam.); Bar.-at-Law	Do. ..	6th August, 1917.	150

* Appointed in place of Dr. S. A. Ghani, Law-Lecturer, Patna Law College (deceased), with effect from the 6th of August, 1917, under D. P. I.'s Office Memo. No. ⁹³⁰⁶IL/157-16, dated 16th August, 1917.

† Sanctioned temporarily under Govt. of B. and O. letter No. 1203E, dated 15th August, 1916.

‡ Appointed in place of Saiyed Sayeed Alum, Addl. Law-Lecturer, Patna Law College (promoted), with effect from 6th August, 1917, under D. P. I.'s Office Memo. No. ⁹³⁰⁶IL/157-16, dated 16th August, 1917.

APPENDIX II.

The Teaching Staff in each Subject and the amount of Work done per week by each Member of the Staff in each Subject and to each Class during the year 1916.

Serial No.	Teacher's Name and Designation	Class and Section.	Subject.	NUMBER OF PERIODS PER WEEK.			
				July to December, 1917.			
				Lectures, period 45 minutes.	Tutorial work, period 45 minutes.	Practical work, period 45 minutes.	Total.
1	2	3	4	5	6	7	8
1	Maulvi Syed Zainuddin, B.L, Principal.	Second year B.L. Section A.	Muhammadan Law and Law of Persons.	3	..	Moot courts held under the University Regulations in each group of subjects (minimum 12) in the course of a year.	12
		Second year .. Section B.	Do.	3	..		
		Third year .. Section A.	Criminal Law	3	..		
		Third year .. Section B.	Do.	3	..		
2	Babu Ragho Prasad Law-Lecturer.	First year B.L... Section B.	Hindu Law	6	..		12
		Third year B.L... Section B.	Land Tenures	6	..		
3	Mr. S. P. Varma ..	Second year B.L. Section A.	Transfer	6	..		12
		Third year .. Section A.	Equity	3	..		
4	Babu Shiveshwar Dayal.	First year B.L... Section A.	Hindu Law	6	..		12
		Third year B.L... Section A.	Civil Procedure	6	..		
5	Mr. Saiyed Sayeed Alum.	Second year B.L. Section B.	Transfer	6	..		12
		Third year B.L... Section B.	Evidence	3	..		
6	Mr. Sri Narayan Sahay.	First year .. Section A.	Jurisprudence	3	..	12	
		Do. ..	Roman Law	3	..		
7	Mr. Ahmad Ali Khan	Second year .. Section A.	Real Property	3	..	12	
		Do. ..	Contract	3	..		
		First year .. Section B.	Jurisprudence	3	..		
		Do. ..	Roman Law	3	..		
		Second year .. Section B.	Real Property	3	..	12	
		Do. ..	Contract	3	..		

APPENDIX III.

B.L. Examination Results.

Name of Examination.	Number appeared.	NUMBER PASSED.		
		1st Dn.	2nd Dn.	Total.
August 1917, Preliminary Law ..	103(<i>a</i>)	4	64	68
„ „ Intermediate „ ..	39(<i>b</i>)	..	19	19
„ „ Final „ ..	33(<i>c</i>)	1	18	19
February 1918, Preliminary „ ..	55	3	33	36
„ „ Intermediate „ ..	56	3	34	37
„ „ Final „ ..	25(<i>d</i>)	1	13	14

(a) Includes four outsiders.*(c)* Includes two outsiders.*(b)* Includes four outsiders.*(d)* Includes one outsider.

APPENDIX IV.

Return of Finance.

RECEIPTS.

Year.	Opening balance.	From endowment.	From the funds of the management.	Fee income.	GOVERNMENT OR OTHER GRANT.		Other sources including subscriptions.	Total.
					For capital expenditure.	Recurring.		
1	2	3	4	5	6 (i)	6 (ii)	7	8
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1917-18	15,864 0 0	.....	7,545 15 9	.....	23,409 15 9
1916-17	14,454 0 0	.....	7,456 14 11	.....	21,910 14 11
1915-16	9,486 0 0	.....	9,729 10 5	.....	19,215 10 5

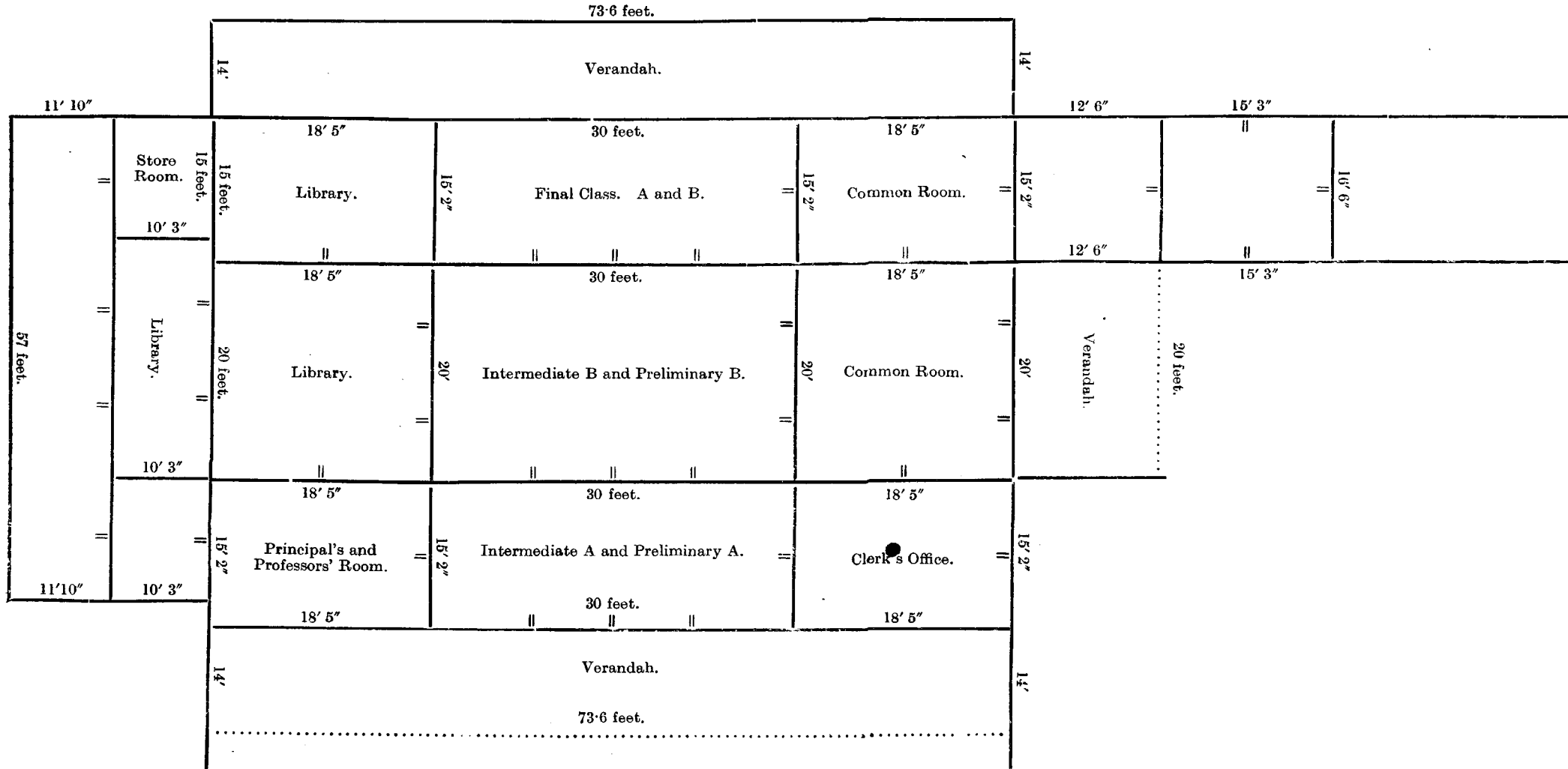
EXPENDITURE.

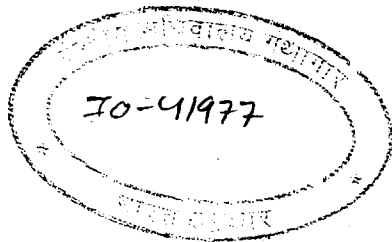
Year.	On Teaching Staff.	On Clerical Establish-ment.	On Menial Establish-ment.	On Furniture.	On Library.	Hostel Con-tingency.	Newspaper and Periodicals.	Common Room.	Rents and Taxes.	Contract Contin-gency.	Total.
9	10	11	12	13	14	15	16	17	18	19	20
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1917-18 ..	19,508 12 10	881 0 0	432 0 0	.....	1,000 0 0	194 0 0	50 0 0	200 0 0	400 10 0	743 8 11	23,409 15 9
1916-17 ..	17,462 2 2	748 0 0	496 0 0	697 2 0	1,000 0 0	49 6 0	50 0 0	200 0 0	460 3 9	748 1 0	21,910 14 11
1915-16 ..	15,600 0 0	557 0 0	(a) 450 4 7	166 8 0	999 13 0	48 7 0	50 0 0	200 0 0	483 0 0	660 9 10	(b) 19,215 10 5

(a) Includes grain compensation allowance.

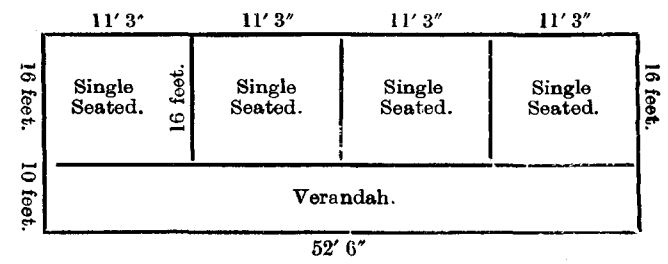
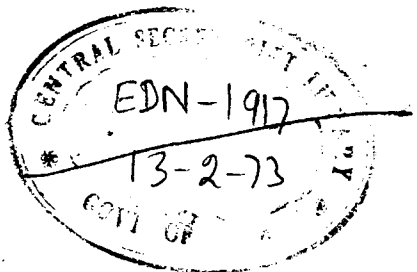
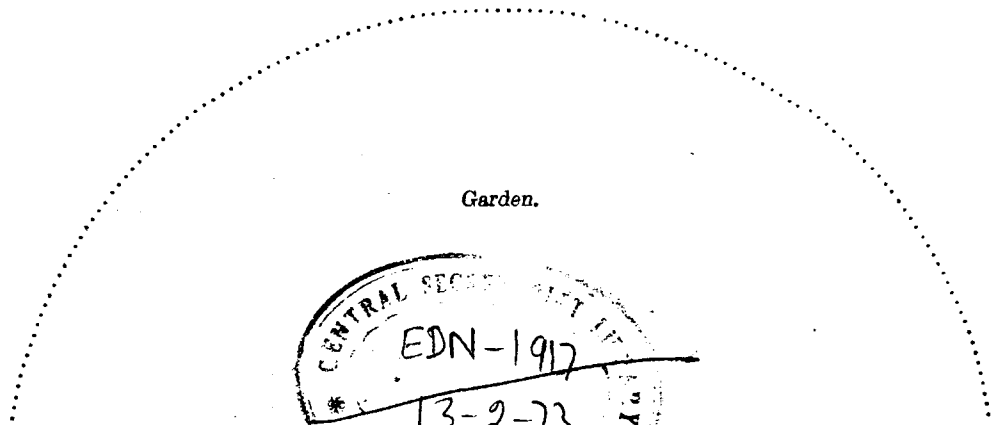
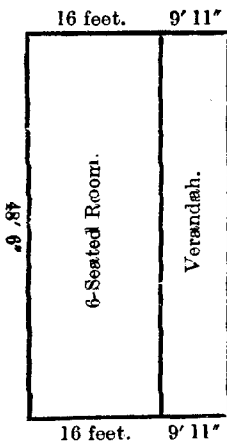
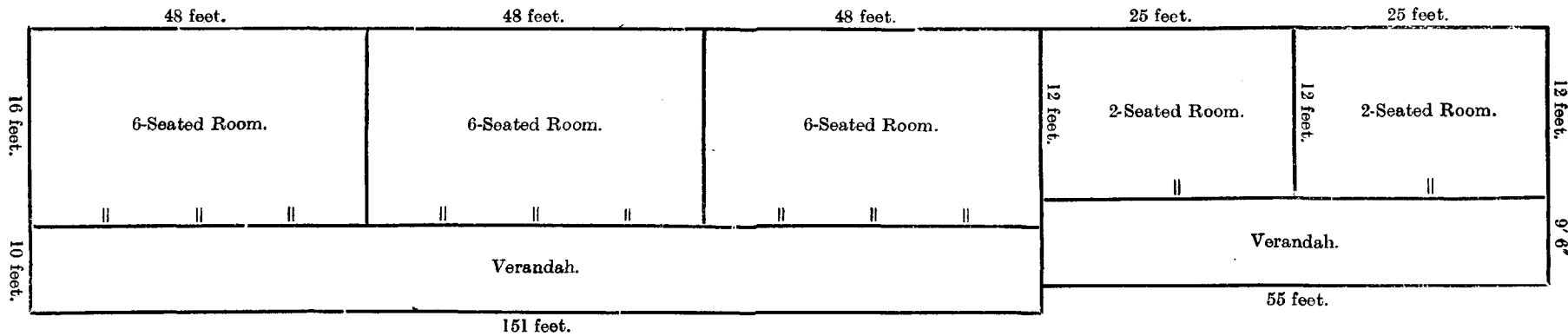
(b) Includes Rs. 7-15-6 for livery to orderly peon.

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