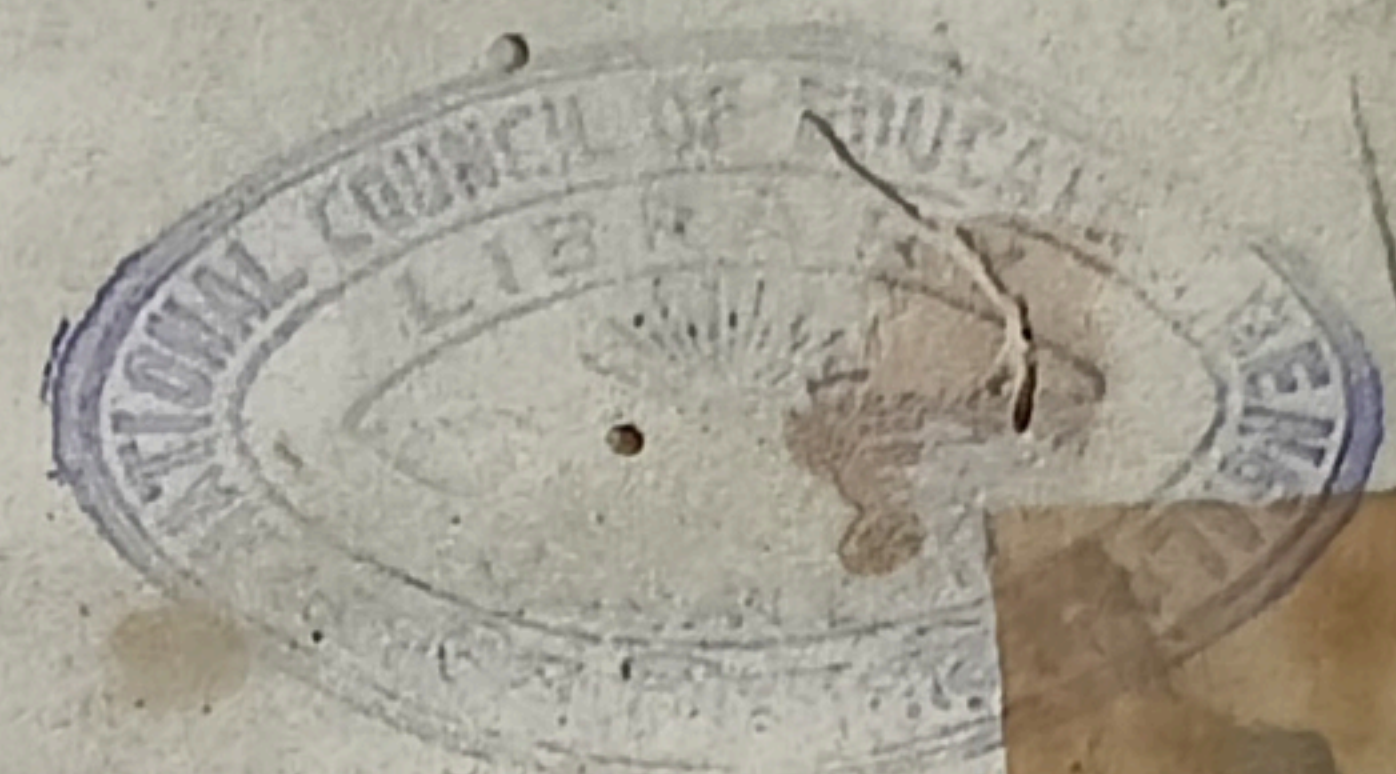




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REPORT
OF THE
NATIONAL COUNCIL OF EDUCATION, BENGAL,
1907.

The Executive Committee of the National Council of Education, Bengal, beg to submit a report of the work of the Council during the year 1907.

Members.

In the year under review five new members were elected to the Council namely Mr. I. C. Bose and Dr. Indu Madhav Mallick on the nomination of the Faculty of Science, Mr. A. C. Sen on the nomination of the Faculty of Arts and Mr. J. N. Roy and Babu Govinda Chandra Dey Roy as representatives of one of the foundation-donors, Maharaja Suryya Kanta Acharyya Bahadoor.

The Committee have to record with sorrow the death of three of their members, Maharaja Bahadoor Sir Jatindra Mohan Tagore, Babu Kali Charan Banurjee, and Mr. Ibrahim, Bar-at law.

In Maharaja Sir Jatindra Mohan Tagore, the council has lost one of its most valued members. Himself a scholar, he kept alive his interest in educational movements until the last day of his life and the Council always looked forward to him for support and direction in the work of national education.

Babu Kali Charan Banurjee would have proved a tower of strength to the Council, had his life been prolonged. His deep erudition and his varied experience in educational matters would have been of the greatest service to the Council. The country and the Council are much the poorer by his loss.

Mr. Ibrahim was a worthy representative of the Mahomedan community in the Council and the Committee recommend that early steps be taken by the election of another Mahomedan representative to fill the place left vacant by his death.

The Committee beg to place on record their sense of the great loss the Council has sustained by the death of these three members.

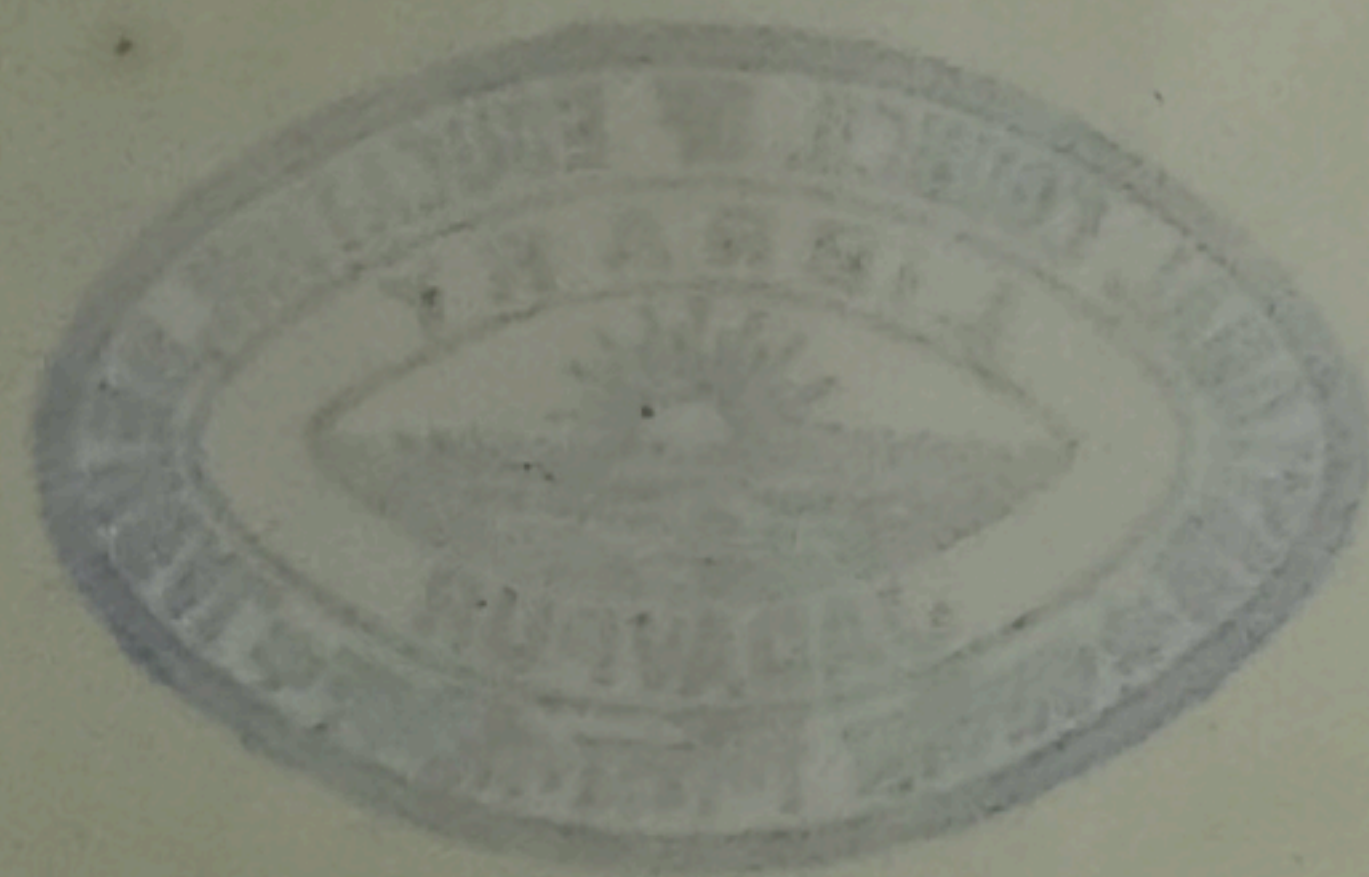
Meetings of the Council.

During the year the Council held two meetings. At the first meeting, which was held on the 20th January, 1907, the Faculties and Boards of Studies for the year 1907 were constituted, the office-bearers and the Executive Committee were appointed and the Budget for the year was passed. The grant had to be supplemented at the second meeting which was held on the 14th September, 1907. At this meeting 4 new schools were affiliated and a

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committee was appointed to draw up a scheme for religious education for Hindu boys, to be brought up before the Council for its approval.

The committee which consists of Sir Gooroo Das Banerjee, Pandit Panchanan Tarkaratna, Ray Yatindra Nath Chowdhury, Babu Manomohan Bhattacharjee, Babu Mohini Mohan Chatterjee, Babu Satis Chandra Mukherjee, and Babu Hirendra Nath Datta has not yet made its report. It will be remembered that the Memorandum of Association of the Council provides for denominational religious education out of funds specifically contributed for that purpose, such education not to include the enforcement of religious rites and practices and that one of the foundation-donors Babu Brojendra Kishore Ray Chowdhury set apart by his deed of endowment the annual sum of Rs. 2000 for providing religious education for Hindu boys. It was with the object of properly utilising this sum that the above committee was appointed.

Office-Bearers.

The following is a list of the office-bearers during 1907.

PRESIDENT.

Hon'ble Dr. Rashbehari Ghose, M.A., D.L., C.I.E.

VICE-PRESIDENTS.

Dr. P. K. Ray, D. Sc. (up to September 14).
Moulvi Muhammad Yusuf Khan Bahadur, B.L. (from September 15).
Mahamahopadhyaya Raj Krisna Tarkapanchanan.
Maharaja Suryyakanta Acharyya Chowdhury Bahadur of Mymensingh.
S. N. Tagore Esq., I.C.S. (retired),
Babu Brajendra Nath Seal, M.A.

VICE-PRESIDENT, EXECUTIVE COMMITTEE.

Dr. P. K. Ray, D. Sc. (up to September 14).
Moulvi Muhammad Yusuf Khan Bahadur, B.L. (from September 15).

TREASURER.

Ray Yatindra Nath Chowdhury, M.A., B.L.

SECRETARIES.

A. Chaudhuri Esq., M.A. (Cal.) B.A. (Cantab.) Bar-at-law.
Babu Hirendra Nath Datta, M.A., B.L.

TRUSTEES.

Maharaja Suryyakanta Acharyya Bahadur of Mymensingh.
Babu Brajendrakishore Roy Chowdhury.
Subodh Chandra Mallik.

AUDITORS.

I. C. Bose Esq., M.A.
Babu Gaurisankar Das, M.A., B.L.

ASSISTANT SECRETARY.

Srijukta Haran Chandra Chakladar, M.A.

Executive Committee.

The Executive Committee was composed of the following gentlemen:—

1. Hon'ble Dr. Rashbehari Ghose, M.A., D.L., C.I.E.
2. Dr. P. K. Ray, D. Sc. (up to September 14).
Moulvi Muhammad Yusuf Khan Bahadur, B.L., (from September 15).
3. Ray Yatindra Nath Chowdhury, M.A., B.L.
4. A. Chaudhuri Esq., M.A. (Cal.), B.A., (Cantab.), Bar-at-law.
5. Babu Hirendra Nath Datta, M.A., B.L.
6. Sir Gooroo Das Banerjee Kt., M.A., D.L.
7. B. Chakravarti Esq., M.A., Bar-at-Law.
8. A. Rasul Esq., M.A., B.C.L. (Oxon.), Bar-at-law.
9. Hon'ble Babu Deva Prasad Sarvadhicary, M.A., B.L.
10. Dr. Hem Chandra Sen, M.D.
11. Dr. S. B. Mitter, M.B., B. Sc. (Lond.)
12. J. N. Roy, Esq., Bar-at-Law.
13. Babu Gobinda Chandra De Roy, M.A. B.L.
14. „ Ramendra Sundar Trivedi, M.A.
15. Aravinda Ghose Esq., B.A. (Cantab.)
16. Babu Manomohan Bhattacharyya, M.A.
17. „ Satis Chandra Mukerji, M.A., B.L.

The Committee met 21 times and transacted various items of business. Dr. P. K. Ray, D. Sc. having resigned his office as Vice-President owing to pressure of official work, Moulvi Muhammad Yusuf Khan Bahadur B.L., was on the 14th September elected a Vice-President of the Council and the Vice-President of the Executive Committee and he filled the office during the rest of the year.

Extension Lectures.

During the year Babu Rabindra Nath Tagore, the Director of Bengali studies, delivered a series of lectures in Bengali on the subject of *Comparative Literature* alternately with Babu Mohini Mohan Chatterjee, B.L. who delivered a series of lectures in English on the *Study of Bengali Literature*.

Both series of lectures were well attended and received warm appreciation. The courses are not yet complete and both lecturers will continue their series in the current year. Mr. R. C. Bonnerjee, Bar-at-law, has undertaken to deliver a course of lectures on English Literature and the Committee hope to arrange for this course being opened on an early date. Rai Sarat Chandra Das Bahadur, C.I.E., also delivered a lecture embodying a portion of his original researches into Indian and Chinese History. This lecture was well received and is expected to be followed by other lectures by Rai Sarat Chandra Das Bahadur.

Affiliated Institutions.

The following national schools were affiliated to the council during the year up to the Fifth Standard—*viz.* Khulna, Magura (Jessore), and Majpara (Dacca), and a school at Barabasalia (Mymensingh) was affiliated up to the Primary standard.

These added to the national schools at Rangpur and Dacca (which are affiliated up to the Seventh Standard) and those at Dinajpur, Comilla, Mymensing, Kishoregunge, and Chandpur (all of which are affiliated up to the Fifth Standard) make the total number of affiliated Institutions to be 11 on the 31st December, 1907. Since then the national schools at the following places *viz.* Noakhali, Jessore, Sylhet, Jalpaiguri, Kamargram (Faridpur), and Giridih, have been recommended for affiliation up to the Fifth Standard and this recommendation will be submitted to the Council at its meeting on the 8th February, 1908.

The Committee have also recommended the affiliation of the Dhap Free National Institution up to the Primary Standard. They have received applications for the affiliation of about a hundred other primary schools and at their meeting on the 20th December, the Committee appointed a subcommittee consisting of Babus Ramendra Sundar Trivedi, Manomohon Bhattacharyya and Satis Chandra Mukherjee to frame an alternative Primary course to suit the requirements of primary schools in rural areas. The subcommittee's report has not yet been received. Pending this, these applications could not be dealt with.

Inspection.

The Superintendent accompanied by Babu Radha Kumud Mukherjee, M.A., P.R.S., lecturer in History and Economics, was able to make time amid his multifarious official duties to inspect the affiliated schools at Rangpur, Dinajpur, Comilla, Chandpur, Dacca and Mymensingh only. They also inspected the National Schools at Jalpaiguri and Noakhali which have been affiliated since. In view of the increase in the number of schools already affiliated and about to be affiliated, the Committee felt that the time was ripe for the appointment of a whole-time Inspector who would visit the affiliated institutions and help to organise and supervise their work.

Grants-in-aid.

The following monthly sums were paid as Grants-in-aid during the year 1907 to the following institutions:—

	Rs. 125
Dacca National School	100
Rangpur	75
Dinajpur	75
Comilla	75
Mymensing	75
Kishoregunge	50
Chandpur	40
Khulna	40
Magura	30
Majpara	30

A monthly grant of Rs. 30 was also made to the Jubilee Art Academy in Bow Bazar Street, Calcutta, to which 10 students of the Bengal National College and School are entitled to be admitted free. The Committee also paid a donation of Rs. 150 to the Kamargram National School. Thus altogether the sum of Rs. 8,395 was given as grants-in-aid during the year under review. For the current year the Committee have asked the Council to provide a total sum of Rs. 12,000 for this purpose besides the salary and travelling expenses of the Inspector of mofussil Institutions.

Donations and Subscriptions.

In the year under review the Deed of Endowment of Maharaja Suryya Kanta Acharjya Bahadur was completed and registered. By this the Maharaja has set aside property yielding an annual income of Rs. 10,000 for the general purposes of the Council. The warmest thanks of the Council are due to the Maharaja for this generous donation. This, added to the endowments created by Babu Brojendra Kishore Rai Chowdhury and Babu Subodh Chandra Mallik respectively in the previous year makes the total income of the Council from endowed property to be Rs. 33,600 per annum.

Maharaja Manindra Chandra Nandi Bahadur of Cossimbazar has agreed to pay the annual sum of Rs. 2,000 to the Council for its general purposes and the President, Hon'ble Dr. Rash Behari Ghose C. I. E. has been paying the monthly sum of Rs. 135 since July 1907, to meet the expenses of additional house rent. These added to the other monthly subscriptions make up a total of Rs. 14,840 in the year as follows—

Hon'ble Dr. Rashbehari Ghosh	1,620.
Maharaja Manindra Chandra Nandi Bahadur	2,000.
Sir Gooroo Dass Banerjee	600.
Ray Yatindra Nath Chowdhury	200.
Mr. A. Chaudhuri	100.
Mr. B. Chakravarti	3,000.
Babu Hirendra Nath Datta	3,000.

Babu Dhannulal Agarwalla ...	...	...	300.
" Pannalal Dey ...	...	...	120.

All these subscriptions have been realised up to the end of December, 1907. Early in 1907 a special subscription was started for the equipment of the laboratories and work-shops of the Bengal National College. The following is a list of the donations received and promised up to 31st December, 1907.

Donations.

Received up to 31st December, 1907.

Hon'ble Dr. Rashbehari Ghose ...	...	...	Rs. 6,000
Sir Gooroodas Banerjee ...	...	...	" 1,000
Babu Brajendrakishore Roy Chowdhury ...	...	...	" 1,000
" Dwarka Nath Chakraverty ...	...	...	" 1,000
" Mohini Mohan Chatterjee ...	...	...	" 500
" Kedar Nath Banerjee ...	...	...	" 500
" Gopal Das Chowdhury ...	...	...	" 500
" Kailash Chandra Chowdhury ...	...	...	" 500
" S. K. Lahiri ...	...	...	" 288
" Anath Bandhu Guha ...	...	...	" 300
Kaviraj Bijoyratna Sen ...	...	...	" 100

Small Donations received through—

Babu Satis Chandra Mukerjee ...	...	...	Rs. 959-7-6
B. Chatterjee Esq. ...	...	...	" 646-6-0
Santan Sampraday of Bhowanipur, Calcutta ...	...	...	" 1,200
Swadesh Hitaishini Sabha ...	...	...	" 244-8-0

Donations.

Promised donations in 1907 not realised on the 31st December, 1907.

Babu Gaganendra Nath Tagore ...	...	...	Rs. 5,000
Maharaja Sir Jatindra Mohan Tagore ...	...	...	" 1,500
Ray Yatindra Nath Chowdhury ...	...	...	" 1,000
Babu Gopal Das Chowdhury ...	...	...	" 500
Babu H. Bose ...	...	...	" 1,000
" Hirendra Nath Datta ...	...	...	" 1,000
Satyendra Nath Tagore Esq. ...	...	...	" 1,000
N. C. Mallik ...	...	...	" 1,000
A. Chaudhuri ...	...	...	" 1,000
Kaviraj Bijoyratna Sen ...	...	...	" 900
Rani Kusum Kishori Devi ...	...	...	" 1,000
Maharaja Suryakanta Acharyya Bahadur ...	...	...	" 1,000
Babu Jyotirakishore Chowdhury ...	...	...	" 1,000
Kumar ... Kumar Roy ...	...	...	" 1,000
Babu ... Chharam Guha ...	...	...	" 1,000

The Committee feel that in order to equip the laboratories and workshops

in an efficient manner the above donations must be largely supplemented and they take this opportunity of appealing to all members of the Council and to the public generally to place them in possession of sufficient funds for the purpose above mentioned.

Public Examinations.

The Council held its annual public examinations in the month of July, 1907, in the Fifth and Seventh Standards of the Council corresponding to the Matriculation and F. A. Examinations of the Indian Universities and also in the Primary and Secondary Technical Courses of the Council. The Council was fortunate in securing the services of some of the most distinguished scholars and educationists to set the papers for the examinations which were so framed as to discourage cram and to test general knowledge and intelligence.

There were altogether 163 candidates and the following places were fixed as centres for the examinations *viz.* Calcutta, Dacca, Rangpur, Comilla, Bankipur, Lahore, Benares, Agra and Amraoti.

122 candidates sat for the Fifth Standard Examination of whom 75 passed, 24 being placed in the First, 37 in the Second and 14 in the Third Division.

16 candidates sat for the Seventh Standard Examination of whom 8 passed, 2 being placed in the First, 5 in the Second and 1 in the Third Division.

18 candidates appeared in the Primary Technical Examination of whom 15 passed, 4 being placed in the First, 8 in the Second and 3 in the Third Division.

5 candidates appeared in the Secondary Technical Examination of whom 2 passed in the Second Division.

The percentage of passes was about 62 and the reports of the examiners about the quality of the answers were encouraging.

It will be seen that whereas in 1906 the total number of candidates was 729, it came down to 161 in the year 1907. There was a large falling off which in the opinion of the Committee was due to two causes. The scheme of Examination in 1907 was mainly on the lines of the courses of studies adopted by the Council, which in many respects are different from those of the Indian Universities and students not trained up in those courses found it impossible to appear at the Council's Examinations. The other cause was the absence of the temporary circumstances which excited public feeling in 1906 and which ceased to operate in 1907.

The next public Examinations are to be held in June, 1908 and the scheme thereof after settlement by the Executive Committee has been published and is being circulated. It may not be out of place to give here some of the distinguishing features of this scheme.

(1) The scheme of the Fifth Standard Examination corresponds to the Matriculation Examination scheme of the Indian Universities. There are some important divergences:—

(a) Bengali, or some other Indian vernacular is a compulsory subject for examination; (b) a special knowledge of the Geography of India to be tested

in addition to a general knowledge of the quarters of the globe; and (c) provision is made in the system of marking so that a student who is remarkably proficient in any particular subject may pass even though he may get less than the minimum in any other subject or subjects. The last feature is common to this and the Seventh Standard Examination. There will be further important changes in the scheme of the Fifth Standard Examination next year so as to make it correspond to the scheme of studies adopted by the Council.

(2) In the Seventh Standard Examination there will be an oral examination in every subject in the Literary Course along with the written, and carrying the same number of full marks as the written examination. The object of doing this is to test real knowledge of the subject and defeat cramming.

(3) There will be a theoretical as well as a practical examination in all subjects in the Scientific Course.

(4) Detailed syllabuses of Indian Ethics and Indian Psychology have been framed for the Seventh Standard Examination. In the absence of any extant text-books on the subject, the syllabuses are a valuable guide to the teachers who will find therein a complete and systematic outline of these subjects to be found nowhere else. Syllabuses have also been framed for Western Ethics and Psychology, no text-books being fixed for these subjects.

(5) There is to be no examination in text-books in the subjects of both English and Vernacular, except an examination in original composition.

(6) Calcutta is the only centre for the next Seventh Standard Examination.

Medals, Scholarships and Stipends.

On the result of the Examinations, the following medals have been awarded viz., Sir Gooroo Das Banerje's Medals to Sreemans Kunja Behari Lall and Prafulla Chandra Chakravarty who occupied the first place on the Fifth and the Seventh Standard Examination respectively. Babu Jyotish Chandra Das Gupta of Dacca has also offered to give a silver medal to the student securing the highest marks in History in the Fifth Standard Examination. This medal has been won by Sriman Jogesh Chandra Chakravarty.

One Scholarship of Rs. 15 and two of Rs. 10 per month have been awarded to Sreemant Chhirendra Kumar Sarkar, Narendra Nath Sen, and Harendra Chandra and they are tenable for two years. Five stipends of Rs. 8 each were awarded to deserving students of the 6th year class. In addition to these the Scholarships and stipends awarded in 1906 were continued during the last year. A list of the students holding scholarships and stipends and also the names of the students will be found in Appendix D.

Finances.

The total receipts up to the 31st December, 1907 amounted to

Rs. 1,33,515-14-3 and the total disbursements to Rs. 1,22,084-4-9 leaving a balance at the end of the year of Rs. 11,431-9-6. A summary of the accounts together with the auditors' report will be found in Appendix A. A Balance-sheet containing a summary of the property and liabilities of the Council on the 31st December, 1907 has been made out and is given in Appendix B. The Executive Committee hereby place on record their special obligation to the auditors for their honorary services and their appreciation of the thorough and efficient manner in which they have done their work.

SCHEMES OF STUDIES.

The Council adopted early in the year a mixed course of studies for the Sixth and Seventh Standards of the Secondary Course dividing it into two alternative courses, (1) a Literary and (2) a Scientific and Technical course and grafted manual and technical training on the system of general education throughout the Primary and Secondary stages. This scheme has since been in operation. For the Technical Department, the Superintendents prepared a course of Studies and Workshop Practice which after consideration by the Technological Board was adopted by the Committee and the Council. The result is that from the first year of the Primary stage up to the Fifth Standard or Matriculation stage of the Secondary course, scientific and technical education goes hand in hand with literary education. In the Primary stage such education is imparted through the method of object lessons and kindergarten and drawing is insisted on throughout and the boys are taught the use of simple tools, clay-modelling, paper-cutting, wicker-work, and the preparation of simple models in card board. Thus the training of the intellect goes on simultaneously with the training of the hands and the senses.

Throughout this stage the teaching is as far as possible oral without reference to text-books.

In the Secondary stage, work-shop practice is first introduced and goes on along with scientific instruction up to the Matriculation standard. Elementary Science (Physics, Chemistry, and Biology) is introduced in the First Year of the Secondary stage and rises by graduation until in the Fifth Standard the student has acquired a fair and accurate knowledge of these branches of science. Up to this point all branches of science are taught with the aid of experiments and without text-books and no written examinations are held.

At the end of the Fifth Year of the Secondary stage, the student may take either (1) the Secondary Literary Course or (2) the Secondary Scientific Course or (3) the Secondary Technical Course. The detailed syllabus will be found in a separate publication of the Council entitled "Statement of the Scheme of Study adopted by the National Council." The following is a summary of the scheme.

I. The Secondary Literary Course.

(Extending over two years.)

A. For study only.—An oriental vernacular, English; Logic, and elementary Physics and Chemistry.

B. For study and examination.—

(1) An Oriental Classic, and

(2) Any one of the following groups :—

(a) History and Economics.

(b) Psychology and Ethics.

(c) Pali, Hindi and either Marathi, or Gujarati, or Tamil, or Telugu.

(d) French and German.

Candidates for the Seventh Standard Examination (corresponding to the F.A., or Intermediate Examination of the Indian Universities) who take up the *Secondary Literary Course* are required to write an essay in English and also an essay in vernacular in one or more of the subjects prescribed for the examination.

C. For study only.—*Optional.*

One or more of the commercial subjects, *viz.* Shorthand, Type-writing, Book-keeping, Banking, Insurance, Commercial Geography, Correspondence and Arithmetic.

II. The Secondary Scientific Course.

(Extending over two years.)

A. For study only.—An oriental vernacular, English, Logic and elementary Economics.

B. For study and examination.—

(1) Physics and Chemistry (with laboratory work) and

(2) Any one of the following groups.—

(a) Mathematics, Drawing and Workshop Practice.

(b) Biology and Physiology (with laboratory work).

(c) Geology and Biology (with laboratory work).

(d) Agriculture and Biology (with practical work).

Candidates for the Seventh Standard Examination who take up the *Secondary Scientific Course* are required to write an essay in English and also an essay in vernacular in one or more of the subjects prescribed for examination.

III. The Secondary Technical Course.

(Extending over three years.)

A. A special course of instruction in—

(i) Physics,

(ii) Chemistry,

(iii) Mathematics,

(iv) Drawing, and

B. A special course of instruction in—

(i) Machine-Drawing,

(ii) Mechanics,

(iii) Steam-engines, Boilers and Prime Movers,

(iv) Hand and Machine Tools,

(v) Pattern-making,

(vi) Brass-moulding,

(vii) Smithy,

(viii) Turning,

(ix) Fitting.

After the Secondary Stage comes the College course extending over 4 years which is divided into :—

I. Literary, subdivided into (a) Linguistic, (b) Historical and (c) Philosophical.

II. Scientific, subdivided into (a) Mathematics (1) Pure (2) Mixed (b) Physics, (c) Chemistry, (d) Physiology, (e) Zoology, (f) Botany and (g) Geology with allied branches of science in each case.

III. Technical, subdivided into (a) Agriculture including forestry, (b) Manufacture including mining and (c) Commerce including Zemindary management.

In a general way the ideal of education embodied in the above schemes in the main the ideal of education adopted by modern Universities in the West as distinguished from those founded on the old classical model. The aim is to incorporate and assimilate and adapt as much of the modern side as possible while maintaining and extending the classical side as represented especially by the languages, literatures, histories, and philosophies of the country. [Vide Appendix—Memorandum of Association.] With this view the scheme provides for a good preliminary grounding of the boys in literary, scientific and technical or manufacturing subjects in an eight years' course up to the Matriculation (the Councils' Fifth Standard) stage. Between the Matriculation stage and the Collegiate stage of the Council there is the Intermediate course. The Collegiate Course, which, as already stated, extends over four years, is expressly intended for specialisation in one subject or a group of allied subjects, *viz.* either Languages, History (including Economics) Mathematics, Philosophy, Physics, Chemistry, Mechanical Engineering etc. The Collegiate Course is known as the Proficiency Course, but a higher degree of specialisation is sought to be attained in the High Proficiency Course (extending over two years) which comes after the Proficiency Course. With a view to prepare students for the work of specialisation that is demanded of them in the College or Proficiency Course, the Intermediate Course (known as the Sixth and Seventh Standard Course) provides a trifurcation of studies and students are allowed to choose either a Literary Course, or a Technical Course, or a Scientific Mixed Course. In the Inter-

mediate Literary Course, there is a further division of work, boys having the option of choosing between a number of different groups like (a) History and Economics ; (b) Ethics and Psychology ; (c) Urdu, Hindi, and either Marathi or Gujarati, or Tamil or Telugu ; an optional classical language (Sanskrit or Arabic or Persian) being a compulsory subject for every student taking up the Literary Course. It is hoped that the road to specialisation in one subject or a group of allied subjects of the College or Proficiency Course will by this means have been made smooth for the students after they have passed through this Intermediate Course. At the same time the interests of general culture are safe-guarded by the provision that all Intermediate students will have to undergo training in some other general subjects which shall be subjects for study but not for examination. This provision, it will be noted, is a departure from the existing system of education ; and it is intended to serve the salutary purpose of making students and teachers work with a view to learn and to teach these subjects without the artificial stimulus of an examination. In a similar manner, in the Intermediate (mixed) Scientific Course there is scope for choice among a number of sub-groups *e. g.* (a) Mathematics, Drawing and Workshop ; (b) Biology (Botany and Zoology) and Physiology ; (c) Agriculture and Biology ; (d) Geology and Biology ; with Physics and Chemistry as compulsory subjects for all students offering the Mixed Scientific Course.

The Intermediate Technical Course (Mechanical Engineering) extending over three years provides for a general course of instruction in subjects like Physics, Chemistry, Mathematics, and Drawing and also a special course of instruction in a number of special subjects like pattern-making, brass-moulding, smithy, turning, fitting, hand and machine tools, steam engines, boilers and prime movers, mechanics and machine-drawing.

The foregoing general analysis of the scheme of studies adopted by the Council will shew that by combining scientific and technical training with literary education up to the Matriculation standard, and providing for progressive specialisation in either literary or scientific or technical or scientific and technical subjects in the higher Intermediate, Proficiency and High Proficiency Courses, the Council aims at performing at different stages the functions of a Modern University and also of a Research University on a small scale. The boys trained in this system will receive an education which would enable them to be trained citizens who shall be able to think for themselves, and to help themselves and their country by developing its material resources and satisfying its pressing wants. In fact, the Council aims at training its scholars in such a way that they may have the power, capacity and courage to work their way in life on independent lines in the various departments of literature, science and industry. With that view, side by side with literary subjects, Science (Physics, Chemistry, Biology) and Workshop Practice have been prescribed as compulsory subjects from the lowest classes upwards

and are to be taught by means of experiments, and without the aid of text books. It goes without saying that no system of industrial or technical training intended for adult students whose minds have been exclusively nurtured on literary subjects in their school career can be conducive to the growth of technical talent and capacities.

BENGAL NATIONAL COLLEGE AND SCHOOL.

The National College and School which was started on the 15th August, 1906 made good progress during the year under review. It teaches the Primary, Secondary and College courses according to the schemes of studies adopted by the Council.

This Institution was located at No. 191-1 Bowbazar Street until June, 1907. The Committee finding the accommodation there wholly inadequate for the institution removed to the premises it now occupies viz., Nos. 166 and 164 Bowbazar Street which they secured at the monthly rent of about Rs. 450 on a 5 years' lease. The Institution has been located here since July, 1907. The following is the list of Directors of Studies and of the Instructive and Executive staff of the College during the year.

DIRECTORS OF STUDIES.

<i>Names of Directors.</i>	<i>Subjects.</i>	<i>Names of Directors.</i>	<i>Subjects.</i>
1. Mahamahopadhyaya Chandrakanta Tarkalankar	... Sanskrit Literature and Philosophy.	4. Sir Gooroo Das Banerji Kt., M.A., D.L.	... Mathematics.
2. Moulavi Muhammad Yusuf Khan Bahadur, M.A., B.L.	... Arabic, Persian and Urdu.	5. Dr. P. K. Ray, D. Sc.	... Philosophy.
3. Hon'ble Dr. Rashbehari Ghose, M.A., D.L., C.I.E.—	... English.	6. Raja Pearymohan Mukherji, M.A., B.L., C.S.I.	... Economics.
		7. Babu Surendra Nath Banerji	... History.
		8. Babu Rabindra Nath Tagore	... Bengali.
		9. Babu Ramendra Narayan Trivedi, P.R.S.	... Physical Science.

Instructive Staff, 1907.

Sanskrit and Indian Philosophy :—
 Pandit Chandrakanta Nyayalankar
 „ Durgacharan Samkhya-Vedantatirtha.
 (Hony.)

Pandit Mokshada Charan Samadhyay
 „ Udayar Nath Kavya
 Srijukt. Satishchandra M.

Indian History and Geography :—

Srijukta Aravinda Ghose, B.A. (*Cantab.*)
 Pandit Sakharan Ganesh Deooskar*
 (*Rajput and Maratha History*)

Bhikshu Purnanda*
 (*Buddhist Period.*)

Pandit Durga Charan Vedanta-Tirtha,
 (*Ramayana and Mahabharat Period.*)

Srijukta Rabindra Narayan Ghose, M.A.
 " Benoy Kumar Sirkar, M.A.

European History :—

Srijukta Aravinda Ghose, B.A. (*Cantab.*)

" Radha Kumud Mukherjee,
 M.A., P.R.S.

" Rabindra Narayan Ghose, M.A.

" Prasanna Kumar Bose, M.A.

" Satis Chandra Mukherjee,
 M.A., B.L., (*Hony.*)

Political Economy :—

Srijukta Radha Kumud Mukherjee,
 M.A., P.R.S.

" Prasanna Kumar Bose, M.A.

" Satis Chandra Mukherjee,
 M.A., B.L., (*Hony.*)

Political Science :—

Srijukta Aravinda Ghose, B.A., (*Cantab.*)
 (*European Systems*).

Pandit Chandra Kanta Nyayalankar,
 (*Ancient Hindu System*)

Srijukta Satis Chandra Mukherjee,
 M.A., B.L., (*Hony.*)

Arabic, Persian and Urdu :—

Moulvi Mainuddin

Bengali :—

Srijukta Kshirod Prasad Vidyabinode,
 M.A., (*Hony.*)

" Amulyacharan Ghose Vidyabinode,
 (*Hony.*)

" Pandit Sakharan Ganesh Deooskar*
 Prasanna Kumar Bose

Joined service in January, 1908.

Pali :—

Srijukta Dharmananda Kosambi
 Bhikshu Purnanda*

Marathi and Hindi :—

Pandit Sakharan Ganesh Deooskar*

Srijukta Baburao Paradkar

French and German :—

Srijukta Aravinda Ghose, B.A., (*Cantab.*)

" Amulya Charan Ghose, (*Hony.*)

English :—

Srijukta Aravinda Ghose, B.A. (*Cantab.*)

" Satischandra Mukherjee, M.A.,
 B.L., (*Hony.*)

" Prasannakumar Bose, M.A.

" Radhakumud Mukerji, M.A.,
 P.R.S.

" Rabindra Narayan Ghose, M.A.

" Benoykumar Sirkar, M.A.

Western Philosophy :—

Srijukta Pramatha Nath Mukherjee,
 M.A.

" Satischandra Mukherjee, M.A.,
 B.L., (*Hony.*)

Biology :—

Dr. Indumadhab Mallik, M.A., B.L.,
 (*Hony.*)

" Bepin Behari Chakravarti, L.M.S.

Srijukta Girindra Kumar Chowdhury,
 (*Laboratory Asstt.*)

Physics and Chemistry :—

Srijukta Kshirod Prasad Vidyabinode,
 M.A., (*Hony.*)

" Jagadindu Roy.

" Manindra Nath Banerjee.

" V. K. Paranjpye, L.E.E.

" Haran Chandra Chakladar,
 M.A.

" Naranarayan Biswas, B.A.

" Ramesh Chandra Bhatta-
 charyya, (*Laboratory Asstt.*)

" Hemranjan Ghatak, Do.

Mathematics :—

Srijukta Mahendra Nath De, M.A.,
 B. Sc.

" Kishori Mohun Gupta, M.A.

" Arabindaprakash Ghose, M.A.

Drawing :—

Srijukta B. B. Ranade, L.M.E.
 (*Lecturer in Machine Drawing.*)

Srijukta Kshitish Chandra Mukerjee
 (*Art Teacher and Mechanical
 Engineering Draughtsman.*)

Kindergarten :—

Srijukta Nerod Bhushan Bose.

Technical Department :—

Srijukta B. B. Ranade, L.M.E.—*Super-
 intendent, and Lecturer in Me-
 chanical Engineering.*

" V. K. Paranjpye, L.E.E., *Lec-
 turer in Electrical and Mecha-
 nical Engineering.*

" Nagendra Nath Rakshit—
Foreman Instructor.

Commercial Department :—

Srijukta Kailash Chandra Sircar.

" Bhabani Charan Baral.

" Prosad Das Guin.

" Jnanada Kanta Chakravarty.

Executive Staff.**Principal—**

Srijukta Aravinda Ghose, B.A.,
 (*Cantab.*)

(*From January to July.*)

Srijukta Satischandra Mukherjee,
 M.A., B.L., (*Hony.*)

(*From July to December.*)

Superintendent—

Srijukta Satischandra Mukherjee
 M.A.B.L., (*Hony.*)

Assistant Superintendent—

Srijukta Haran Chandra Chakla-
 dar, M.A.

Assistants to Superintendent—

Srijukta Jatindra Narayan Ghose,
 B.L.

Srijukta Naranarain Biswas, B.A.

Head Clerk—

Srijukta Nirod Bhushan Basu.

Librarian—

Srijukta Janandakanta Chakra-
 varti.

Mr. Aravinda Ghose who had joined the College at great personal sacrifice and who acted as Principal up to July, 1907, temporarily severed his connexion with the College and Babu Satis Chandra Mukherjee M.A., B.L., (*Hony.*) Superintendent was appointed in his place and has since discharged the functions of Principal in addition to his duties as Superintendent. Mr. Ghose rejoined in December in the capacity of Lecturer in History and Political Science, filling the Hem Chandra Mallik chair created under the endowment of Srijukta Chandra Chandra Mallik. There were also some other minor changes in the staff.

During the year under review the staff in the General Department was strengthened by the appointment of a lecturer in Biology, an additional lecturer

turer in Science and one in Indian History, two laboratory assistants, a Drawing Teacher and two teachers of wicker-work and cardboard cutting. The Technical Department (which is in charge of Mr. B. B. Ranade, L.M.E. who has had a long experience in the Victoria J. Technical Institute, Bombay, as an Assistant Lecturer in Mechanical Engineering and Machine Drawing, and also Assistant Superintendent in charge of the workshops,) was strengthened by the appointment as Lecturer in Electrical and Mechanical Engineering of Mr. V. K. Paranjpye who is a passed Mechanical Engineer and a Licentiate in Electrical Engineering from the Victoria J. Technical Institute, and has had experience as an Assistant Lecturer in Electrical Engineering in that Institute and as Assistant Superintendent in charge of its Electrical workshops. The Department was further strengthened by the appointment as Foreman Instructor of Babu Nagendra Nath Rakshit who was trained in the Jamalpur Workshops of the East Indian Railway Company, the biggest workshop in the whole of India and who has proved an enthusiastic worker and an able assistant to Mr. Ranade. The Executive Committee are again able to congratulate themselves on the efficiency and whole-hearted devotion of their staff. Most of them worked at considerable personal sacrifice and many on mere subsistence allowance. The rank of honorary workers was swelled this year by the addition of Pandit Durga Charan Sankhya Vedanta Tirtha. Babu Satis Chandra Mukerjee, M. A., B. L., Dr. Indumadhab Mullick M.A., B.L., M.D., Babu Kshirodprasad Vidyabinode M.A., and Babu Amulya Charan Ghose Vidyabhusan continued to give their honorary services to the College and the Committee beg to place on record their most sincere acknowledgments to these gentlemen.

The College at present not being a residential one, the Committee seeks to create the atmosphere of a residential College by requiring the teachers and lecturers, to work in the College Library, Laboratories and Workshops at their special subjects with a view to equip themselves more fully for this work as specialists as also to direct the studies of the more advanced pupils. The Committee are happy to report that some progress has been made in this direction during the year under report by Pandit Kedar Nath Bhattacharjya, Lecturer in Sanskrit Poetry, Babu Bepin Behary Chakravarty, Lecturer in Biology and Babu Nagendra Nath Rakshit, Foreman Instructor consenting to live in the College premises as resident teachers at considerable personal inconvenience. Their readiness to undergo hardships in order that they may devote themselves to the interests of the College is worthy of special mention as they have by the means of creating a moral atmosphere for the Institution which could hardly have been possible by other means. The spirit of devotion to the interests of the College is also marked in the office staff, two of whom are Babu Bhusan Bose, the Head clerk, and Babu Jnanada Kasta Chakravarty, the Librarian. They are also resident officers of the Institution and work from the morning to 9 in the evening.

In this connection the services of Babu Haran Chandra Chakladar, M.A., who combines in himself the triple functions of Assistant Secretary, Assistant Superintendent, and Lecturer in Science deserve special mention. In the matter of organisation, he has been the right hand man of the Principal and Superintendent and the rapid advance which the College has been able to make in the matter of organisation in the course of a year and a half may be said to have been due mainly to the untiring energy and the skilled assistance of Babu Haran Chandra Chakladar. The organisation of the College has been further materially helped by the services freely and ungrudgingly rendered by Babu Kisor Mohan Gupta, M.A., Lecturer in Mathematics, Babu Manindra Nath Banerjee, Lecturer in Chemistry and Babu Kshitish Chandra Mukherjee, teacher of Drawing. The Committee need hardly say that if the entire staff of the College, in all its several departments should act as a unit, and co-operate with each other in the discharge of their respective and common functions, a force would be created which would at once lift the cause of National Education on a high level and draw to it the admiring eyes of the whole educated public. The organisation of an independent University College like the Bengal National College is a stupendous task and the Committee require and rely on the whole-hearted devotion of the entire staff for the achievement thereof.

To give an idea of the work done in the National College in the year 1907, it is necessary to furnish an account of each of its four departments *viz*, (i) Literary, (ii) Scientific, (iii) Technical and (iv) Commercial under separate heads. Such an account is given below from which it will be seen that the progress made has been on the whole satisfactory.

(A) LITERARY DEPARTMENT.

In this department the subjects to which special attention is given are (i) History, (ii) Philosophy and (iii) Literature. In teaching their special subjects the lecturers made special efforts to inspire the students with a love for the subjects taught and to create an atmosphere of research and original thought. As an incentive to the students to prepare the ground-work for the text books which it will be necessary to publish in view of the syllabuses and courses of studies adopted by the Council, several of the Lecturers engaged themselves in research work. One of the Lecturers in History, Babu Rabindra Narayan Ghose, M. A., was put in charge of Indian History and Indian Geography in the school classes up to the Fifth Standard. He has devoted considerable attention to the subject of Indian History and Indian Geography and in view of the progress made by him it is expected that the Committee will be able in due course to publish a book on these subjects according to the syllabus prescribed for the Fifth Standard course. There are at present no such text-books available and the subject have to be taught without their aid.

One of the Lecturers in Economics, Babu Radha Kumud Mukherjee, M. A., P. R. S. who distinguished himself in Economics in the University Examinations, has been working at the subject of Indian Economics, a subject which presents many novel features and has not hitherto been attempted to be taught in a systematic manner. The materials necessary for a book on this subject are not easily available and the lecturer has consequently to work at his subject at a great disadvantage. The progress made by him has been slow. It will be remembered that the President who takes a special interest in the subjects of Indian History and Indian Economics has offered to bear all the expenses necessary for the preparation of suitable text-books embodying the results of original researches into these fields and the Committee are glad to announce that the first steps have been taken by Babu Radha Kumud Mukherjee in this direction.

In the higher branches of Indian History, several of the Lecturers worked at particular periods or sub-periods as given in the college syllabus. Pandit Chandra Kanta Nyayalankar who teaches the subject of ancient Hindu Political Science has been making a special study of Kamandakiya Nitisara, Sukraniti etc. and his lecture-notes when expanded will, it is expected, form a good Introduction to the subject. The Committee expect considerable progress to be made in this direction by the end of the current year.

Pandit Sakharan Ganesh Deoskar, a Marathi scholar who recently joined the College as a wholtime Lecturer in History is in charge of the Marhatta period of Indian History, of which he has special knowledge and is making a special study. He will be able to lay under contribution not only the old materials of Marhatta History already utilised by scholars but also those which have recently come to light and are only available in the Marhatta original, such as the Diaries of the Peshwas &c. Pandit Sakharan proposes to translate these as well as some unpublished Marhatta chronicles into English or Bengali and the Committee have reason to believe that he will be able to show before the end of the year a good record of original work in this his special field of study.

It is required by the Council's schemes of studies that any one seeking to specialise either in History or Philosophy should be well grounded in one or other of the classical languages, viz Sanskrit or Pali for Hindu students and Arabic or Persian for Mahomedan students. The utility of this provision is already demonstrated. For instance, the College History students have to study the Buddhist period of Indian History. This is being taught from original Pali texts by Vikshu Purnananda who is a distinguished Pali scholar. He was educated in a Buddhist monastery at Moulmein and later on, in the Buddhist College, the Vidya Vaya Oriental College, Ceylon, where he had a distinguished career. He knows English and Bengali. He is making original researches in the Buddhist period of Indian History. The Committee hope before long to place the necessary books at his disposal when they expect

he will be able to make valuable contributions to the particular period of Indian History of which he is in charge.

Other portions of Indian History are being investigated by Pandit Durga Charan Vedanta-Sankhyatirtha and Babu Panchanan Banerjee B.A.; the former is making a special study of the Ramayana and the Mahabharata and has been lecturing to the History students on the Ramayana period of Indian History. His lecture-notes when expanded and arranged will make a useful volume. The Pandit is at present engaged in preparing a topical index of the Ramayana.

Babu Panchanan Banerjee B.A. has been reading *Rajtarangini* (the History of Kashmir) in the original with the College History students and has been shewing much interest in his honorary work. It is expected that he will be able to complete before the end of the year his lecture notes which when published will form a good introduction to the study of this well-known but difficult work. After *Rajtarangini* is finished, Babu Panchanan Banerjee will, it is hoped, be able to take up other Sanskrit works—biographies discourses and poems having a distinct historical value and interest and study them with the students.

It will be remembered that one of the groups of subjects prescribed for the Intermediate course is Pali, Marathi and Hindi. Already about a dozen Bengali students have taken up this group. Pali and Marathi are also taught to History students in the College Course. It is expected that the students who are learning these languages will be able to assist and co-operate with their lecturers in research work in Indian History so that in course of time it may be possible for the Council to build up a school of Indian History with the help of the College Lecturers and of advanced students receiving special training under their guidance.

In the department of Indian Philosophy, two of the Lecturers, Pandits Kedarnath Sankhyatirtha and Chandra Kanta Nyayalankar have been doing useful work. The former has been working at the detailed syllabuses of Indian Psychology and Indian Ethics prescribed for the Intermediate course which he teaches to the 7th year students. He is well versed in Hindu Philosophy and it is expected that before the end of the year, he will be able to prepare two handy text-books for the use of these boys. Pandit Chandra Kanta Nyayalankar teaches the subject of Nabya-Nyaya Philosophy to the students in the College. The Pandit is a specialist in this subject which, as is well known, is highly abstruse and technical in its nature. For the benefit of the students, Pandit Chandra Kanta is engaged in preparing a careful body of notes which when completed will form a handy and very useful text-book on Hindu Logic.

Mr. Dharmananda Kosambi who has recently been appointed Reader in Pali to the Calcutta University and who is now an honorary lecturer in Pali at the College is in charge of Buddhist Philosophy in the College Course. The Committee greatly appreciate his services to the College and hope that he will be able

before long to present them with a hand-book of Buddhist Philosophy compiled from the original sources to which he has access.

Babu Mahendra Nath De, M.A., B.Sc. is a devoted student of Mathematics. He is in charge of that subject in the College. He is engaged in making researches into the History of Hindu Mathematics. The Committee hope that he will during the current year be able to pursue his study with vigour so that he may be in a position to produce a work of value on the subject of Hindu Mathematics.

Babu Benoy Kumar Sarkar, M. A. has been specially devoting himself to a study of Pedagogics. He takes special pleasure in teaching boys of the lower forms and his suggestions for improvement in the methods of teaching are always helpful. He is preparing himself to write a teacher's hand-book for use in National Schools. *Pedagogics* is one of the subjects included by the Council in its scheme of studies and although no classes have yet been formed, the Committee note with pleasure that the teachers are already alive to its importance. The Committee look forward to the production of the teacher's hand-book by Babu Benoy Kumar Sarkar with interest.

In this connection the Committee deem it desirable to mention that the Lecturers in Science, Babu Jagadindu Roy (Lecturer in Physics), Babu Manindra Nath Bannerjee (Lecturer in Chemistry) and Babu Bepin Behari Chakravarty (Lecturer in Biology and Physiology) have undertaken to prepare Science text-books in their own special subjects in conformity with the syllabuses and schemes of studies adopted by the Council. It is expected that appreciable progress will be made by them before the end of the current year. It is needless to say that having regard to the fact that Science-teaching is compulsory throughout the course up to the Matriculation standard, and that a large number of schools have been and are being started in various parts of the country where Science is taught according to the scheme of the Council, the preparation of these text-books will remove a crying want.

Working on the lines indicated above, it is not unreasonable to expect that after the students will have completed their College Course on the Literary side, they will be qualified to undertake useful work in one or more of the following departments for which the field is already ample and will go on expanding: (1) Indian Archaeology, (2) Indian History and Geography, (3) Indian Economics, (4) Indian Vernacular Literature, (5) Indian Journalism, (6) Teaching in National Schools and Colleges and (7) Preparation of text-books in the vernacular. The Committee accordingly feel satisfied that with the training given to the students in the Literary Department, they will be able to pursue useful and independent careers when they go out into the world.

(B.) SCIENTIFIC DEPARTMENTS.

As stated, the College and School were, until June, 1907, located in a house which did not afford sufficient accommodation for the proper

construction of the workshops and laboratories. In July and August they were removed to premises Nos. 166 and 164 Bowbazar Street and the construction of the workshops and laboratories was at once taken in hand and has since made fair progress.

(a.) Physical Department.

In this department there are two laboratories and a scientific workshop.

For the workshop the Council made a grant of Rs. 1500 and sanctioned Rs. 50/- per month for working expenses.

Already tools and appliances worth about Rs. 800 have been purchased and orders to the extent of Rs. 700 sent out. Two workmen, a mechanic and a carpenter, were engaged for this workshop and with the help of the students and under the supervision of Babu Jagadindu Ray in charge of this department, a large number of articles were manufactured during the few months the workshop had been in existence.

For the current year, the sum of Rs. 1500 has been budgetted for additions to the workshop and Rs. 750 for working expenses.

Of the two Physical Laboratories, that attached to the lower school department is located at No. 164, Bowbazar Street and is intended for the use of the boys of the Primary Department and those of the lower forms of the Secondary Department. A separate grant has been made for this laboratory which is being organised by Babu Jagadindu Ray, Lecturer in Physics, assisted by Babu Haran Chandra Chakladar, M.A., Assistant Superintendent, and Babu Nara Narayan Biswas B.A., teacher of science.

The other Physical Laboratory (which is attached to the upper school and College department) is in charge of Babu Jagadindu Ray. This was started with a grant of Rs. 11,000 for instruments and appliances and Rs. 1200 for fittings. Instruments were ordered (after sanction by the Director of Scientific Studies, Babu Ramendra Sundar Trivedi M.A.) from Europe and America. About Rs. 9000 worth of apparatus have already arrived and the rest are expected to arrive soon. Apparatus worth about Rs. 150 were purchased locally, some other were prepared in the Technical Workshop and some in the Scientific Workshop of the College. The Laboratory is being further equipped for enabling lecturers to undertake advanced work in any of the departments of Physics.

The Laboratory is being fitted up with gas and electric connections.

For the current year the following amounts have been budgetted:—

Apparatus ...

Working expenses ...

Furniture and fittings ...

Rs. 4,000

Rs.

Rs.

In his report to the Secretaries, the Lecturer in Physics gives a good account of the progress made by the students and of the assistance rendered to him by the students in the laboratory and workshop.

(b) Chemical Department.

In July, 1907, the Chemical Laboratory was removed to the new site and the Lecturer in charge, Babu Manindranath Banerjee at once got to work to fit it up in a thorough and up-to-date fashion.

The total value of the apparatus and appliances in the Chemical Laboratory including those ordered during the last year but received after the 31st December, 1907 come to about Rs. 6000.

Besides the above sum, about five hundred Rupees worth of metal appliances were supplied during the year by the Technical workshop of the College. The lecturer in charge reports that the appliances supplied were in no way inferior to the indented articles.

During the year nearly Rs. 500 worth of chemicals were purchased for this Laboratory.

For the current year Rs. 3000 have been budgetted for apparatus and stores and Rs. 1000 for additional furniture and fittings.

The construction of the Chemical Laboratory is almost completed and provides sufficient accommodation for 40 students working at the same time. It is provided with fittings and appliances of the latest pattern. Most of the furniture and fittings were prepared in the Technical workshop of the college. A large table for lecture-work, several large almirahs for chemicals and a gallery for the lecture-class and other fittings were all constructed and fitted up by the Technical Department. The students' working-tables each costing about Rs. 235 were prepared on a new design given by the lecturer in charge and approved by Babu Ramendra Sundar Trivedi M.A., the Director of Studies in Physical Science. The available space is divided into two portions—one half being allotted for the students of the Secondary Department and the other half for those of the college classes—the latter being provided with a balance-room and a room for glass-blowing. Arrangements are also being made to fit up two rooms for photographic and the other for spectroscopic work.

For Primary boys and junior students, a small laboratory intended to train them in practical work is being fitted up according to the scheme laid down by the Director of Studies in Physical Science.

The teaching was in charge of Babu Manindranath Banerjee, Babu Kshirode Prosad Vidyabinode M.A., Babu Haran chandra Chakladar M.A., and Babu Naranarain Biswas B.A.. Some difficulty was experienced for the want of a part-time laboratory assistant. So in the current year, the Executive Committee have arranged to provide two laboratory assistants for this department.

In this department also, the lecturer in charge speaks of the progress made by students and of the valuable assistance received by him from some of them specially from Sreeman Rajanikanta Ayan and Sreeman Digendranath Sen Gupta who are honorary workers.

(c) Biological Department.

During the year under review this department was organised by the Lecturer in charge, Babu Bepin Behari Chakravarti, L.M.S., under the guidance of Dr. S. B. Mitter M.B., B.Sc. (London) and Dr. Indu Madhab Mallick M.A., M.D. The laboratory (still in its infancy) is furnished with six microscopes, a human skeleton, and some anatomical models and specimens, and will, it is hoped, be fairly equipped before the end of the current year. Arrangements have been made for teaching the subject of Urine Analysis which is being taught to the students of the Seventh Year Class, who have taken up Biology and Physiology as subjects for study. The rudiments of these subjects are being taught from the lowest classes up to the Fifth Standard to all boys, those who take them up for the 6th and 7th Standards receiving higher instruction. The lecturer in Biology reports that a fairly large number of students have taken up these subjects and are pursuing their study with great interest and success, and with a view to further progress. To meet the requirements of students of this class, further extension of the Biological department will be necessary and is in contemplation. The urgency of providing a Dissection Room has specially been brought to the notice of the Committee by the lecturer. The Biological Library has been enriched by the addition of many new books and the Laboratory by the presentation of slides (about 300 in number) prepared by Dr. S. B. Mitter himself while in England. Dr. Hem Chandra Sen, M.D. has also been pleased to offer as a gift to the Laboratory a valuable collection of preserved Botanical specimens prepared by himself for his private laboratory.

Advantage was taken of the fact that the lecturer in Biology is a medical man, and antiseptic medicines and dressing-requisites were provided as also all the necessary instruments for the treatment of cases of accidents, injuries in the workshop and for minor operations. Some cases of slight injuries which occurred were treated in this way. Two minor operations on resident students were performed. Many cases of illness among the students and the staff were also treated by the Lecturer in Biology and some serious cases of illness among students, were attended to at their homes gratis. A small stock of medicines has, for this purpose been bought—mostly from voluntary contributions made by the students themselves.

The sum of Rs. 1500 has been budgetted for the Biological Department, for the current year.

Technical Department.

During the year under review a Technical workshop of tolerably large dimensions (120 ft. x 30 ft.) was constructed in the grounds attached to the College premises at a cost of about Rs. 2500. It is now provided with tools and machines of the aggregate value of Rs. 11,000 and include among others the following machines :—

- (1) One Steam Engine.
- (2) Two Drilling machines.
- (3) One Punching and Shearing machine.
- (4) „ Shaping machine.
- (5) „ Planing machine.
- (6) „ Slotting machine.
- (7) „ Circular Saw Bench.
- (8) Three Lathes.

At present there are in the workshop a Smithy, a Moulding shop, a Carpenter's shop and a Brass Foundry. An Iron Foundry is proposed to be added during the year and further additions made to the workshop. A steam engine has been purchased and is about to be set up. For the current year the budget grant is Rs. 14,500 distributed as follows :—

Tools and machinery ...	...	...	Rs. 5000	0	0
Stores ...	...	...	„ 6000	0	0
Workshop construction	...	...	„ 3500	0	0

During the year under report the students from the primary 1st year to the 7th year Secondary received instruction in the following subjects:—

- (1) Object Lessons and Kindergarten.
- (2) Freehand, Model, and Geometrical Drawing.
- (3) Paper-cutting and preparation of simple models in card board.
- (4) Clay-moulding.
- (5) Cabinet-making.
- (6) Iron and brass moulding.
- (7) Smithing.
- (8) Carving work in wood and metals.
- (9) Machine workshop.
- (10) Forging.
- (11) Engraving.

It is proposed for the present to teach the students to manufacture articles under the following heads:—

I. Cardboard and Paper-work :—

- (a) Medicine cases.
(b) Stationery boxes.
(c) Miscellaneous boxes.

- (a) Envelope cases.
- (e) Portfolios.
- (f) Blotting pads.
- (g) Geometrical models.
- (h) Envelopes, letter-papers, postcards., &c., &c.

II. Wicker work :—

- (a) Arm-chairs.
- (b) Waste-paper baskets.
- (c) Boxes.
- (d) Travelling bags.
- (e) Tea-poy, &c., &c.

III. Clay-Moulding :—

Clay-figures.

IV. Wood-work :—

- (a) Candle-sticks.
- (b) Picture-frames.
- (c) Toys.
- (a) Handles, pen-holders and stationery cases.
- (e) Artistic furniture (fret-work).
- (f) Wood-carving.
- (g) Instrument-boxes.
- (h) Stands, tables, supports, lifts and other fittings and appliances for chemical and physical laboratories.
- (i) Drawing boards.
- (j) Set-squares.
- (k) T squares.
- (l) Parallel rulers.
- (m) Geometrical drawing models.
- (n) Measuring scales.
- (o) Models of verniers.
- (p) Kindergarten materials for children in elementary sc.
- (q) Machine and engineering models (wheels, pulleys, geared planes, screws, toy-engines, culverts, bridges, &c., &c.)

V. Metal work :—

Scientific instruments and Apparatus for Physical and Chemical Laboratories.

VI. Metal work :—

Garden tools and agricultural implemen

VII. Metal work :—

Cutlery. •

VIII. Metal work:—

Small hand-presses, Pumps, Pulley-blocks, Screw-vices, &c.

IX. Metal work:—

Sheet-metal Goods :

- (a) Locks and keys.
 - (b) Trunks.
 - (c) Candle-sticks.
 - (d) Water-buckets.
 - (e) Office-boxes.
 - (f) Canisters.
 - (g) Varnish and oil cans.
- &c. &c.

X. Metal work:—

Grinding and polishing.

XI. Glass-blowing:—

Glass-apparatus used in Physical and Chemical Laboratories.

During the year under review an apprenticeship course Class was added to the Technical Department. It was arranged that students who had not passed any previous examinations should be admitted to these Classes for practical instruction in one or more of the arts and industries mentioned above. The number of students in this Class on the 31st December, 1907 was 23.

The Executive Committee at its meeting held in September sanctioned the manufacturing of marketable articles in connection with the Technical Department as a tentative measure and put Babu Nagendra Nath Rakshit as Foreman Mechanic in charge thereof. They were enabled to do so by the offer of a donation of Rs 500 from Babu Brojendra Kishore Roy Chowdhury one of the foundation donors. This Scheme has now been tried for five months and the success that has so far attended it justifies the Executive Committee to recommend its adoption as an integral part of the Technical Department. The idea is to make this department self-supporting and the Committee are encouraged to expect that this will be the case in the course of two or three years, so that at the end of this period the whole of the expenses of this department including the salary of the staff will be met out of the profits made by the manufacture of marketable articles.

Method of Teaching in the Scientific and Technical Departments

The object of training the boys with a view to help them in finding new and independent careers in life in the departments of arts and industry, is

sought to be attained by adopting a three-fold method of teaching both in the Science and the Technical Departments. The instruction imparted may be classed under three heads—(1) Theoretical, (2) Experimental, and (3) Manufacturing. Not only are principles explained orally and by means of experiments done in the class room by the lecturer, but in the laboratories, students are required to perform the experiments themselves either under the direction of the teacher or independently as the case may be; and lastly, in the workshops students are required to manufacture articles, implements and apparatus having special reference to the teaching in the class or the laboratory. The list of articles, implements and apparatus turned out in the workshops and laboratories of the College in 1907 (*vide* Appendix E) would give the public an idea of how it is proposed to proceed. In the manufacturing branch of their work the students have an ample field not only for the application of their knowledge gained in the class and the laboratories but also for the development of their technical ingenuity and powers of invention. Such training has a further value in accustoming the student workers to work a high degree of excellence and finish in the production of articles such as would enable them to compete in the open market. Students will thus have, even while at college, an insight into the requirements of the market, which itself is a good training for those who when passed out of college, will have to set up as independent business men. The development of the students' powers of ingenuity and invention is also sought to be attained by requiring the more advanced among them to repair instruments, implements and machines; and this training may be of great service to those students who having acquired such knowledge in the college workshops would further desire to start a business on their own account after passing out of college. A practical knowledge of the methods of manufacturing scientific instruments, appliances, and articles, and a training in the actual manufacture of such articles are not at present demanded of students of schools and colleges in this country. But it is expected that as time goes on and with the rapid advance of scientific teaching and a demand for more technical knowledge in the country under the impetus of the industrial movement, the need for a greater practical acquaintance with the process of manufacture would become more and more manifest; and trained men from the Bengal National College would, it is hoped, supply a growing want. Among the things which are expected to be turned out in the workshop of the Technical Department may be mentioned different kinds of simple machinery, such as lathes, drilling machines, etc., and the lecturers in charge of the Department have a reasonable hope that they will be able to manufacture such machinery at a not very distant date. Thus in various ways, it is sought so to equip the students in the Physical, Chemical and Technical Departments, that they may be able when they enter life, to commence with a firm determination and a consciousness of power of knowledge gained in

the threefold manner aforesaid, *viz.*, theoretically, experimentally and through the method of manufacture.

In the Biological Department (where Botany, Zoology and Physiology with Physics, Chemistry, and Drawing are taught from the lowest classes upwards) the same triple method of teaching is applied; but as that Department has for various reasons not made progress to the same extent as the other Departments, the first two methods *viz.*, theoretical and practical or experimental teaching have only been hitherto adopted. The Committee do not intend, however, to leave out altogether the third method which may be introduced by making students learn the art of preparing biological specimens and appliances (microscopes, slides, charts, models, &c.) For a beginning it is proposed to teach the boys how to prepare models,—roots, fruits and stems by means of *putty* (chalk and linseed oil); leaves with green paper and cloth, and flowers with cloth. These artificial specimens can be made to look very like the natural ones: the natural specimens cannot be collected all in the same place and in the same season of the year. Neither can they be preserved like zoological specimens with their natural colour, size and shape intact. The morphology of Botany deals wholly with the external forms of roots, stems, leaves, flowers and fruits; and if life-like specimens could be prepared artificially these could be preserved and demonstrated with the greatest benefit to the boys all the year round. If such a complete set of artificial specimens representing all the details and varieties of Morphology be collected in a single place, it will form a good Botanical Museum. With short simple descriptive notes in the vernacular attached to each, the Museum will be an invaluable source of knowledge to all interested in the subject. It will make a fine exhibiton and it would not be unreasonable to expect orders from outside.

In another way which is not exactly connected with manufacture the practical method of teaching may also be adopted. The students dissect animals and prepare and preserve specimens of the organs and parts of animals and so help in the building up of a small zoological museum. The preparation of slides for the Biological Laboratory is another of the methods that will be adopted by the teacher. In these and similar other ways that may suggest themselves it is proposed to make the subject of Biology a living and interesting study, and capable of furnishing means whereby the student will be able to work his way in life. It is necessary to add that students of Biology are also students of Physics and of Chemistry—and they will therefore have opportunities of learning manufacturing work in the Physical and Chemical Laboratories. They are at present taught Urine Analysis in the Biological Laboratory and will also be instructed in the workshops to manufacture microscopes with the objective left out, which can be separately purchased from European firms. More early biological training if supplemented by a further course

of instruction in human anatomy, now under contemplation, will be a great help to and will effect much saving of time for students desirous of entering the medical profession.

Bengal National College Exhibition.

In January, 1908, a small exhibition was held in the college premises, of the articles, implements and apparatus turned out in the workshops and laboratories of the Scientific and Technical Departments during the year 1907. A list of the articles together with their cost and market prices respectively is printed in the appendix from which it will be seen that not only were a large variety of articles manufactured but that the turn out was done at a very moderate cost which compares favourably with imported articles. The exhibits were mainly of the following descriptions:—(1) Engineering wooden patterns, (cranks, brackets, etc.); (2) Engineering appliances; (3) Cutlery; (4) Drawing appliances and requisites; (5) Instruments and apparatus for the Physical Laboratory; (6) Instruments and apparatus for the Chemical Laboratory; (7) Free-hand drawings and paintings; (8) Card-board work (such as Drawing models, Medicine cases, etc.); (9) Furniture; (10) Miscellaneous: candlestands, inkstands, picture frames, penholders, office stationery cases, garden tools, syphon lamps, pulley blocks, keys, dumb bells, brass fastenings, door-grips, toy steam engine, apparatus for demonstrating the changes of value and sign of trigonometrical ratios &c. &c.

The exhibition was kept open for about three weeks and the number of visitors numbered about ten thousand, belonging to all sections of the community and included distinguished members of the landed aristocracy, the legal profession, the medical profession, distinguished merchants, engineers, high Government officials, both Indian and European, and Principals and Professors of both Government and private colleges. The visitors also included a very large number of students from the different schools and colleges of Calcutta. Visitors to the Exhibition had also opportunities of inspecting the Physical, Chemical and Biological Laboratories and also the workshops. The Exhibits received commendation from competent judges, among others from Sir Charles Allen, Kt., Chairman of the Municipal Corporation of Calcutta, and Mr. Paul Bruhl, M.I.E.E., F.R.S., F.C.S., Professor, Civil Engineering College, Sibpur, Bengal, and the Secretaries and attaches to the Imperial Chinese Commission. Their letters will be found in Appendix F.

Commercial department.

During the year under review this department imparted Commercial education in Shorthand, Typewriting, and Book keeping; the number of students

in this department is 13. Babu Koilash Chandra Sirkar was in charge of this department. Typing machines of the aggregate value of Rs. 475 were added during the year.

Physical Education

The Council sanctioned Rs 600 to provide requisites for Physical education and the Superintendent in consultation with Babu Brojendra Kishore Roy Choudhury who takes special interest in this department, made the necessary arrangements for this purpose. In the budget for the current year Rs 600 is sanctioned for providing for Physical Education.

The number of students on the rolls, on the 31st December, 1907, was 270 against 179 on the same day in the previous year. Since then 79 new students have taken admission. The fees charged in the several departments were as follows.

I. GENERAL DEPARTMENT.				
Primary	...	...	...	... Re. 1
Secondary	...	...	...	... Rs. 2
College	...	...	...	... " 3
II. TECHNICAL DEPARTMENT.				
Secondary	...	...	...	... Rs. 2
				... Rs. 3
III. COMMERCIAL DEPARTMENT.				

During the year several free-studentships were sanctioned for deserving students and on the 31st December, 1907 altogether 40 free-studentships were held in the college and the school.

Stipends of the aggregate value of Rs. 2159 were granted to holders of scholarships and other deserving students reading in the Bengal National College and School. A list of the scholarship and stipend-holders on the 31st December, 1907 together with the sum granted to them respectively will be found in Appendix D.

Library.

During the year under review the Committee made use of the generous donation of Rs. 5000 given by the President in the previous year to make valuable additions to the College Library. The Committee also received during the year donations of books from the following gentlemen, *viz.*, Babu Haricharan Guha, Mr. B. L. Mitra, Bar-at-law, Mr. P. M. Desai, Babu Satis Chandra Datta, Babu Nerode Chandra Mallik and Pandit Mokshada Charan Samadhi to whom they tender their best thanks. The result of these additions was that the number of volumes in the College Library which was 2500 on the 31st December, 1906, rose to about 4000 volumes on the 31st

December, 1907, and are of the estimated value of Rs. 15,000. The Librarian, Babu Jnanada Kanta Chakravarti has made good progress in preparing a Catalogue of the books which will soon be printed. The Committee take this opportunity to appeal to all Indian authors and publishers to present their books to the college library and thereby help to enrich the same.

During the year under review school appliances of the value of Rs. 1000 were ordered for. These include a Demonstration lantern with over 400 slides, a stereoscope with about a hundred views, Biological and Geographical Charts, Globes, Tellurium, Selenotrope, etc. For 1908, the Budget provides for a further grant of Rs. 1000 on the same head.

Concluding Remarks.

It will thus be seen that the work of the Council has made reasonable progress in several directions. The Committee venture to say that the good work done in 1906 was followed up in 1907. There are encouraging signs on all sides that the cause of National Education has struck an answering chord in the National mind, and that the efforts made by the National Council to organise the new type of Education which would incorporate with the best oriental ideals of life and thought the best assimilable ideals of the West and inspire students with a genuine love for and a real desire to serve their country, are being more and more widely appreciated.

The Committee earnestly hope that the sacred cause of National Education which they have been enabled to take in hand through the munificence of a small section of the landed aristocracy of the country and the personal sacrifice of a band of devoted workers, will now enlist the hearty sympathy and receive the active support of all sections of the community.

The National Council of Education, Bengal ;
166, Bowbazar Street, Calcutta.
1st February, 1908.

A. CHAUDHURI,
HIRENDRANATH DATTA,
Hony. Secretaries

APPENDICES.

APPEN
The National Council of
Statement of Receipts and Payments from

RECEIPTS.	Rs.	A.	P.	Rs.	A.	P.
To Balance on the 31st December, 1906 ...				8,395	8	3
I. Endowments :—						
Srijukta Brajendra Kishore Roy Chowdhury ...	20,000	0	0			
Maharaja Suryya Kanta Acharyya Bahadur						
for 1906 ... 5,000						
for 1907 ... 10,000 ...	15,000	0	0			
Srijukta Subodh Chandra Mallik						
Balance due for 1906 ... 1,976						
for 1907 ... 3,600 ...	5,576	0	0			
				40,576	0	0
II. Monthly Subscriptions :—						
Hon'ble Dr. Rashbehari Ghose ...	810	0	0			
Sir Gooroo Das Banerji, Kt. ...	600	0	0			
Ray Yatindra Nath Chowdhury ...	1,200	0	0			
A. Chaudhuri, Esq. ...	3,000	0	0			
B. Chakravarty, Esq. ...	3,000	0	0			
Srijukta Hirendra Nath Datta ...	3,000	0	0			
" Dhannulal Agarwala ...	300	0	0			
" Pannalal De ...	120	0	0			
Kaviraj Bejoyratna Sen ...	100	0	0			
				12,130	0	0
III. Donations :—						
Hon'ble Dr. Rashbehari Ghose ...	1,000	0	0			
Sir Gooroo Das Banerjee, Kt. ...	1,000	0	0			
Srijukta Brajendra Kishore Roy Chowdhury ...	1,000	0	0			
" Dwarkanath Chakravarty ...	1,000	0	0			
" Gopal Das Roy Chowdhury ...	500	0	0			
" Mohini Mohan Chatterjee ...	500	0	0			
" Kedar Nath Banerjee ...	500	0	0			
" Anath Bandhu Guha ...	100	0	0			
" Satis Chandra Mitra ...	50	0	0			
" Ramnarain Mukerjee ...	10	0	0			
Mr. Jetha Jechand ...	20	0	0			
Mrs. B. R. Cama ...	10	0	0			
Mr. Chandulal ...	3	0	0			
Mr. J. Sing ...	1	0	0			
Srima Nagendra Bala Guha ...	1	0	0			
Mr. A. P. Gupta ...	4	0	0			
Mr. M. Sing ...	1	0	0			
Small Donations received through						
B. Chatterjee, Esq. ...	627	13	0			
Swadesh Hitaishini Sabha ...	244	8	0			
Santan Sampraday, Bhowanipur						
(Balance of Rs. 1200 promised in 1906) ...	539	12	9			
				7,112	1	9
TOTAL CARRIED OVER ...				63,213	10	0

DIX A.
Education, Bengal.
1st January to 31st December, 1907.

PAYMENTS.	Rs.	A.	P.	Rs.	A.	P.
				3,612	11	0
I. House Rent ...				6,876	10	0
II. Grant-in-aid ...				19,210	4	0
III. Estbalishment ...						
IV. Physical Laboratory—	8,725	2	3			
Apparatus	469	12	0			
Furniture	101	5	9			
Charges	64	14	3			
Stores	19	12	3			
Fittings	792	2	9			
Scientific Workshop Tools and Machinery	119	9	3			
" " Stores	22	3	0			
" " Charges				10,314	13	6
V. Chemical Laboratory—	558	9	9			
Apparatus	282	15	6			
Furniture	948	9	3			
Fittings	320	5	9			
Stores	285	5	3			
Charges				2,395	13	6
VI. Biological Laboratory—	573	9	3			
Apparatus	97	10	0			
Stores	58	5	0			
Furniture	27	9	3			
Charges				757	1	6
VII. Technical Department—	3,020	2	6			
Tools and Machinery	1,535	2	0			
Stores	122	0	0			
Charges	29	12	6			
Furniture	1,811	15	3			
Workshop Construction				6,519	0	3
VIII. Library—	3,875	8	0			
Books and Maps &c.	60	8	0			
Charges				3,936	0	0
IX. General Furniture and Fittings—	1,066	11	0			
Furniture	538	12	0			
Fittings				605	7	0
X. Examination Expenses ...				1,380	11	9
XI. Scholarships and Stipends—	888	0	0			
Scholarships	1,054	0	0			
Stipends				1,942	0	0
TOTAL CARRIED OVER ...				58,550	3	6

APPENDIX
The National Council of
Statement of Receipts and Payments from

RECEIPTS.	Rs.	A.	P.	Rs.	A.	P.
BROUGHT FORWARD ...				68,213	10	0
IV. Sir Gooroo Das Banerjee for 2 medals ...				20	0	0
V. School Fees ...				3,977	10	6
VI. Examination Fees ...				1,120	13	3
VII. Miscellaneous Receipts—						
Sale of Articles Manufactured ...	14	10	0			
Sale of a Text-Book Published ...	86	11	0			
Sale of Waste-paper &c. ...	11	15	3			
Stamps received with letters ...	15	9	6			
Refund for books returned ...	10	0	0			
Refund for apparatus returned ...	1	10	9			
				140	8	6
VIII. Bank of Bengal, amount withdrawn						
Suspense ...	54,338	8	6			
Loan ...	2,794	11	6			
	2,910	0	0			
				60,043	4	0
TOTAL ...	...	...	...	1,33,515	14	3

We have examined the books and accounts of the National Council of
and found them correct.

CALCUTTA,
 15th February, 1908. }

I. C. BOSE,
 GAURI SANKAR DE,
Auditors.

DIX A.
Education, Bengal.

1st January to 31st December, 1807.

PAYMENTS.	Rs.	A.	P.	Rs.	A.	P.
BROUGHT FORWARD ...				58,550	8	6
XII. Paper and Printing ...				423	13	0
XIII. Physical Training Appliances ...				302	15	6
XIV. Publication of a Text Book ...				142	0	0
XV. Bank of Bengal						
Suspense ...	53,639	7	9			
Loan ...	4,584	7	9			
	2,910	0	0			
				61,133	15	6
XVI. Refund to Srijukta Brajendra Kishore Roy						
Chowdhury ...	147	0	0			
Refund of School Fees ...	8	0	0			
Refund of Examination Fees ...	6	2	0			
				161	2	0
XVII. Contingency				598	12	6
Miscellaneous ...				771	1	9
				1,22,084	4	9
By Balance (Cash in hand in Office) ...				11,431	9	6
TOTAL ...	...	...	...	1,33,515	14	3

Education, Bengal, comparing them with the relative returns and vouchers

A. CHAUDHURI,
 HIRENDRA NATH DATTA,
Secretaries.

APPENDIX

The National Council of

Statement of Assets and Liabilities

Balance Sheet as

LIABILITIES.

	Rs.	A.	P.	Rs.	A.	P.
Library account—						
N. C. Datta ...	Rs. 37	5	0			
R. Cambray ...	Rs. 21	8	0			
	58	13	0			
Technical Tools and Machinery Account—						
Messrs Marshall & Sons ...	Rs. 3,950	0	0			
Do. ...	1,030	0	0			
„ Martin & Co. ...	475	0	0	5,455	0	0
Technical Stores Account—						
Naffar Chandra Kolay ...	...	...	...	21	5	0
Paper and Printing Account—						
Wellington Printing Press ...	Rs. 45	0	0			
Sakha Press ...	Rs. 162	0	0	207	0	0
Rent Account—						
A. E. Gareh Esq. ...	Rs. 145	0	0			
J. T. Meade Esq. ...	265	0	0			
Municipal Tax ...	21	15	0	431	15	0
Chemical Furniture Account—						
Messrs Burn & Co. ...	Rs. 20	12	0			
Adhar Chandra Kundu ...	200	0	0			
Naffar Chandra Kolay ...	158	1	9	378	13	9
Physical Laboratory Apparatus Account—						
Messrs Ghosh Mitter & Co. ...	Rs. 117	5	9			
Alfred Young & Co. ...	214	1	0			
Mon. Ph. Pellin ...	532	3	3	863	10	0
Biological Laboratory Apparatus Account—						
Messrs Carl Zeiss ...	Rs. 219	13	9			
„ Grindlay & Co. ...	45	5	11			
Bengal Chemical & Pharmaceutical Works Limited ...	Rs. 140	0	0	405	3	8
Physical Laboratory Fittings Account—						
General stores & Lubricating Oil Supply Co. ...	...	...	...	33	8	0
Chemical Laboratory Stores Account—						
Bengal Chemical & Pharmaceutical Works Limited ...	...	...	...	289	10	0
Scholarship Account—						
Scholarships due for December, 1907 ...	...	...	...	103	0	0
Stipend Account—						
Stipends due for December, 1907 ...	...	...	...	114	0	0
Salary Account—						
Salary of the Staff for December, 1907 ...	...	...	...	1,864	12	0
TOTAL CARRIED OVER				10,226	10	5

DIX B.

Education, Bengal.

as on the 31st December, 1907.
on the 31st December, 1907.

	Rs.	A.	P.	Rs.	A.	P.
ASSETS.						
Technical Department :—						
Tools and Machinery ...	9,814	14	3			
Workshop ...	2,646	10	9			
Furniture ...	29	12	6	12,491	5	6
Physical Laboratory :—						
Apparatus ...	9,941	1	6			
Tools & Machinery (Scientific Workshop) ...	792	2	9			
Furniture ...	Rs. 469	12	0			
Depreciation @ 5% ...	Rs. 23	8	0	446	4	0
				11,179	8	3
Chemical Laboratory :—						
Apparatus ...	1,638	3	7			
Stores ...	716	15	9			
Furniture ...	Rs. 1,004	13	8			
Depreciation @ 5% ...	Rs. 50	4	0	954	9	3
				3,309	12	7
Biological Laboratory :—						
Apparatus ...	978	12	11			
Stores ...	97	10	0			
Furniture ...	Rs. 58	5	0			
Depreciation @ 5% ...	Rs. 2	14	6	55	6	6
				1,131	13	5
Library						
Depreciation @ 5% ...	Rs. 5,723	6	3			
	Rs. 286	2	6	5,437	3	9
Furniture						
Depreciation @ 5% ...	Rs. 3,897	15	0			
	Rs. 194	14	6	3,703	0	6
Miscellaneous Account :—						
Commercial Requisites ...	Rs. 850	0	0			
Depreciation @ 5% ...	Rs. 42	8	0	807	8	0
Drawing Requisites ...	Rs. 138	4	0			
Depreciation @ 5% ...	Rs. 6	14	6	131	5	0
				938	13	6
Physical Training Appliances						
Text Books published 777 Copies. ...	...	...	...	339	0	3
Articles Manufactured :—						
Technical Department ...	1,329	14	0			
Scientific Workshop ...	553	0	0	2,079	14	0
TOTAL CARRIED OVER				40,670	7	9

APPEN
The National Council of
Statement of Assets and Liabilities
Balance Sheet as on

LIABILITIES.	Rs.	A.	P.	Rs.	A.	P.
BROUGHT FORWARD ...				10,226	10	5
Grant-in-aid Account—						
Grant-in-aid due to Secretary, National School, Kishorgunge for October, 1907 ...	Rs. 75	0	0			
Grant-in-aid due to all schools for November and December ...	Rs. 1,430	0	0			
Money Order Commission ...	13	12	0			
Technical Workshop Account—				1,518	12	0
Rakhal Das Tewari ...	Rs. 292	4	0			
Basir Mistry ...	336	3	6			
Abinash Chandra Chatterjee ...	206	4	0			
General Fittings Account—				834	11	6
Messrs Kilburn & Co. ...	Rs. 370	0	0			
Oriental Gas Co. ...	950	8	0			
Manick Lal Mullick ...	300	0	0			
Examination Account—				1,620	8	0
Wellington Printing Press ...				28	2	6
D. Waldie & Co. for one Balance ...				80	0	0
To Balance ...				4,082	2	0
				57,322	12	3
TOTAL ...				71,631	8	8

We have Examined the Books and Accounts of the National Council of The above Statement of Assets and Liabilities (Balance Sheet) has also been exhibiting a true and correct view of the Council's affairs as on the 31st formity with the law.

CALCUTTA,
 15th February, 1908.

I. C. BOSE,
 GAURI SANKAR DE,
 Auditors.

DIX B.*Education, Bengal.*

as on the 31st December, 1907.

the 31st December, 1907.

ASSETS.	Rs.	A.	P.	Rs.	A.	P.
BROUGHT FORWARD ...				40,610	7	9
EXPECTED REALISATIONS ON ACCOUNT OF 1907.						
Mr. A. Chaudhuri for two Scholarships ...				425	0	0
Promised Donations in 1907 not realised :—						
1. Sreejukta Saganendra Nath Tagore ...	5,000	0	0			
2. Maharaja Sir Jatindra Mohan Tagore ...	1,500	0	0			
3. Maharaja Suryya Kanta Acharyya Bahadur ...	1,000	0	0			
4. Ray Jogendra Kishore Chowdhury ...	1,000	0	0			
5. Ray Yatindra Nath Chowdhury ...	1,000	0	0			
6. Rani Kusum Kamini Devi ...	1,000	0	0			
7. Kumar Sarat Kumar Ray ...	1,000	0	0			
8. S. N. Tagore, Esq. ...	1,000	0	0			
9. Sreejukta H. Bose ...	1,000	0	0			
10. Sreejukta Nirode Chandra Mallik ...	1,000	0	0			
11. A. Chaudhuri, Esq. ...	1,000	0	0			
12. Sreejukta Hirendra Nath Datta ...	1,000	0	0			
13. Kaviraj Bejoy Ratna Sen ...	1,000	0	0			
14. Sreejukta Gopal Das Chowdhury ...	900	0	0			
15. „ Sarada Charan Guha ...	500	0	0			
By Cash :—				18,900	0	0
Deposited in the Bank of Bengal ...	264	7	5			
In hand (in office) ...	11,431	9	6			
				11,696	0	11
TOTAL ...				71,631	8	8

Education, Bengal, Comparing them with the relative Returns and Vouchers. examined by us and in our opinion, it is a full and fair Balance Sheet, December, 1907, and it is drawn as near as circumstances admit, in con-

A. CHAUDHURI,
 HIRENDRA NATH DATTA

Secretaries.

APPENDIX C.

BUDGET FOR 1908.

Expected Receipts.

I. Income from Endowments :—

1. Sreejuka Brajendra Kishore Ray Chowdhury	Rs.	20,000	0	0
2. Maharaja Suryya Kanta Acharyya Bahadur...	Rs.	10,000	0	0
3. Sreejuka Subodh Chandra Mallik.	Rs.	3,600	0	0

II. Monthly Subscriptions (in 12 months) :—

1. Dr. Rashebhari Ghose	Rs.	1,620	0	0
2. Maharaja Manindra Chandra Nundi Bahadoor	Rs.	2,000	0	0
3. Sir Gooroodas Banerjee Kt.	Rs.	600	0	0
4. Ray Yatindra Nath Chowdhury	Rs.	1,200	0	0
5. B. Chackerbutty Esq., Bar-at-Law	Rs.	3,000	0	0
6. A. Chaudhuri Esq., Bar-at-Law	Rs.	3,000	0	0
7. Sreejuka Hirendra Nath Datta	Rs.	3,000	0	0
8. Sreejuka Dhannu Lall Agarwalla	Rs.	300	0	0
9. Sreejuka Panna Lall Dey	Rs.	120	0	0

Rs. 33,600 0 0

III. Tuition Fees :—

Rs. 6,000 0 0

IV. Examination Fees :—

Rs. 2,000 0 0

V. Mr. A. Chaudhuri Esq., for a scholarship :—

Rs. 425-0-0 (for 1907) + Rs. 175-0-0 (for 1908) = Rs. 600 0 0

VI. Sale proceeds of articles manufactured in the Laboratories and the Technical Department :—

Rs. 12,000 0 0

VII. Deposit in the Bank of Bengal on the 31st December, 1907 :—

Rs. 264 7 5

VIII. Cash in hand on the same date :—

Rs. 11,431 9 6

XI. Promised Donations in 1907 not realised on the 31st December, 1907 :—

Rs. 32,296 0 11

1. Sreejuka Gaganendra Nath Tagore	Rs.	5,000	0	0
2. Maharaja Sir Jatindra Mohan Tagore	Rs.	1,500	0	0
3. Maharaja Suryya Kanta Acharyya Bahadur	Rs.	1,000	0	0
4. Ray Jogendra Kishore Chowdhury	Rs.	1,000	0	0
5. Ray Yatindra Nath Chowdhury	Rs.	1,000	0	0
6. Rani Kusum Kamini Devi	Rs.	1,000	0	0
7. Kumar Sarat Kumar Ray	Rs.	1,000	0	0
8. S. N. Tagore, Esq.	Rs.	1,000	0	0
9. Sreejuka H. Bose	Rs.	1,000	0	0
10. Sreejuka Nirode Chandra Mallik	Rs.	1,000	0	0
11. A. Chaudhuri, Esq.	Rs.	1,000	0	0
12. Sreejuka Hirendra Nath Datta	Rs.	1,000	0	0
13. Kaviraj Bejoy Ratna Sen	Rs.	1,000	0	0
14. Sreejuka Gopal Das Chowdhury	Rs.	900	0	0
15. Sreejuka Sarada Charan Guha	Rs.	500	0	0

TOTAL

Rs. 18,900 0 0

Rs. 26,000 0 0

Rs. 1,25,636 0 11

EXPECTED DISBURSEMENTS.

I. House rent

Rs. 5,500

II. Establishment (in 12 months) — (Details per month given below)

Rs. 37,608

Rs.

A. Literary—

1. Principal	Honorary.	
2. Lecturer in History and Political Science	150	
3. Do. do. and Economics	100	
4. Do. do. and English	100	
5. Do. do. and Geography	100	
6. Do. History	70	
7. Do. Western Philosophy	70	
8. Do. Eastern Philosophy and Sanskrit	Honorary.	
9. Do. Do. and Do.	50	
10. Do. Do. and Do.	40	
11. Do. Do. and Do.	40	
12. Do. English (allowance)	30	
13. Do. Bengali	Honorary.	
14. Do. Bengali	25	
15. Do. Pali	35	
16. Do. Persian	30	
17. Do. Hindi	30	
18. Do. Marathi	30	
19. Teacher in Primary classes	25	
	925	

B. Scientific—

1. Lecturer in Mathematics	80	
2. Do. Mathematics	60	
3. Do. Mathematics	60	
4. Do. Physics	100	
5. Do. Chemistry	80	
6. Do. Chemistry (Honorary)		
7. Do. Physics and Chemistry	80	
8. Asst. Lecturer in Do.	40	
9. Lecturer in Biology	50	
10. Teacher in Drawing	35	
11. Laboratory Assistants—		
(a) Physics	20	
(b) Chemistry	40	
(c) Biology	20	
12. Workshop—		
(a) Mechanic (Permanent)	30	
(b) Carpenter	20	
(c) Mechanic (Temporary)	35	
13. Bearers—		
(a) Physical Laboratory	10	
(b) Chemical	20	
(c) Biological	10	
	790	

CARRIED OVER Rs. 1,715

BROUGHT OVER

1,715

C. Technical Department—

(a) PERMANENT STAFF—		
1. Superintendent	120	
2. Electrical and Mechanical Engineer	80	
3. Mechanical Engineer	50	
4. Fitter	30	
5. Smith	25	
6. Carpenter	30	
7. Cardboard Instructor	20	
8. Wickerwork	20	
9. Engine Driver	30	
10. Cooly for the machine-shop	8	
11. Hammer-man	10	
12. One moulder (Brass Foundry)	25	
13. Moulder (Iron Foundry)	30	
14. Cupola-man	15	
15. Turner	25	
16. Machineman	30	
17. Durwan	12	
18. Cooly for the machine shop	8	
	568	

(b) MANUFACTURING DEPARTMENT—

Temporary Staff—		
4 Fitters	80	
2 Carpenters	50	
4 Smiths	40	
2 Moulders (Iron Foundry)	40	
1 Fireman	25	
2 Turners	40	
4 Machinemen	100	
	375	

D. Commercial Department—

Shorthand	Honorary.	
Book-keeping	30	
Type-writing	25	
	55	

E. General—(Office, Library &c.)—

1. Assistant Secretary	60	
2. Assistant Superintendent	60	
3. Inspector of Mofussil schools	60	
4. Assistant to Principal	25	
5. Librarian	35	
6. Head Clerk	25	
7. Storekeeper	25	
8. Menial Staff—		
Durwan	12	
Duftry	12	
Night Watchman	12	
Bearer	8	
Sweeper	12	
Visti	8	
	386	

F. Travelling allowance to Honorary Lecturers

35

TOTAL per month 3,134

CARRIED OVER 43,108

EXPECTED DISBURSEMENTS.—(Contd.)

				BROUGHT OVER	Rs.
III.—Apparatus, tools, machinery and other appliances:—				...	43,108
A. PHYSICAL SCIENCE—					
(a) Laboratory—					
Apparatus	...	...	...	Rs.	
Working Expenses	...	...	...	4,000	
				150	
(b) Workshop—					
Tools and Fittings	...	...	...	1,500	
Stores	...	...	...	750	
B. CHEMICAL LABORATORY—					
Apparatus...	...	...	...	1,500	
Stores and working expenses	...	...	...	1,500	
C. BIOLOGICAL LABORATORY				...	1,500
D. TECHNICAL DEPARTMENT—					
Tools and Machinery	...	...	...	5,000	
Stores	...	...	...	6,000	
E. SCHOOL APPLIANCES				...	1,000
F. LIBRARY				...	2,000
					24,900
IV. Religious Education				...	2,000
V. Physical Education				...	600
VI. Scholarships and Stipends				...	3,600
VII. Examination Expenses				...	2,000
VIII. Furniture and Fittings—					
(a) General (Library, Office, Classes &c.)	...	...	...	1,000	
(b) Gas, Electric and other Fittings	...	...	...	1,000	
(c) Physical Laboratory	...	...	...	200	
(d) Chemical	...	...	...	1,000	
					3,200
IX. Workshop and other Constructions				...	3,500
X. Grant-in-aid				...	12,000
XI. Contingencies—					
(a) Printing and paper	...	...	...	1,000	
(b) Postage and Telegrams	...	...	...	300	
(c) Light (Gas and Electricity)	...	...	...	400	
(d) Travelling	...	...	...	500	
					2,200
XII. Miscellaneous (including Petty Charges)				...	1,000
					Rs. 98,108

CARRIED OVER

EXPECTED DISBURSEMENTS.—(Contd.)

				BROUGHT OVER	Rs.	A.	P.
				...	98,108	0	0
XIII. Outstanding—							
A. Bills unpaid—							
				Rs.	A.	P.	
1. House rent	...	...	...	431	15	0	
2. Establishment—Salaries for December	...	...	...	1,864	12	0	
3. Physical Laboratory	...	...	...	863	10	0	
4. Chemical Laboratory	...	...	...	369	10	0	
5. Biological Laboratory	...	...	...	405	3	8	
6. Technical Department	...	...	...	5,476	5	0	
7. Library	...	...	...	58	13	0	
8. Scholarships and stipends	...	...	...	217	0	0	
9. Furniture and Fittings—							
(a) Physical Laboratory	...	...	...	33	8	0	
(b) Electricity, Gas and other fittings	...	...	...	1,620	8	0	
(c) Chemical Laboratory	...	...	...	378	13	9	
11. Workshop construction	...	...	...	834	11	6	
12. Grants-in-aid	...	...	...	1,518	12	0	
13. Printing and Paper	...	...	...	207	0	0	
14. Examination Expenses	...	...	...	28	2	6	
					14,308	12	5
B. Apparatus, Machinery &c., ordered but bills not received:—							
1. Physical Science—							
(a) Laboratory apparatus	...	...	...	1992	0	0	
(b) Scientific Workshop—							
Tools and Machinery	...	...	...	700	0	0	
2. Chemical Laboratory apparatus	...	...	...	2045	0	0	
3. Biological Laboratory	...	...	...	816	0	0	
4. Technical Department—							
Tools and Machinery	...	...	...	3840	0	0	
5. School Appliances...	...	...	...	1000	0	0	
6. Furniture—							
(a) General	...	...	...	430	0	0	
(b) Physical Laboratory	...	...	...	500	0	0	
(c) Chemical	...	...	...	824	0	0	
7. Printing and Paper for Calendar &c.	...	...	...	1,000	0	0	
					27,455	12	5
					13,147	0	0
TOTAL					25,563	12	5

APPENDIX D.

The Number of Students on the Rolls on the
31st December, 1907.

I. Lower School Department :—

(Up to the Matriculation Standard.)

A. PRIMARY COURSE :—

(1) First year class	...	...	...	22 students
(2) Second year class	...	...	...	23 "
(3) Third year class	...	...	...	19 "

B. SECONDARY COURSE :—

(1) First year class	...	...	...	25 students
(2) Second year class	...	...	...	19 "
(3) Third year class	...	...	...	6 "
(4) Fourth year class	...	...	...	5 "
(5) Fifth year class	...	...	...	6 "

II. Higher School Department :—

(Corresponding to the F. A. or Intermediate Course Classes of the Indian Universities.)

(1) Sixth year class	...	...	...	26 students
(2) Seventh year class	...	...	...	72 "

III. College Department

(Corresponding to B. A. and M. A. Classes.)

IV. Technical Department

V. Commercial Class

...	...	...	23 "
...	...	...	13 "

TOTAL ... 270 Students

Scholarship and Stipend-holders and Free Students.

I. Scholarship-holders.

1. Sreeman Jatindra Krishna Bhaduri (Chaudhuri Scholarship)	...	College Class	...	Rs. 15
2. " Adityanath Maitra (Transferred Scholarship)	...	Do.	...	Rs. 15
3. " Jatindra Nath Seth (Transferred Scholarship Chaudhuri)	...	7th Year Class	...	Rs. 12
4. " Bejoy Kumar Sirkar (also free student) (Transferred Scholarship)	...	7th Year Class	...	Rs. 10
5. " Manoranjan Bhattacharyya (Do.) (Do.)	...	Do.	...	Rs. 8
6. " Narendra Nath Sen Gupta (also free-student) (Council Scholarship)	...	6th Year Class	...	Rs. 10
7. " Dharendra Kumar Sarkar (Transferred Scholarship)	...	Do.	...	Rs. 15
" Harendra Chandra Pal (also free student) (Transferred Scholarship)	...	Do.	...	Rs. 10

II. Stipend-holders (also free students.)

1. Sreeman Jagat Chandra Pal	...	College Class	...	Rs. 8
2. " Beni Madhub Kundu	...	Do.	...	Rs. 8
3. " Kunjalal Sen Gupta	...	Do.	...	Rs. 8
4. " Jatindra Mohan Chattopadhyaya	...	7th Year Class	...	Rs. 8
5. " Manu Mohan Ghose	...	Do.	...	Rs. 8
6. " Bishweswar Ray	...	Do.	...	Rs. 8
7. " Mukunda Chandra Ray	...	Do.	...	Rs. 8
8. " Nabin Chandra Lodh	...	Do.	...	Rs. 6
9. " Mohini Mohan Das Haldar	...	Do.	...	Rs. 6
10. " Nalini Kanta Roy (Ramtana Lahiri Scholarship-holder)	...	Do.	...	Rs. 6
11. " Jnanada Chandra Das Gupta (Do. Do.)	...	Do.	...	Rs. 6
12. " Kula Chandra Singha Ray	...	6th Year Class	...	Rs. 8
13. " Sasi Kumar Das Gupta	...	Do.	...	Rs. 8
14. " Durga Sankar Bhattacharyya	...	Do.	...	Rs. 8
15. " Govind Ramchandra Phadke	...	Do.	...	Rs. 8

II. Free Students.

(Who are not Scholarship or Stipend-holders)

1. Sreeman Birendra Nath Gupta	...	7th year Class.
2. " Debendra Kumar Chowdhury	...	"
3. " Pravas Chandra Datta	...	"
4. " Jamini Kanta Guha	...	"
5. " Promode Behari Bose	...	"
6. " Abinash Chandra Sen Gupta	...	"
7. " Saradananda Bhattacharyya	...	"
8. " Jogesh Chandra Chakravarty	...	6th year Class.
9. " Jahar Lal Seth	...	"
10. " Dwijendra Lal Chakravarty	...	"
11. " Hari Prasad Guha Ray	...	"
12. " Nishi Kanta Chakravarty	...	Technical Department.
13. " Jogesh Chandra Chakravarty	...	"
14. " Narendra Nath Das	...	"
16. " Jyoti Nath Bandyopadhyaya	...	2nd Year Secondary.

APPENDIX E.

List of Articles, Implements, Apparatus &c., turned out during 1907 in the Workshops and Laboratories of the Bengal National College.

Serial No.	Name and description of Apparatus.	Use.	Market Price.		Cost Price.	
			Rs.	A. P.	Rs.	A. P.
1.	6 Model Verniers	... Physical Deptt.	18	0 0	14	0 0
2.	6 Beam Compasses	"	6	0 0	4	0 0
3.	Inclined plane with a pair of wheels and axle to show stable equilibrium	"	3	0 0	2	8 0
4.	Apparatus to shew stable equilibrium	"	0	8 0	0	8 0
5.	Do. of brass and of different pattern	"	unfinished.			
6.	One set of six wooden laminae	"	2	0 0	1	8 0
7.	Suspension and knife-edge of long pendulum	"	5	0 0	4	0 0
8.	Bracket for suspending above	"	1	4 0	1	0 0
9.	Hare's apparatus	"	2	8 0	1	0 0
10.	6 Drawing boards	"	9	0 0	3	0 0
11.	1 Physical Balance	"	30	0 0	15	0 0
12.	7 " Balances	"	unfinished			
13.	3 Balance cases 18" / 12" / 15"	"	40	0 0	25	0 0
14.	1 " " 27" / 12" / 33"	"	25	0 0	18	0 0
15.	4 Brackets for balances	"	10	0 0	8	0 0
16.	Thompson's wave apparatus	"	75	0 0	20	0 0
17.	Harmonograph	"	75	0 0	20	0 0
18.	Blackburn's pendulum	"	8	0 0	6	0 0
19.	Sonomet 1 meter long	"	20	0 0	16	0 0
20.	" 50 c. m. long	"	15	0 0	12	0 0
21.	Apparatus for demonstrating expansion by heat	"	8	0 0	5	0 0
22.	" for demonstrating the expansion by heat of rods of different materials	"	unfinished.			

Serial No.	Name and description of Apparatus.	Use.	Market Price.		Cost Price.	
			Rs.	A. P.	Rs.	A. P.
23.	Steam jacket for heating rods of different materials to find their co-efficient of linear expansion ...	Physical Deptt.	15	0 0	15	0 0
24.	Pin-hole camera with two slides to demonstrate rectilinear propagation of light	"	12	0 0	8	0 0
25.	1 Wooden model of a uniaxial crystal of the rhombohedron system	"	1	0 0	0	8 0
26.	2 Wooden models of quartz one left-handed and the other right-handed	"	3	0 0	1	0 0
27.	3 brass models of wave surfaces in crystals	"	12	0 0	8	0 0
28.	3 sectional models shewing the ordinary and extraordinary wave fronts	"	12	0 0	8	0 0
29.	3 scales on glass divided in millimeters	"	4	8 0	0	2 0
30.	2 Micrometer scales	"	2	0 0	0	2 0
31.	3 Diffraction gratings	"	12	0 0	0	3 0
32.	3 Insulating stands for pith balls	"	3	0 0	1	0 0
33.	2 Spherical conductors on insulating stands	"	4	0 0	1	0 0
34.	1 Cylindrical conductor on an insulating stand	"	2	0 0	0	8 0
35.	1 Torpedo-shaped conductor on an insulating stand	"	2	0 0	0	8 0
36.	2 Brass scales graduated in m. m. and in $\frac{1}{16}$ inch	"	1	8 0	0	1 0
37.	2 " in millimeters	"	1	0 0	0	1 0
38.	1 " in $\frac{1}{16}$ inch only	"	0	8 0	0	1 6
39.	1 Apparatus for demonstrating the changes of values and signs of trigonometrical ratios as the angle increases from 0 to 360°	Mathematical	8	0 0	1	0 0
40.	Brass attachment to bellows for Siren	Physical	3	0 0	1	8 0
41.	Brass attachment to a reading microscope	"	4	0 0	1	8 0

Serial No.	Name and description of Apparatus.	Use.	Market Price.			Cost Price.		
			Rs.	A.	P.	Rs.	A.	P.
42.	Gravesend's ball and ring apparatus	Physical						
43.	Electrical attachment to metronome	"						
34.	Tube for the preparation of oxygen from red oxide of mercury	Chemical	2	0	0	1	0	0
45.	Boiling test tubes	"	0	2	0	0	1	6
46.	Bulb tubes and V tubes	"	2	8	0	2	0	0
47.	Chemical balance for weighing chemicals	"	0	2	0	0	1	6
48.	Paper-wheel with stand for demonstrating weight of hydrogen and carbon dioxide	"	20	0	0	5	8	0
49.	Lamp with a syphon arrangement...	"	1	8	0	0	8	0
50.	Test tube stands with 11 holes	"	1	4	0	0	8	0
51.	Ditto ditto 12 holes	"	1	4	0	0	8	0
52.	Ditto ditto 6 holes	"	1	4	0	0	10	0
53.	Potash carbonate (crude) prepared from plantain leaves	"	0	12	0	0	6	0
54.	Crystals of alum	"	0	5	0	0	1	6
55.	Zinc sulphate crystal	"	0	4	0	0	2	0
56.	Spirit of Salammoniac	"	0	4	0	0	3	0
57.	Caustic Soda Sol.	"	0	8	0	0	3	0
58.	Potash Solution	"	0	2	0	0	1	0
59.	Caustic potash in solution	"	0	2	0	0	1	0
60.	Nitric Acid	"	0	3	0	0	2	0
61.	Hydrochloric acid	"	0	9	0	0	6	0
62.	Silicic acid	"	0	3	6	0	2	0
63.	Brass candle stands with sticks and spring complete	"	1	8	0	1	0	0
64.	Brass large ornamental candle stand	For sale	2	10	0	2	4	0
65.	Do. small ditto ditto	"	4	0	0	3	0	0
66.	Brass ink-stand with horn supporter	Office use	3	0	0	2	8	0
67.	Chapra circular pattern	"	5	0	0	3	8	0
68.	" heart shaped	"	2	0	0	1	0	0
69.	Brass circular workshop tickets	For workshop	2	0	0	1	0	0
70.	" ornamental pedestal	"	1	0	0	0	8	0
71.	" screw for retort ring	"	0	3	0	0	2	0
72.	" Beaker holder	Chemical Deptt.	0	4	0	0	3	0
73.	Brass model of pulley blocks	"	1	12	0	0	10	0
74.	" " small	For workshop	4	0	0	3	0	0
		"	3	8	0	2	8	0

Serial No.	Name and description of Apparatus.	Use.	Market Price.			Cost Price.		
			Rs.	A.	P.	Rs.	A.	P.
		Workshop	3	0	0	2	0	0
75.	1 Brass marking block	For drawing	1	4	0	1	0	0
76.	2 Brass Beam compasses	Chemical Labo.	12	0	0	8	0	0
77.	1 doz. test tube holders	"	9	0	0	6	0	0
78.	" " "	"						
79.	Brass retort rings with screw clamps complete three sizes	"	12	0	0	8	0	0
80.	Brass retort rings without screws three sizes	"	1	8	0	0	12	0
81.	Brass Altaraf two sizes	"	1	12	0	1	0	0
82.	" small stands	"	1	0	0	0	12	0
83.	" plain rings	"	0	4	0	0	2	0
84.	A brass tumbler fresh from the mould unfinished	"	1	0	0	0	12	0
85.	A brass retort ring fresh from the mould unfinished	"	1	0	0	0	12	0
86.	Brass letters—"National College Bengal"	For College work	5	0	0	4	0	0
87.	Brass vibrating plates circular and square	Physical Labo.	4	0	0	3	0	0
88.	Model of a Steam Engine	"	5	0	0	4	0	0
89.	Iron retort stands	Chemical	1	8	0	1	0	0
90.	2 sets of moulding instruments	Workshop	30	0	0	25	0	0
91.	Tripod stands	Chemi. Labo.	0	12	0	0	8	0
92.	Iron supporter for benches	"	0	12	0	0	8	0
93.	" legs of benches	"	2	0	0	1	8	0
94.	" a set of 3 garden tools	"	3	0	0	2	8	0
95.	" supporter for jhilmils	"	0	12	0	0	6	0
96.	" rings with eye hook	"	0	4	0	0	2	0
97.	" eye hook	"	0	2	0	0	1	6
98.	5 Iron borers	"	0	5	0	0	3	0
99.	5 " chisels	"	0	6	0	0	4	0
100.	Iron turning tools of lathes	"	0	4	0	0	2	0
101.	" anvils	"	0	6	0	0	4	0
102.	" hammers	"	0	12	0	0	8	0
103.	" tongs	"	0	3	0	0	2	0
104.	" hooks	"	0	4	0	0	3	0
105.	" bars	Physical Labo.	2	0	0	0	14	0
106.	2 Iron tuning forks	For sale	2	0	0	1	0	0
107.	" half finished long knives	"						

Serial No.	Name and description of Apparatus.	Use.	Market Price. Rs. A. P.	Cost Price. Rs. A. P.
108.	Table knives	For sale	0 14 0	0 11 0
109.	Iron knives	"	0 12 0	" 0 8 0
110.	" outside callipers	"	0 6 0	" 0 4 0
111.	" inside callipers	"	0 6 0	" 0 4 0
112.	Steel square	"	1 4 0	1 0 0
113.	Table	"	4 0 0	2 0 0
114.	1 Ornamental Office Almirah	For office	15 0 0	10 0 0
115.	1 Wooden model of a bungalow	"	2 0 0	1 0 0
116.	Picture frames	For sale	0 2 0	0 1 6
117.	Drawing board	"	3 8 0	2 2 0
118.	Ink stand	"	2 0 0	1 0 0
119.	T. Squares	"	1 0 0	0 12 0
120.	Set Squares	"	0 14 0	0 8 0
121.	Brackets	"	0 8 0	0 4 0
122.	Compass half finished	"	0 12 0	0 8 0
123.	Pattern for moulding	Drawing	0 10 0	0 6 0
124.	Box	Workshop	0 6 0	0 4 0
125.	Ornamental wood work	"	0 8 0	0 6 0
126.	Telegraphic Instrument	"	0 12 0	0 4 0
127.	Card board models	"	0 4 0	0 2 0
128.	" boxes	For drawing	0 4 0	0 4 0
129.	Cryophorus	For Medicine cases		
130.	Apparatus for research work in higher Optics: Constructed in France after the design of the Lecturer in Physics of this College	Chemi. Labo. For Research work		

£ 18

APPENDIX F.

(True copy of a letter from Sir Charles Allen, Kt., Chairman of the Municipal Corporation of Calcutta, to Sir Gooroo Das Banerjee, Kt, M.A., D.L., Ph. D., Member, Executive Committee).

25, CAMAC STREET, CALCUTTA.
Jan. 29, -08.

MY DEAR SIR GURUDAS.

I am very sorry to have missed you yesterday at the National College, and had no idea you were to be there, moreover, had I anticipated that there was so much of interest to see there, I should have gone there earlier, in any case.

I am very glad to have had an opportunity of seeing the institution, for I had no idea it was on such an important scale, or that it had made so excellent a start. What I saw was sufficient to show me that your countrymen have a special gift for applied science and I sincerely hope that the young men trained at the College may succeed in carving out useful careers for themselves. I should think a beginning might be made for them in the great railway workshops, such as Jamalpur, and I hope they will get a fair start there. If I get any opportunity of assisting them to get employment there, or elsewhere, I shall always be glad to do what I can.

Yours sincerely,
(Sd.) C. ALLEN.

(True Copy of a letter from Mr. Paul Bruhl, M.I.E.E., F.G.S., F.C.S., Professor, Civil Engineering College, Sibpur, Bengal to the Hony. Principal, Bengal National College and School.)

Sibpur, the 22nd of January, 1908.

TO THE HONY. PRINCIPAL,
BENGAL NATIONAL COLLEGE,
CALCUTTA.

DEAR SIR,

Having been present at the inauguration ceremony of the National Council of Education of Bengal, I was very pleased, when I received your invitation to visit the exhibition of articles manufactured in your College during the session

of 1906 to 1907. I hope to see more of your institution in the near future and confine myself for the present to a statement of the impression which my visit has produced in me.

I was particularly struck by the care which had been bestowed on the work. In the articles which come from a native source one very often observes a want of finish and want of symmetry in design and execution: but the articles exhibited by you were not only of solid construction, but they showed, in general, that finish which is proper to all first-class work. Some of the models indicated the exercise of great care and patience.

As your college develops, I trust it will be found possible to increase your technical staff by the addition of a skilled glass-blower and a mechanic who is acquainted with the detailed methods and processes of modern fine mechanics. You will also be able then to introduce into your workshops the various special machine tools and measuring appliances the use of which gives German and American instrument-makers the degree of excellence which is such a distinguishing character of their products.

If you persevere in the work which you have commenced with such marked success, you cannot help becoming an important factor in the industrial development and regeneration of your great country.

Believe me to be,

Dear Sir,

Yours very truly,

(Sd.) PAUL BRUHL.

(Remarks made by the Secretaries and Attaches to the Imperial Chinese Commissioner).

We have been very much delighted in having the opportunity of visiting the National (Industrial) College of Bengal.

We are surprised to see the extraordinary progress in the course of one year, and we admire and congratulate upon the excellent function in which you have endeavoured your efforts with success.

The future hope of our Asiatics is solely based upon the progress of the immense number of Indians, with whose strong bodies and minds we are looking forward for the welfare of our continent.

We all have the reason in thanking you for your much kindness, courtesy and liberality in showing us all around the college today.

Yours very sincerely,

HO TSAO-hSIANG,

*1st Secretary to H. E. Chang Nin-tang,
Imp. Chinese High Commissioner
to Tibet and India.*

YEN TING-tSO,

2nd Secretary.

HO SHIH CHIN,

Attaché.

CHANG CHUN HUA,

Attaché.

DR. J. S. CHI'IAN,

Medical in charge of Imp. Chinese Mission.

K. CHOO,

Private Secretary.

25. 1. 08.

APPENDIX G.

In the matter of Act XXI of 1860 of the Acts of the
Viceroy and Governor-General of India in Council
being an Act for the registration of Literary,
Scientific and Charitable Societies

AND IN THE MATTER OF

THE NATIONAL COUNCIL OF EDUCATION, BENGAL.
MEMORANDUM OF ASSOCIATION.

1. The name of the Association is the National Council of Education, Bengal, or Banga-deshastha Jatiya Siksha Parishat.

2. The objects of the Association are :—

(a) To impart and promote the imparting of Education—Literary and Scientific, as well as Technical and Professional—on National lines and exclusively under National control—not in opposition to, but standing apart from, the existing systems of Primary, Secondary and Collegiate Education—attaching special importance to a knowledge of the Country, its Literature, History and Philosophy, and designed to incorporate with the best Oriental ideals of life and thought, the best assimilable ideals of the West and to inspire students with a genuine love for, and a real desire to serve, the country.

(b) To promote and encourage the study chiefly of such branches of the Arts, Sciences, Industries and Commerce as are best calculated to develop the material resources of the country and to satisfy its pressing wants, including in Scientific Education generally a knowledge of the scientific truths embodied in Oriental Learning and in Medical Education specially, a knowledge of such scientific truths as are to be found in the Ayurvedic and Hakimi systems.

(c) To promote moral and physical education.

(d) To provide for denominational religious education out of funds specifically contributed for that purpose : Such education, however, is not to include the enforcement of religious rites and practices. It is to be presumed that Hindus, Mahomedans, Christians, Brahmos and members of other religious bodies desire that their wards should receive religious education in their respective creeds unless the guardians of such wards express a contrary intention.

(e) To create and maintain a high standard of proficiency and to enforce strict discipline (including the paying of proper regard to the religious sentiments and customs of the different sections of the community),—in accordance with the best traditions of the country.

(f) To impart and to facilitate the imparting of education ordinarily through the medium of the vernacular languages such as Bengalee, Hindi, Urdu, &c., English being a compulsory second language.

(g) To establish in Calcutta and elsewhere schools, primary and secondary, as well as colleges and other educational institutions for the imparting of such education.

(h) To affiliate, admit, recognise or otherwise utilise schools, colleges, tols, madrassas and other educational and research institutions for the imparting of such education.

(i) To prepare and encourage the preparation of suitable text-books especially in the vernaculars, in Arts, Sciences, and Technical and Professional subjects.

(j) To found and maintain professorships, lectureships, scholarships and fellowships for the encouragement of learning and research.

(k) To create and maintain a high standard of qualification, intellectual as well as moral, in teachers, by providing, where necessary, advanced instruction in all subjects included in a liberal education, by supplying a training in the principles and practice of educational methods, and by instituting examinations for testing such qualification and granting certificates to successful candidates.

(l) To establish and maintain and affiliate, admit, or recognise hospitals, workshops, laboratories, libraries, museums, art-galleries and other institutions conducive to the objects of the Association.

(m) To establish, maintain and control suitable boarding-houses and residences for students prosecuting their studies in institutions connected with the Association.

(n) To provide for examination of students prosecuting their studies in institutions connected with the Association, to award certificates to successful students, to award prizes, stipends and scholarships for enabling them to prosecute further studies either in institutions connected with the Association or other educational institutions in India, or elsewhere.

(o) To confer titles, diplomas and other marks of honor on any person who by reason of eminent position and attainments may be deemed a fit and proper person to receive the same, and to grant certificates and diplomas to, and confer degrees, titles, distinctions and other marks of honor on students who pass the requisite tests.

(p) To print and publish any journals, periodicals, books or leaflets that the Association may think desirable for the promotion of its objects.

(q) To carry on any other work which may seem to the Association capable of being conveniently carried on in connection with the above or calculated directly or indirectly to enhance the value of or render profitable any of the Association's property or rights.

(r) To purchase, take on lease or in exchange, hire or otherwise acquire property movable or immovable and any rights or privileges which may be deemed necessary or convenient for the purposes of the Association and in particular any lands, buildings, and easements, and to improve, develop, manage, sell, lease, mortgage, dispose of, turn to account or otherwise deal with all or any part of the property of the Association.

(s) To construct, maintain and alter any houses, buildings, or works necessary or convenient for the purposes of the Association.

(t) To take any gift of property, whether subject to any special trust or not, for any one or more of the objects of the Association.

(u) To take such steps by personal or written appeals, public meetings or otherwise, as may from time to time be deemed expedient for the purpose of procuring contributions to the funds of the Association in the shape of donations, annual subscriptions or otherwise.

(v) For the purposes of the Association to borrow and raise money in such manner as the Association may think fit.

(w) To invest the moneys of the Association not immediately required upon such securities and in such manner as may from time to time be determined.

(x) To undertake and execute any trusts other than religious or any agency business which may seem directly or indirectly conducive to any of the objects of the Association either gratuitously or otherwise.

(y) For the purposes of the Association to make, accept, endorse and execute promissory notes, bills of exchange and other negotiable instruments.

(z) To incorporate any institutions, societies or associations having objects wholly or in part similar to those of this Association.

(a1) To provide a superannuation fund for the professors, lecturers, officers and servants of the Association or otherwise assist them, their widows and children.

(bb) To help students who receive education under the Association in finding suitable useful occupations.

(cc) To do all or any of the above things either as principals, agents, trustees or otherwise and by or through trustees, agents or otherwise and either alone or in conjunction with others.

(dd) To do all such other things as are incidental or conducive to the attainment of the above objects or any of them.

3. The names, addresses and occupations of the persons who are members of and form the governing body of the Association are :—

1. Dr. Rashbehary Ghose, M.A., D.L. C.I.E.,
Vakil, High Court, Calcutta,
46, Theatre Road, Calcutta.....President.

2. Dr. P. K. Ray, D. Sc.,
Late Principal, Presidency College, Calcutta,
7, Ballygunge Circular Road, Calcutta.....Vice-President.

3. Ray Yatindra Nath Chaudhuri, M.A., B.L.,
Zemindar, Kutighata, Barnagore, 24-Pergunahs.....Treasurer.

4. A. Chaudhuri Esq., M.A., (Cal.), B.A., (Cantab), Bar-at-law
Advocate, High Court, Calcutta,
39, Old Ballygunge Road, Calcutta.

5. Babu Hirendra Nath Datta, M.A., B.L.,
Solicitor, High Court, Calcutta,
139, Cornwallis Street, Calcutta.

6. Sir Gooroodas Banerjee, Kt., M.A., D.L.,
Late Judge, High Court, Calcutta,
19, Sastitala Road, Narkaldanga, Calcutta.

7. A. Rasul Esq., M.A., B.C.L. (Oxon.), Bar-at-Law,
Advocate, High Court, Calcutta,
14, Royd Street, Calcutta.

8. Babu Devaprasad Sarvadhicary, M.A., B.L.,
Solicitor, High Court, Calcutta,
13, Jeliapara Lane, Bow Bazar, Calcutta.

9. Dr. Nilratan Sircar, M.A., M.D.,
Medical Practitioner,
61, Harrison Road, Calcutta.

10. Aravinda Ghose, Esq., B.A. (Cantab).
12, Wellington Square, Calcutta.

11. Babu Ramendra Sundar Trivedi, M.A.,
Principal, Ripon College, Calcutta.

12. Babu Manomohan Bhattacharyya, M.A.,
Manager, Gouripur Estate, (Twelve annas) Mymensingh,
Gouripur, Mymensingh.

13. Babu Satis Chandra Mukerji, M.A., B.L.,
Secretary, Dawn Society.

4. The income and property of the Association whencesoever derived shall be applied solely towards the promotion of the objects of the Association as set forth in this Memorandum of Association and no portion thereof shall be paid or transferred directly or indirectly by way of dividend, bonus, remuneration or otherwise howsoever by way of profit to any of the members of the Association in respect of any services performed by them as members of the Association, provided that nothing herein contained shall prevent the payment in good faith of remuneration to any officers or servants of the Association who may also be

members thereof in return for any work done or services actually rendered to the Association, nor prevent the payment of interest at a rate not exceeding six per cent. on monies borrowed from any member of the Association.

5. No trustee or trustees in whom for the time being the properties of the Association might be vested shall be answerable for any loss arising in the administration or application of the said trust funds or sums of money or for any damage to or deterioration in the said trust premises unless such loss, damage or deterioration shall happen by or through his or their wilful default or neglect.

6. Upon the dissolution of the Association there shall remain after the satisfaction of all its debts and liabilities any property whatsoever, the same shall not be paid to or distributed among the members of the Association or any of them but shall be given or transferred to some other association or associations, institution or institutions having objects similar to the objects of this Association to be determined by the votes of not less than three-fifths of the members present personally or by proxy at the time of the dissolution, or in default thereof by the original side of the High Court in Calcutta.

A copy of the rules and regulations of the said National Council of Education, Bengal, is filed with this memorandum of Association and the undersigned being members of the governing body of the Association do hereby certify that such copy of such rules and regulations of the said Association is correct.

As witness our several and respective hands and signatures this 23rd day of May, 1906.

RASHBEHARY GHOSE

A. RASUL

ASHUTOSH CHAUDHURI

DEVAPRASAD SARVADHICARY

AUROBINDO GHOSE

SATISH CHANDRA MUKHERJEE

HIRENDRA NATH DATTA

NILRATAN SIRCAR.