

College of
Engineering & Technology,
Bengal



PROSPECTUS
SESSION 1954-55



P.O. JADAVPUR COLLEGE, CALCUTTA 32, BENGAL

Phone : Pk. 1910

Price -/12/-

JADAVPUR UNIVERSITY

LIBRARY

Class No. 378.6.62(541.2)

Book No. C.686
(NCE)

378.6.62(541.2)

C 686

(NCE)



THE NATIONAL COUNCIL OF EDUCATION.
BENGAL

MEMBERS OF THE EXECUTIVE COMMITTEE, 1954-55

Ex-Officio Members:

Dr. B. C. Roy, M.D., M.R.C.P., F.R.C.S. (Eng.),
President.

Dr. Sir Jadunath Sarkar, M.A., D.LITT.
Vice-President.

Sri Charu Chandra Biswas, M.A., B.L.,
Hony. Rector.

Sri Pyari Mookherjee,
Hony. Treasurer.

Sri Sasanka Sekhar Bagchi, A.M.E.E., B.E.E., M.I.E. (Ind.),
Hony. Secretary.

Sri Sachindra Bhushan Dutt, B.Sc., A.M.Ch.E., B.Ch.E.,
*Hony. Secretary, Managing Committee,
College of Engineering & Technology,
Bengal.*

Sri Sudeb Chandra Datta, A.M.E.E.,
*Hony. Secretary, Managing Committee,
Department for General Education.*

Dr. Trigunacharan Sen, Dr.Ing. (Munich), A.M.M.E. (B. Tech.),
M.I.E. (Ind.),
Principal.

Elected Members:

Prof. Satyendra Nath Bose, F.N.I.

Sri Atul Chandra Dutta, A.M.Ch.E.

Sri Haripada Bhaumik, O.B.E., B.A., M.I.E. (Ind.)

Sri Sachindra Nath Bandopadhyay, B.Sc. (Glass.), A.M.I.E. (Ind.)

Sri Hem Chandra Das Gupta, B.M.E. (Michigan).

Donor's Nominees :

Sri Kshitish Chandra Dutt, M.A.
Sri Annada Prasad Chaudhury, M.Sc.
Sri Ajendra Krishna Ghosh, B.L., Solicitor.
Sri Prabir Chandra Vasu Mallik, M.A. (Cantab.).

Faculty Representative :

Dr. Jatindra Nath Basu, Dr. Ing. (Berlin), A.M.M.E., A.M.E.E.,
M.I.E. (Ind.), V.D.I.

Representatives of the Alumni Association (N. C. E. Bengal)

Prof. Surendra K. Roy, M.E.E. (Harvard), M.A.I.E.E., M.I.E. (Ind.).
Sri Amulya Nath Sen Gupta, B.E.E.

Representative of the Institution of Engineers :

Sri J. N. Das Gupta, M.I.E., M.R.san.I.

Representatives of the Government of India :

Sri Biman Sen,
Asst. Educational Adviser (Tech.), Government of
India, Ministry of Education.

(Vacant)

*Representatives of the All India Council for
Technical Education :*

Sri T. R. Gupta,
General Manager, Jay Engineering Works, Calcutta.
Sri B. K. Rohatgi.

Representative of the West Bengal Government :

Dr. D. M. Sen, Ph.D. (London),
Secretary, Education Department, Govt. of West Bengal.

Co-opted Members :

Dr. Santi Bh. Dutt, M.A., Ph.D.ECON. (Lond.), Bar-at-Law.
Sri Amarendra Nath Halder, A.M.E.E.

HISTORY OF THE COLLEGE

The years 1905-06 are memorable ones in the annals of Bengal and indeed in the annals of India. The attempt by the Government to partition Bengal led to a country-wide agitation and intense nationalist movement, which, although political at the outset, had important economic and cultural aspects as well. The economic aspect of the movement found expression in the production and use of "Swadeshi" goods. The cultural aspect found expression in many forms, in the regeneration of Indian art and music, but most of all in the boycott of the then prevalent system of education and the establishment of a new system based entirely on national lines and intended to serve only national purposes.

It was in this way that the National Council of Education was started in 1906 "to impart 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 system 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 West, and inspire students with the genuine love for and desire to serve the country". The foundation of the National Council of Education was rendered possible by the munificence of three generous donors, the late Raja Subodh Chandra Mallik, Sj. Brojendra Kishore Roy Choudhury of Gouripur and the late Maharaja Surya Kanta Acharya Choudhury Bahadur of Mymensingh. The first President of the Council was Sir Rash Behari Ghosh, and with the early days of the N. C. E. were associated nearly all the notable figures of the time, some of whom later won world recognition, men like Poet Rabindranath Tagore, Sri Aurobindo and others.

In 1906, the year of the foundation of the National Council of Education, Bengal, there was established another body known as the Society for the Promotion of Technical Education in Bengal, also under the Presidentship of the late Sir Rash Behari Ghosh, with the object of imparting scientific and technical

education to the Indian people, calculated to further their industrial progress. Under the auspices of this Society there was started the Bengal Technical Institute (now known as the College of Engineering and Technology, Bengal), financed mainly by the late Sir Taraknath Palit. In 1910, the Society for the Promotion of Technical Education in Bengal was amalgamated with the National Council of Education.

The National Council at first maintained both Arts and Science and Technical Departments, but finding that public demand for Technical education was more insistent, the Council has been devoting for the last 43 years almost the whole of its resources to technical education through its College of Engineering & Technology.

In 1921 the Council had the good fortune to secure a donation of about 13 lacs (13,00,000) of rupees under the Will of the late Sir Rash Behari Ghosh. This princely bequest enabled the Council in 1924 to erect extensive buildings and workshops on its present site at Jadavpur. Besides the donations and endowments of the founders mentioned above, the Council has received up to date a sum of about 10 lacs of rupees as donations from various persons. The present site of the College of Engineering & Technology is a gift of the Corporation of Calcutta, which leased out to the Council 192 bighas of lands on a nominal rent. Besides this extensive plot of land, the Corporation has been making an annual grant of Rs. 30,000/- since 1927. Later on the Corporation made a non-recurring grant to the College of nearly 1½ lacs of rupees, partly as a loan and partly as a gift.

The Government of West Bengal have made a non-recurring grant of 5.26 lacs of rupees and a research grant of 10 thousand rupees and a recurring one of 70 thousand rupees per annum for the further development of the Chemical Engineering Department of this College. The Government have also granted an interest-free loan of 3.2 lacs of rupees to acquire land for hostel buildings.

The Government of India have sanctioned the following very handsome grants and loans:—

(a) Capital grant—

(i) for College buildings	... Rs. 5,84,715
(ii) for Equipments	... Rs. 19,75,285

(b) Recurring Annual Grant ... Rs. 5,98,000

(c) Interest-free Loan for Construction of Students' Hostels ... Rs. 16,41,000

These grants by the Central Government will enable the College to serve the country in a far more effective way than she is doing now.

COLLEGE OF ENGINEERING & TECHNOLOGY, BENGAL

Principal:

Dr. Trigunacharan Sen, Dr. Ing. (Munich), A.M.M.E. (B. Tech.),
A.M.I. Mech. E. (London), M.I.E. (Ind.)

Registrar:

Sri Prabir Chandra Vasu Mallik, M.A. (Cantab.).

THE FACULTY

DEPARTMENT OF MECHANICAL ENGINEERING

Sir Rash Behari Ghosh Professor and Head of the Department:

Dr. Satish Chandra Bhattacharyya, M.Sc. (Cal.),
Dr. Ing. (Berlin), A.M.M.E., A.M.E.E., V.D.I., M.I.E. (Ind.)

Professors:

Dr. Jatindra Nath Basu, Dr. Ing. (Berlin), A.M.M.E., A.M.E.E.,
M.I.E. (Ind.), V.D.I.

Sri Sudhir Kumar Chakraverti, B.S. (Worcester),
M.S. (Michigan), A.M.M.E., A.M.I.E. (Ind.)

Sri Amiya Kumar Basu, B.Sc. (Cal.), A.M.M.E.

Sri Gopal Chandra Sen, M.S.E. (Michigan), A.M.M.E.,
A.M.I.E. (Ind.)

Dr. Sivasundar Deb, Dr-es-Sc. (Paris).

Assistant Professors:

Sri Nirendra Nath Chattopadhyay, B.Sc. (Cal.), B.M.E.,
A.M.I.E. (Ind.)

Sri Bibhu Charan Mukherjee, B.M.E., E.I.H. (Grenoble).

Lecturers :

- Sri Sailaja Charan Sen Gupta, A.M.E.E.
 Sri Ananga Mohan Chatterjee, A.M.M.E.
 Sri Pravash Chandra De, B.M.E.
 Sri Binode Lal Das, B.M.E., A.M.M.E., A.M.I.E. (Ind.),
 Lt. 8 Bengal Engr. Pl.N.C.C.
 Sri Girindra Nath Das, B.M.E., A.M.I.E. (Ind.)
 Sri Amulya Prosad Ghosh, B.M.E., A.M.I.E. (Ind.)
 Sri Bibhuti Bhusan Majumdar, B.M.E., A.M.I.E. (Ind.)
 Sri Protap Chandra Roy, B.M.E.
 Sri Madhu Sudan Sen Gupta, B.Sc. (Cal.), B.M.E., M.S. (Wash.)
 Sri Bimaladas Banerjee, B.M.E., A.M.I.E. (Ind.)
 Sri Hari Das Banerjee, B.M.E., A.M.I.E. (Ind.)
 Sri Bireswar Prosad Ghosh, B.M.E., A.M.I.E. (Ind.)
 Dr. Santosh Kumar Banerjee, B.M.E., Dr.Ing. (Paris),
 (on study leave in France).
 Sri Sachindranarayan Bhaduri, B.COM., B.M.E., A.M.I.E. (Ind.)
 Sri Joydeb Chandra Das, B.M.E.
 Sri Krishna Chandra Chatterjee, B.M.E., A.M.I.E. (Ind.).
 Lt. 3 Bengal Signal Sec. N.C.C.
 Sri Joytish Chandra Sarkar, B.M.E.
 Sri Anil Kumar Chowdhury, B.M.E., M.S. (Wash.)
 (on study leave in U.S.A.).
 Sri Prakriti Bhusan Chatterji, B.M.E., A.M.I.E. (Ind.)
 Sri Sukumar Datta, B.M.E., M.S. (W. Virginia), A.S.M.E.
 Sri Amarendra Nath Chakraborty, B.M.E., A.M.I.E. (Ind.).
 Sri Narayan Chandra Kundu, B.M.E., A.M.I.E. (Ind.).
 Sri Rajat Kumar Chakraborty, B.Sc., B.M.E., A.M.I.E. (Ind.).
 Sri Prafulla Chandra Choudhury, B.M.E., A.M.I.E. (Ind.).
 Sri Probodh Kumar Chakraborty, B.M.E., A.M.I.E. (Ind.).
 Sri Sudhir Kumar Das, B.M.E.
 Sri Probbhash Kumar Sen, B.M.E.
 Sri Kartick Chandra Das, B.M.E., A.M.I.E. (Ind.).
 Sri Arun Kumar Gupta, B.M.E.
 Sri Benoyendra Nath Chanda, B.M.E., A.M.I.E. (Ind.).
 Sri Tarun Kumar Bhattacharyya, M.Sc.
 (on study leave in France).
 Sri Monojendra Narayan Bhowmik, B.Sc., B.M.E.
 Sri Amiya Kumar Banerjee, B.M.E., M.S. (Wash.)
 (on study leave in U.S.A.).

- Sri Girija Bhusan Pal, B.M.E., Lt. 8 Bengal Engr. Pl.N.C.C.
 Sri Anil Kumar Chatterjee, B.M.E., M.S. (Virginia)
 (on study leave in U.S.A.).
 Sri Nitai Chandra Das, B.M.E.
 Sri Bankim Chandra Mookherjee, M.Sc. (Cal.), F.G.S.,
 A.M. Inst. Fuel. (London).
 Sri Anil Kumar Das, B.M.E., A.M.I.E. (Ind.).

DEPARTMENT OF ELECTRICAL ENGINEERING

Raja Subodh Mallik Professor and Head of the Department :

- Sri Hem Chandra Guha, B.Sc. (Edin.), Mem.A.I.E.E. (U.S.A.),
 A.M.I.E.E. (London), M.I.E. (Ind.).

Professor Emeritus :

- Sri Surendra Kumar Roy, M.E.E. (Harvard),
 Mem.A.I.E.E. (U.S.A.), M.I.E. (Ind.).

Professors :

- Sri Manmatha Nath Chakraborty, B.Sc. (Cal.),
 B.S. (Worcester), M.S. (Purdue), A.M.E.E., A.M.I.E. (Ind.).
 Dr. Moti Lal Jain, D.Sc. (Harvard), M.E.E. (Cornell),
 B.Sc. Hon. Eng. (Benares), A.M.I.E. (Ind.), A.M.A.I.E.E.

Assistant Professors :

- Sri Debendra Nath Chakraborty, B.E.E., A.M.I.E. (Ind.),
 A.M.E.E., A.M.A.I.E.E. (U.S.A.)
 Sri Mohi Mohan Mukherji, M.S. (Washington), A.M.E.E.,
 A.A.I.E.E. (U.S.A.), M.I.R.E., A.M.I.E. (Ind.)
 Sri Sailesh Chandra Das Gupta, A.M.E.E., B.E.E.
 Sri Dharendra Kumar Deb, M.S. (Northwestern, U.S.A.),
 A.M.E.E., A.A.I.E.E. (U.S.A.), A.M.I.E. (Ind.)
 Sri Jyotsna Kumar Choudhury, M.Sc. (Cal.), M.Sc. Tech.
 (Manch.), Grad. I.E.E. (Lond.)

Visiting Lecturers :

- Dr. Manoranjan Dutta, M.Sc. (Cal.), M.Sc.Tech. (Manch.),
 Ph.D. (Edin.), A.M.I.E.E. (Lond.).
 Sri Amulya Nath Sen Gupta, B.E.E., A.M.I.E. (Ind.).

Lecturers :

Sri Mriganka Mohan Kar, B.Sc. (Cal.), B.E.E., A.A.I.E.E. (U.S.A.),
A.M.I.E. (Ind.).
Sri Danindra Nath Roy Bardhan, B.E.E., A.A.I.E.E. (U.S.A.),
A.M.I.E. (Ind.).
Sri Prokash Chandra Mondal, B.Sc. (Cal.), B.E.E., A.M.I.E. (Ind.).
Sri Probhat Kumar Sadhukhan, B.E.E., A.M.I.E. (Ind.).
Sri Amar Nath Das, B.E.E., A.M.I.E. (Ind.).
Sri Shyamapada Patra, B.E.E.
Sri Gobinda Prosad Purkayastha, B.E.E.
Sri Amal Kanta Goswami, B.E.E., Lt. 8 Bengal Sig. Sec. N.C.C.
Sri Anil Baran Dalal, B.E.
Sri Manmatha Kumar Das, B.E.E.
Sri Dwija Pada Chakraborty, B.E.E.

Instructor :

Sri Nitish Narayan Roy, B.E.E.

DEPARTMENT OF CHEMICAL ENGINEERING

*Maharaja Suryya Kanta Acharyya Professor and
Head of the Department :*

(Vacant)

Professor Emeritus :

Dr. Hira Lal Roy, A.B. (Harvard), Dr. Ing. (Berlin),
M.I.Ch.E., M.I.E. (Ind.), M.I.I.Ch.E.

Professors :

Dr. Sachindra Nath Mukherjee, D.Sc.
Dr. Anil Kumar Majumdar, D.Sc., A.R.I.C.
Dr. Bidyut Kamal Bhattacharyya, D.Sc.
Dr. Arabinda Nath Bose, M.Sc. (Cal.), Ph.D. (M.I.T.),
A.M.I.I.Ch.E.
Sri Gopal Chandra Banerjee, M.Sc.
Dr. Tuhin Kumar Roy, M.Sc. (Cal.), S.M. (M.I.T.),
Sc.D. (M.I.T.).

Assistant Professors :

Sri Provat Kusum Ray, M.Sc.
Sri Dilip Kumar Dutta, B.Sc. (Cal.), B.Ch.E., M.S. (Carnegie),
A.M.I.I.Ch.E.
Sri Hari Gopal Ganguli, A.M.M.E.
Sri Aswini Kumar Pal, B.M.E., A.M.I.E. (Ind.).
Sri Jatindra Mohan Palit, B.E.E., A.M.M.E., A.M.I.E. (Ind.),
A.M.A.E., A.A.I.E.E. (U.S.A.).
Dr. Bimalendu Ghosh, M.Sc. (Cal.), M.S. (Carnegie),
D.Sc. (Carnegie).

Lecturers :

Sri Bimal Chandra Chandra, B.Ch.E., A.M.I.I.Ch.E.
(on study leave in Germany).
Sri Kamalendu Sen Gupta, M.Sc.
Sri Sudhir Chandra Das Gupta, B.Sc.
Sri Tarun Kumar Ghosh, B.Ch.E., A.M.I.I.Ch.E.
(on study leave in Switzerland).
Sri Prasun Kumar Dey, M.Sc.
Sri Lochhu Pachhali, M.Sc.
Sri Nitish Chandra Chakraborty, B.Ch.E., A.M.I.I.Ch.E.
(on study leave in Germany).
Dr. Ramendra Nath Sen Sarma, M.Sc., D.Phil.
Sri Kshirod Chandra Roy Chaudhury, B.Sc. (Cal.), B.Ch.E.,
A.M.I.I.Ch.E.
Sri Buddhadev Sen, M.Sc. (on study leave in U.S.A.)
Dr. Probodh Ranjan Sinha, M.Sc., D.Phil.
(on study leave in U.S.A.).
Dr. Kalyan Kumar Mitra, B.Sc. (Cal.), Ph.D. (Bombay),
A.I.I.Sc., Dip.Ch.E.
Sri Aditya Prosad Sinha, B.Ch.E.

PHYSICS

Professor :

Sri Purna Chandra Biswas, M.Sc.

Assistant Professors :

Sri Naresh Chandra Sen, M.Sc., B.L.
Sri Hari Pada Sen, M.Sc.

Lecturers :

Sri Upendra Nath Banerjee, M.Sc., B.A.
Sri Lakshmi Kanta Coondoo, M.Sc.
Sri Sudhish Kumar Mukherji, M.Sc.

MATHEMATICS

Professor :

Dr. Sudhangshu Kumar Banerji, D.Sc., F.N.I.

Assistant Professor :

Sri Amar Nath Pramanik, M.A.

Lecturers :

Sri Dibendra Nath Mukherjee, M.Sc.
Sri Rampada Bhattacharyya, M.Sc.
Sri Bimal Bhusan Chatterjee, M.Sc.

HISTORY AND ENGLISH

Assistant Professor :

Dr. Siba Pada Sen, B.A. HONS. (London), D.Phil. (Cal.).

Lecturer :

Sri Khagendra Nath Das Gupta, M.A.

ENGINEERING ECONOMICS

Visiting Professor :

Sri Kshitish Chandra Roy, M.A., A.C.A., A.S.A.A.

LIBRARY

Sri Niranjana Chandra Maitra, B.Sc., B.A., Dip. Lib., *Librarian*.
Sri Purna Chandra Chakravorty, (Certificate in Librarianship
Training), *Assistant Librarian*.
Sri Prafulla Kumar Sen, *Library Assistant*.

PHYSICAL CULTURE

Sri Provash Chandra Banerjee.
Sri Jahar Paul.

Mechanical Supervisor :

Sri Hara Mohan Bose, A.M.E.E.

Electrical Supervisor :

Sri Bhawani Charan Mitra, F.M. & U.S.

Head Assistant :

Sri Paresh Nath Chakraborty.

Hostel Superintendent :

Sri Gopal Chandra Sen, M.S.E. (Michigan), A.M.M.E.,
A.M.I.E. (Ind.)

Medical Officer :

Dr. T. J. Gupta, M.B.

COLLEGE CAMPUS

Location. The College stands on a fine piece of land at Jadavpur within 5 miles by rail from the Sealdah Railway Station (Calcutta). The location is in the immediate vicinity of the Jadavpur Station and is also approachable by bus from Calcutta.

Buildings. The arrangements for instruction in the several departments of the College have been made in six spacious buildings. The main building, which is a three-storied one, occupies a floor space of 29,081 sq. feet. The Main Chemical Engineering Building has a total floor space of 18,791 sq. feet, and the Chemical Technology building covers a total floor space of 10,803 sq. feet. The Physics and the Electrical Engineering Department are housed in a three-storied building, which has a total floor space of 27,035 sq. feet. The Mechanical Engineering Laboratory and the Power Plant have a floor space of 13,633 sq. feet in another building. The workshops are in spacious

corrugated sheds with a floor space of 39,641 sq. ft. There is another corrugated-shed for Foundry and Smithy. Elaborate extensions of the Mechanical Engineering and the Electrical Engineering Laboratories are ahead. Besides there is a separate Store-shed.

There are fifteen staff quarters at present within the campus.

The College hostel is situated on a separate plot of land measuring some ten bighas by the side of the campus. There are four three-storied buildings accommodating over 500 students, two dining halls and a Superintendent's quarters.

There is a two-storied building with a floor space of 4,000 sq. feet comprising the Old Boys' Home and the Pavilion of the College Sporting Club. There is also a covered gymnasium with a floor space of 4,100 sq. feet. There are two sheds with a total floor space of 7,800 sq. feet where N.C.C. Sections have been accommodated.

COURSES OF STUDY

The College offers :

Degree Courses in Electrical, Mechanical and Chemical Engineering, leading to the Degrees of Bachelor of Electrical Engineering (B.E.E.), Bachelor of Mechanical Engineering (B.M.E.) and Bachelor of Chemical Engineering (B.Ch.E.) respectively. Each of these is a four years' course.

ADMISSION REQUIREMENTS

Students who have passed the I.Sc. or equivalent Examination of any recognised University with Physics, Chemistry and Mathematics (at least with 50% marks in Mathematics) and those who have passed the B.Sc. Examination with Physics, Chemistry and Mathematics of any recognised University are eligible for admission into the Engineering First Year Class of any of the three Degree Courses. The Pre-Engineering Examination of the Delhi Polytechnic Institute which has been

recognised by the Calcutta University as equivalent to their I.Sc. Examination, is recognised for purposes of admission into the Degree Courses of this College.

Candidates for the B.M.E. and B.E.E. degrees after obtaining one of the above degrees will be required to study for two years before they are allowed to go up for the examination for the other Degree course.

The age limit for B.Sc. passed candidates is 22 years and for I.Sc. passed candidates 20 years (on the date of admission).

ADMISSION PROCEDURE

Candidates seeking admission into the College for any of the Courses should apply to the Principal giving particulars required in the printed Admission Form obtainable on application from the College Office.

The Admission Form, duly filled in, must be submitted with a Registration Fee of Rs. 5/- in postal order by the 30th April.

Admission forms must be properly filled in. Incomplete or irregular Admission Forms will not be entertained.

Registration of names does not confer any right on the applicant for being called for interview; a candidate is called for interview only when the Selection Board deem that an interview is warranted. Registration fee is not refunded under any circumstances.

Applicants must communicate to College Office the results of the examination, at which they appeared last, as soon as they are published, if not previously communicated. Certificates of any description (original or copy) excepting University Certificates, will not be returned. Only copies are to be sent.

Preliminary selection of candidates will be made upon the total number of marks obtained by a candidate (who has passed the I.Sc. Examination) in Physics, Chemistry and Mathematics, provided that at least 50% of marks have been secured in Mathematics and final selection will be made after due interview of candidates by the Admission Board.

Preference will be given to students who have passed the B.Sc. Examination with Physics, Chemistry and Mathematics with Honours in any of these subjects.

The selected candidates will be admitted provided they are found to be fit on medical examination by the College.

There will be no interview for candidates from States other than West Bengal.

ALLOCATION OF SEATS FOR DIFFERENT STATES OTHER THAN WEST BENGAL

Mechanical Engineering—

Assam	...	...	...	6
Orissa	...	...	...	8
Part 'C' & 'D' States (Excluding Delhi)	...	...	...	6
Unreserved	...	...	...	4
				—
				24

Electrical Engineering—

Assam	...	...	...	6
Orissa	...	...	...	8
Part 'C' & 'D' States (Excluding Delhi)	...	...	...	2
Unreserved	...	...	...	2
				—
				18

Chemical Engineering—

Assam	...	...	...	2
Bihar	...	...	...	6
Orissa	...	...	...	3
Jammu & Kashmir	...	...	...	1
Pepsu	...	...	...	1
Part 'C' & 'D' States (Excluding Delhi)	...	...	...	2
Unreserved	...	...	...	3
				—
				18

FEES AND DEPOSITS

1. TUITION FEE for all students taking admission into the Engineering Courses of the College is Rs. 180/- per annum payable in nine equal instalments of Rs. 20/- from July to March.

2. (i) TUITION FEE must be paid on the dates to be notified by submitting the Fee-book which may be obtained from the Office on payment of annas four (-/4/-) per Fee-book per year.

(ii) Students who will be in default in paying their dues within the month will have to pay a late fine of As. -/2/- per month (under no circumstances it will be excused) and their names are liable to be struck off the Rolls.

(iii) Defaulters whose names have been struck off may be readmitted on payment of tuition fees for the session due up to and inclusive of the month of such re-admission together with a re-admission fee of Re. 1/-.

(iv) Re-admission fee and fines may be remitted wholly or partly in special cases on good and sufficient grounds.

3. No student shall be permitted to appear in the Annual Examinations unless he has paid his tuition fees and other dues, including Hostel charges, if any, for the whole session.

4. Admission once taken into any class shall be counted to be for one complete session.

5. All students excepting the newly admitted students will have to pay a Medical Examination Fee of Re. 1/- in July.

6. The caution money deposit for the students of the Chemical Engineering Course is Rs. 25/- and for the students of the other two Degree Courses is Rs. 10/-.

Caution money deposit for working in the laboratories, workshops, and other practical classes is refundable at the end of the College career after deduction for breakage or dues, if any. The Student must apply for its refund from the College within two years after he leaves the College and if he fails to do so, his deposit money will be forfeited.

At the beginning of each session students are to pay their respective breakage charges of the previous session.

7. At the time of admission to the College the following fees are payable by new entrants :

	Admission Fee	Tuition Fee for July Instalment	Magazine Fee	Contingency Fee	Students' Union Fee	Sporting Fee	Students' Aid Fee	Caution Money Deposit	Medical Examination Fee	Registration Fee	TOTAL
New students admitted into the First Year Classes	20/-	20/-	2/8	2/-	2/-	5/-	-/8	10/-	1/-	2/-	65/-
All students shall pay the following fees in July every year along with the Tuition Fee for the month			2/8	2/-	2/-	5/-	-/8	—	1/-	—	13/-

✓ N.B.—Caution Money Deposit for Chemical Engineering Course is Rs. 25/- and for other Degree Courses Rs. 10/-.

8. When a student has been admitted he shall not ordinarily be allowed to take transfer or withdraw his name except on payment of tuition fees for the unexpired portion of the session and arrears of tuition fees and other charges, if any.

STIPENDS, SCHOLARSHIPS AND FREE STUDENTSHIPS

Stipends, Scholarships and Free Studentships are awarded to poor and meritorious students and the continuance of the same depends on good progress, regular attendance and good behaviour.

Scholarships in the form of Free Studentships are awarded to students who passing in all subjects, head the lists of success-



ful candidates in the First, Intermediate and Third year Annual Engineering Examinations in the following way :

Examination	Position	Minm. Marks in Annual Examination	Tenure
<i>First Engineering—</i>			
Chemical ...	1st	70%	One year.
Mechanical & Electrical ...	1st, 2nd & 3rd	70%	One year.
<i>Intermediate Engineering—</i>			
Chemical ...	1st	70%	Two years.
Mechanical & Electrical ...	1st, 2nd & 3rd	70%	One year.
<i>3rd Yr. Annual Examination</i>			
Chemical Engineering ...	1st	70%	One year.
Electrical Engineering ...	1st	70%	One year.
Mechanical Engineering ...	1st & 2nd	70%	One year.

Free-students, if they leave the College without sufficient and satisfactory reasons, must pay fees for the full period for which they were allowed exemption.

Loan scholarships, in lump sums, to meet Examination and College fees are awarded by the Alumni Association, N. C. E., Bengal, to deserving Final Year students under straitened pecuniary circumstances. Loans are also given to deserving students from the Students' Aid Fund.

Deserving students may also avail of the following stipends and Scholarships :

Goopee Kristo Bose Stipend.

Nimai Chand Chatterjee Stipend.

Kristo Mohan Bose Stipend.

Rasul Memorial Scholarship.

Dwijendra Memorial Scholarship.

Mani Lal Chatterjee Stipend.

Nabanalini Debi Stipend.

Hiranmoyee Debi Stipend.

Mary K. Das & Taraknath Das (Loan) Scholarship.

Sreemat Bhagabat Scholarship.

32 West Bengal Government Stipends of the value of Rs. 300/- each per year for Degree Courses.

S. Ghose Memorial Scholarship of the value of not less than Rs. 700/- a year is awarded to a deserving Bengali Hindu candi-

date who has passed the Final Examination of the National Council of Education, Bengal, in Electrical Engineering to enable him to obtain Practical training in the subject abroad.

Prizes are awarded to students securing not less than 60 per cent marks in the aggregate according to the following scheme :—

First & Intermediate Engineering Examinations :—(on the results of the 1st & 2nd semester Examinations).

(i) For Chemical Engineering Candidates—1st to 5th places for each examination.

(ii) For Electrical & Mechanical Engineering Candidates for each examination—1st to 10th places.

For Final Engineering Examination (3rd year) :—

For each of the Chem., Elec. and Mech. Engineering 3rd year classes—1st to 5th places.

Prizes are awarded only to those students who have passed in all papers of their respective examinations.

A sufficient number of Industrial Training Stipends to the graduates are awarded by the Government of India every year for practical training in different factories for two years. Six stipends are also awarded by the Government of West Bengal to the graduates for practical training under the Government for one year.

COLLEGE HOSTELS

There are College Hostels with accommodation for over 500 students.

RULES AND REGULATIONS OF THE HOSTEL

I. ADMISSION

1. Applications for admission to the College Hostel from new students will only be considered after they have been admitted into the College. Every admission shall be subject to the approval of the Principal of the College of Engineering & Technology, Bengal.

2. All admissions are understood to be for a complete session and boarders are liable for all charges from the beginning of the session.

II. FEES

3. A Caution money of the amount of Rs. 50/- and a Messing Deposit of Rs. 40/- are payable in advance with every application for admission. The sum will be refunded in case a seat is not provided or when a boarder finally leaves the Hostel but in the latter case only after all dues have been paid up by him.

4. Admission fee of Rs. 5/- for a complete term shall be paid by every student on admission into the Hostel. Substitutes when permitted, may however be exempted from such fees. No boarder will be readmitted into the Hostel in the following session if he is not promoted to the next higher class.

5. Each boarder shall have to pay the following scale of rent including charges for medical attendance by the 10th of every month. For each day's delay, a fine of one anna per day will be realised up to the 20th of the month, after which his name will be struck off the Hostel register and he shall have to leave the Hostel.

Two-seated rooms	... Rs. 144/- per annum.
Four-seated rooms	... Rs. 120/- per annum.

6. The above rents will be realised in 9 equal monthly instalments beginning from the month of July in every session.

7. Monthly instalment of seat rent etc. for the current month and boarding charges for the previous month, must be paid at the office of the College in one sum by the 10th of every month. Failure to pay messing dues by the above date will make a boarder liable to have his meals stopped.

8. Boarders will have to pay for the total cost of the board including charges for electricity.

9. Withdrawal from the Hostel will require the sanction of the Principal of the College. Application for withdrawal must be countersigned by the guardian of the boarder.

III. ACCOUNTS

10. Separate books of accounts will be maintained for all deposits, receipts and expenditure of the Hostel.

11. A separate current bank account will be maintained to be operated upon by the Superintendent and the College authorities.

12. The monthly statement of expenditure will be drawn up by the Mess Assistant in collaboration with the Secretary of the Mess Committee and placed before the Mess Committee by the 5th of the subsequent month for adoption.

IV. FURNITURE

13. A bedstead, a table and a chair will be provided for each student. Wardrobe space will also be provided.

14. Furniture must not be removed from one room to another. In case of any damage wilfully or carelessly caused to any furniture, electric fixtures, utensils or any property belonging to the Hostel, it must be made good by the boarder or boarders causing it and fines shall be imposed on party or parties concerned.

15. Lights must be put out when a boarder leaves his room.

16. Extension of the existing electric wiring by any boarder is not permitted. Violation of this rule will be severely dealt with.

17. Boarders will have to provide their own electric bulbs. Bulbs must not exceed the wattage of 60 except with the express permission of the Superintendent and subject to such extra charges as may be fixed.

18. Electric fans, heaters, irons and other appliances must not be used except with the express permission of the Superintendent and subject to such extra charges as may be fixed.

19. A set of utensils for the dining-room and kitchen will be supplied to the Mess Committee which will be held responsible for its proper use and safe custody.

V. DISCIPLINE

20. The Hostel is divided into 4 blocks named as follows :

KIRON CHANDRA ROY MEMORIAL BLOCK

BENOY KUMAR SARKAR MEMORIAL BLOCK

GOORODAS BANDOPADHYAYA MEMORIAL BLOCK

SARAT DUTT MEMORIAL BLOCK

21. There are Wardens in the different blocks nominated by the Principal.

22. The Wardens will assist the Hostel Superintendent in maintaining discipline.

23. The Wardens will enjoy free accommodation.

24. The Wardens will call the roll at 7 o'clock in the morning and 8 o'clock in the evening. Boarders should return to the Hostel before evening roll call. In case of delay in their return after 8 p.m. they will be fined in the following scale :

Between 8 and 9 p.m. ... 1 anna

Between 9 and 11 p.m. ... 8 annas

After 11 p.m. they will be fined Re. 1/- and their names will be sent to the Principal of the College.

24. In case of absence from the Hostel, previous permission from the Hostel Superintendent is necessary.

26. There will be periods in the morning and in the evening fixed as study hours by the Superintendent.

27. Boarders will be expected to remain in their respective rooms and should behave in such a manner as not to cause any disturbances to others, specially during study hours.

28. Boarders must always confine to their respective seats after 11 p.m.

29. Allotment of seats for the boarders will rest entirely on the discretion of Hostel Superintendent.

30. Remaining in the Hostel, without sufficient reason, during College period is considered to be against Hostel discipline.

31. Any insubordination or incivility on the part of the menials should be at once reported to the Block Warden or the Mess Assistant.

32. If the conduct of any boarder is found unsatisfactory, he may be asked to leave the Hostel immediately without assigning any reason whatsoever.

VI. MESSING

33. The arrangement for meals will be made by a Mess Committee composed of:

- President* : Hostel Superintendent (ex-officio)
Vice-President : Wardens (ex-officio)
Student Members : One member for every 30 boarders
Mess Assistant

The Committee will meet regularly once at the beginning of the month to adopt the mess account and on other occasions as necessary. The Secretary will convene the meetings after consultation with the Superintendent.

34. The Mess Committee will have the following functions:

- (a) Checking of the suppliers' rates with market rates of different commodities.
- (b) Inspection and checking of the quality and quantities of all articles supplied for messing as well as the receipts and issue of articles in and from the stores.
- (c) Fixing menus for meals and to seeing that utensils are properly cleaned, spices properly ground, cooking and serving of food done properly and in a hygienic manner.

The above functions will be discharged by different sub-committees appointed by the Mess Committee in a general meeting to be held immediately after election as provided under rule 35.

35. The Mess Committee will be formed twice during a session. Election of its members will take place once in July, and again in January.

36. Secretary of the Mess Committee will be elected from amongst its elected members once in every month. Mess Committee will be responsible for management of messing affairs.

37. The following deductions from messing charges are allowed:

- (a) Full remission of meal charges, other than establishment charges which will be determined by the Mess Committee for absence from 30 consecutive meals in a month.

(b) Deduction of two annas per meal for absence from 15 or more consecutive meals in a month.

(c) No deduction will be granted to any boarder who is absent on leave from the Hostel but attends the College from outside.

38. Boarders must take their meals in the dining hall between a certain specified time in the morning and in the evening as notified by the Hostel Superintendent.

39. Meals will not be served in the rooms unless recommended by the Medical Officer and intimation for such should be made to the Mess Assistant before 9 a.m. and 7-30 p.m.

VII. MISCELLANEOUS

40. All appointments and dismissals of servants and cooks will be made by the Hostel Superintendent.

41. Boarders, when ill, will be attended by the Medical Officer, who attends the Hostel every morning. Boarders requiring medical attention are to have their names entered in the register kept for the purpose.

42. In the case of infectious diseases like plague, small-pox etc., the patient will be at once removed from the Hostel.

43. Visitors will not be allowed to stop in the Hostel overnight.

44. The Hostel will remain closed during Puja vacation and Summer vacation.

45. In all other matters not covered by the above rules the decision of the Principal will be final.

46. Any additions or alterations in the above rules will be made by the Principal as and when he thinks such to be necessary.

GENERAL INFORMATION

(a) College Regulations :—

(i) *The New Student's Responsibility.*—With a student's first registration in the College there begins for him a period of great responsibility, greater in most instances, than he has ever before been called upon to face. He should recognise that

the success of his college career depends in large measure upon his own purpose, his own industry, and his own determination to make good use of his opportunities. The College offers instruction and the use of its equipments, teachers and other officers are ready to help with encouragement and advice ; but after all, the responsibility for success or failure must rest with the student himself.

(ii) *Discipline*.—All students are subject to the disciplinary control of the authorities of the College. In any case of serious breach of discipline, the student concerned may be suspended from attendance by the Principal, and the Managing Committee may at its discretion expel any student from the College without assigning any reason.

(iii) *Attendance*.—The normal hours of attendance during the session are from 10 A.M. to 5 P.M. with half an hour's recess with slight modification in the winter.

Students must attend 70 per cent of the lectures in theoretical classes and 70 per cent of the exercises in practical classes. Percentage of attendance is strictly observed.

(iv) *Damage to College Property*.—Each student is held accountable for any apparatus or equipment that may be assigned to him and for any damage to College Property for which he is responsible. Damage to property that cannot be charged to individuals will be charged against all the students in the class (or section) where the loss occurs.

(v) *Accidents*.—The College Authorities cannot accept any liability in respect of any accident which a student may sustain when engaged in practical work in the laboratories or workshops.

(b) Students' Organisations and Activities :—

Reasonable participation in extra-curricular activities is a worthwhile part of a well rounded education. Opportunities for extra-curricular activities are provided through :

1. The Students' Union.
2. The Sporting Club.
3. The College Journal.

The Students' Union

All students of the College are members of the Students' Union. They meet and elect an Executive Committee of which the Principal is the President and two members of the teaching staff are Vice-Presidents. The Vice-Presidents act as Faculty Advisers to the Executive Committee of the Students' Union, while the management of the Union's affairs are left entirely to that body.

The Union control the disposal of the Students' Welfare Fund, organise debates, essay competitions, dramatics, and other literary activities and hold one 'social' every year.

The Sporting Club

Of the Sporting Club the Principal is the President and two members of the teaching staff act as Vice-President and General Secretary respectively. As in the Students' Union the Vice-President and the General Secretary act as Faculty Advisers leaving the management of the affairs of the Sporting Club to the elected student Secretaries of the various sections which comprise :—

1. The Football Section.
2. The Cricket Section.
3. The Hockey Section.
4. The Tennis Section.
5. The Gymnasium Section.

All students are expected to make use of the sports facilities provided for keeping themselves fit amidst a heavy academic programme and for recreation.

The College Journal

The College Journal is a four-monthly publication managed by an elected student body under the guidance of a Faculty Advisory Committee of which the Principal is the President and a member of the teaching staff is the Secretary.

A senior student is elected every year the Editor of the College Journal and is assisted by student sub-editors.

The 'Tech'.

The final year students publish every year a Year Book of their class called "TECH" containing life history and a photograph each, of the graduating students.

The Tech-Committee is elected every year from the final year classes and work under the guidance of a Tech. Adviser who is the Chairman of the Committee.

(c) National Cadet Corps (N.C.C.):—

This College has got two Technical Units N.C.C.

(i) 8 Bengal Engineer Platoon N.C.C.

(ii) 3 Bengal Signal Section N.C.C. providing for training 240 cadets at the present.

Students applying for admission in N.C.C. are selected every year after proper test, and they are given three years' training leading to 'B' and 'C' certificates which help the cadets to enter as an officer in the Armed Forces.

Cadets are required to attend 80 per cent of the parades and Technical Classes and join the camps which are held generally during the College vacations.

Privileges :

1. Cadets attending parades regularly are given benefit in the College percentage upto 10 per cent if they are short in class percentage.

2. A certain percentage of marks scored by the cadets in the B & C certificate Examination of the N.C.C. are added in the result of the Final Degree Examination to upgrade the cadets.

(d) The Alumni Association :—

The Alumni Association is the Association of the "Old Boys" of the College. In addition to other activities directed to benefit the College the Loan Scholarship Fund for final year students of the College and the Placement Service may be specially mentioned. On the termination of their college career all students become members of the Association.

EXAMINATION RULES

1. Only those students who have satisfactorily completed their practical work, satisfied the attendance requirements and paid all dues for the whole session, and have obtained at least 50% of the marks in the periodical examinations and also in the practical class work, are eligible to sit for the examination.

2. At the end of each Academic Session, all students must appear at the Annual Examinations held by the National Council of Education, Bengal, in papers as stated in the Prospectus.

3. In addition to the above examinations, every student shall, during each year of study, appear at three written Periodical Examinations in each theoretical paper. He shall also appear at Periodical Oral Examinations, if such are held.

4. All examinations will be held on "Compartmental System". Students must pass separately in every paper in the above examinations. A student who has passed the examination in any paper will not have to sit for examination in that paper again.

5. Every candidate will be declared to have passed the Examination in any paper if he obtains 50% of the marks at the Annual or Supplementary Examination.

Provided that if a candidate fails to obtain pass marks he may be credited with not more than 5 marks, transferred from the Periodical Examinations in excess of the pass marks in the paper in order to enable him to pass.

Only those students who have satisfactorily completed their practical work, and have obtained at least 50% of the marks in the periodical examinations and also in the practical class work, will be eligible to sit for the Examination.

6. (i) Students, detained in either Third Year or Fourth Year Class will not be eligible to get Honours.

(ii) Students, who have passed the Final Engineering Examination in all subjects at the first instance will be declared to have graduated in First Class with Honours provided they have passed in the Periodical Examinations securing at least 50% marks of the aggregate and have obtained at least 75 per cent of the aggregate marks of the class works and examination subjects of the Third and Fourth Year Classes.

(iii) Students, who have passed the Final Engineering Examination in all subjects will be declared to have graduated in First Class provided they have passed in the Periodical Examinations securing at least 50% marks of the aggregate and have obtained at least 65% of the aggregate marks of the class works and examination subjects of the Third and Fourth Year Classes.

(iv) Students, who have passed the Final Engineering Examination in all subjects will be declared to have graduated in Second Class provided they have passed in Periodical Examinations securing at least 50% marks of the aggregate and have obtained at least 50% of the aggregate marks of the class works and examination subjects of the Third and Fourth Year Classes.

7. If any student fails to get promotion to the next higher class he will be required to attend the classes and pay the regular tuition and other fees. Students eligible for readmission must apply to the Principal for his readmission by the 31st of July, after which no further application will be entertained.

8. (i) Students of the 1st and 2nd Year Classes who fail to get promotion to the next higher class on the result of the Annual Examinations will be allowed to study again in the 1st and 2nd Year Classes respectively for another session only and the students detained for two years in the same Class will not be allowed to continue their studies in the College any further.

(ii) Students of the 3rd year classes, who have been detained in the same class for two years, will be allowed to appear at another Annual Examination as non-collegiate students by paying only the examination fees, as current for the Supplementary Examination and such students need not be admitted into the College in that session and need not, therefore, pay tuition and other regular fees. Such students as have failed to pass, after availing of all the chances mentioned above, will not be allowed to continue their studies in the College any further.

(iii) Students of the 4th year classes, who have been detained in the same class for two years will be allowed to appear at subsequent Annual Examinations, as non-collegiate candidates, by paying only the examination fees as current for the

Supplementary Examination and such students need not be admitted into the College and need not, therefore, pay tuition and other regular fees.

9. Students belonging to Engineering Third Year Classes, who have passed in all papers of the Intermediate Engineering Examination, will be promoted to the Engineering Fourth Year Classes with a maximum of three papers in which they had failed to pass.

10. Only those students of Final Year Classes, who fail to pass in not more than three papers of the Final Engineering Examination will be permitted to appear and pass in those papers in two subsequent and consecutive examinations, including Supplementary Examination, without attending the classes, provided they can satisfy the Authorities of the College that they are employed in some recognised firm. Intimation of such employment should reach the College on or before the 1st day of September of the year in which they completed the study of the Final Year Class. They will also have to register their names in the College by paying an enrolment fee of Rs. 10/- (Rupees ten) only and will have to pay a fee of Rs. 20/- (Rupees twenty) only for each examination they sit for. Students of this category not engaged in any factory will have to take admission in the College and attend classes and pay all fees for the session.

11. Students of the Final Year Classes, who fail to pass in more than three papers of the Final Engineering Examination will be required to attend the classes and pay regular tuition and other fees. They will have to pass in all remaining papers in the next Supplementary and Annual Examinations.

12. Those students who duly cleared their dues up to the end of the session and duly paid the examination fees, but owing to some accident or unavoidable circumstances could not appear in any of the examinations of the Council, are allowed to appear in the next Annual examination without attending the classes and without paying any further tuition fees, excepting the examination fees. But they will have to enrol their names for the classes with payment of a fee of Rs. 5/- (Rupees five) only within a month after the beginning of the session.

13. A Supplementary Examination will be held each year between two Annual Examinations for the benefit of the

students who, having failed to pass in one or more subjects at the Annual Examination, are permitted to prosecute their studies in the next higher class. Such students can appear at the Supplementary Examinations only in those papers in which they had failed to pass.

14. Students shall pay examination fees as follows:

I. For Annual Examinations and examinations at the end of each semester:

(a) Final Engineering Examinations:

Rs. 4/- per paper subject to a minimum of Rs. 15/-.

(b) All other examinations:

Rs. 3/- per paper subject to a minimum of Rs. 12/-.

II. For Supplementary Examinations:

Degree Courses:

Rs. 4/- per paper of Final Engineering and

Rs. 3/- per paper for other examinations both subject to a minimum of Rs. 20/-.

15. Examination fees once paid shall in no case be refunded.

16. There will be no re-examination of answer papers which, however, will be scrutinized on payment of a fee of Rs. 5/- for each paper. The said fee will be refunded if bonafide errors are noted in the answer papers. Applications for scrutiny will not be entertained if submitted later than the last date announced.

17. No certificate will be issued by the Council on the results of any examinations except the Final. Degrees will be granted to students who pass the Final Examinations of the Degree Courses.

18. Fees for Annual and Supplementary Examinations must be paid within the dates to be fixed for the purpose.

Fifteen days' grace with a penalty of Rs. 5/- may be allowed at the discretion of the Controller of Examinations.

19. Examination rules for Engineering First and Second Year Classes are given under "Subjects of examination" of the respective classes.

PROGRAMME OF STUDY

(1) FIRST YEAR CLASS

Students who are admitted to the First Year Class of the Electrical, Mechanical and Chemical Engineering Courses after passing the I.Sc. or B.Sc. examinations of any recognised University, study the following subjects in the Engineering First Year Class:

Electrical and Mechanical Engineering

First Semester (11th July to 30th November)

SUBJECTS OF INSTRUCTION		PERIODS PER WEEK		
		Theore- tical	Prac- tical	Tutorial/ Guided Study
M. 1	Co-ordinate Geometry ...	4	—	2
M. 2A	Differential Calculus ...	4	—	2
P. 1	Physics (Heat, Light & Sound)	4	—	1
G. 1	English ...	2	—	—
E.M. 1	Engineering Mechanics I ...	4	—	2
D. 1	Drawing ...	—	6	—
D. 2	Descriptive Geometry ...	—	3	—
W. 1	Carpentry and Moulding ...	—	3	—
P. 1A	Physics Laboratory ...	—	4	—
Total ...		18	16	7

Second Semester (1st January to 15th April)

SUBJECTS OF INSTRUCTION		PERIODS PER WEEK		
		Theore- tical	Prac- tical	Tutorial/ Guided Study
M. 2B	Integral Calculus ...	4	—	2
P. 2	Physics (Electricity & Magnetism)	4	—	1
E.M. 1	Engineering Mechanics I ...	4	—	2
O. 1	Surveying ...	2	—	—
G. 1	English ...	2	—	—
G. 2	Modern World I ...	2	—	—
D. 1	Drawing ...	—	6	—
D. 2	Descriptive Geometry ...	—	3	—
W. 1	Carpentry and Moulding ...	—	3	—
P. 1A	Physics Laboratory ...	—	4	—
	Practical Survey ...	—	3	—
Total ...		18	19	5

Chemical Engineering

First Semester (11th July to 30th November)

SUBJECTS OF INSTRUCTION			PERIODS PER WEEK		
			Theore- tical	Prac- tical	Tutorial/ Guided Study
M. 1	Co-ordinate Geometry	...	4	—	1
M. 2A	Differential Calculus	...	4	—	1
P. 1	Physics (Heat, Light & Sound)	...	4	—	—
G. 1	English	...	2	—	—
E.M. 1	Engineering Mechanics I	...	4	—	—
Ch. 2	Inorganic Chemistry I	...	3	—	—
D. 1	Drawing	...	—	6	—
P. 1A	Physics Laboratory	...	—	4	—
Ch. 2A	Qualitative Analysis	...	—	6	—
W. 1	Carpentry	...	—	3	—
(Part)					
	Total	...	21	19	2

Second Semester (1st January to 15th April)

SUBJECTS OF INSTRUCTION			PERIODS PER WEEK		
			Theoretical	Practical	
M. 2B	Integral Calculus	...	4	—	—
P. 2	Physics (Electricity & Magnetism)	...	4	—	—
E.M. 1	Engineering Mechanics I	...	3	—	—
Ch. 2	Inorganic Chemistry I	...	3	—	—
Ch. 3	Organic Chemistry I	...	5	—	—
G. 1	English	...	2	—	—
G. 2	Modern World I	...	2	—	—
D. 1	Drawing	...	—	6	—
P. 1A	Physics Laboratory	...	—	4	—
Ch. 2A	Qualitative Analysis	...	—	9	—
	Total	...	23	19	—

Changes in the CurriculumCHEMICAL ENGINEERING FIRST YEAR

First Semester.

D2 Descriptive Geometry in place of (page 32)
W1 Carpentry

CHEMICAL ENGINEERING THIRD YEAR

Delete

Ch. 13 Fuels and their Combustions (page 40)

Subjects of Examination (page 44)

Add. Chemical Engineering II - 1 paper ... 100 Full Marks
in place of Fuels & their Combustions.

CHEMICAL ENGINEERING FOURTH YEAR. (page 46)

Add. Ch. 13 Fuels & thier Combustions 2 periods

Subjects of Examination (page 50)

Add. Fuels & their Combustion - 1 paper 100 Full Marks
in place of Chemical Engineering II

SUBJECTS OF EXAMINATION

(1) FIRST YEAR CLASS

Students of the First Year Classes, who have completed the programme of study offered in the first semester will be allowed to appear in the following papers of the First Engineering Examinations of the National Council of Education, Bengal, held annually at the end of first semester, in the month of December.

First-Semester Examination

(1) *Electrical and Mechanical Engineering*

SUBJECTS	NO. OF PAPERS	FULL MARKS
1. Co-ordinate Geometry ...	1	100
2. Differential Calculus ...	1	100
3. Heat, Light and Sound ...	1	100
	3	300

(2) *Chemical Engineering*

SUBJECTS	NO. OF PAPERS	FULL MARKS
1. Co-ordinate Geometry ...	1	100
2. Differential Calculus ...	1	100
3. Heat, Light and Sound ...	1	100
	3	300

Students of the First Year Classes who have completed the programme of study offered in the second semester and have obtained at least 50 per cent marks in each of the practical subjects of instruction (which includes also any tutorial work) offered during the academic year and have satisfied the attendance rule will be allowed to appear in the following papers of the First Engineering Examination of the National Council of Education, Bengal, held annually at the end of Second semester in the month of April and May.

Students who fail to complete their class works satisfactorily will not be allowed to sit for the examination.

Second Semester Examination

(1) Electrical and Mechanical Engineering

SUBJECTS		NO. OF PAPERS	FULL MARKS
1. Modern World I ...	...	1	100
2. English ...	...	1	100
3. Integral Calculus ...	...	1	100
4. Electricity and Magnetism ...	...	1	100
5. Engineering Mechanics I ...	...	1	100
6. Surveying ...	...	1	100
7. Drawing (6 hours) ...	...	1 (Practical)	100
8. Descriptive Geometry (3 hours)	...	1 „	100
9. Physics Laboratory ...	...	1 „	100
		9	900

(2) Chemical Engineering

SUBJECTS		NO. OF PAPERS	FULL MARKS
1. Modern World I ...	...	1	100
2. English ...	...	1	100
3. Inorganic Chemistry I ...	...	1	100
4. Organic Chemistry I ...	...	1	100
5. Integral Calculus ...	...	1	100
6. Electricity and Magnetism ...	...	1	100
7. Engineering Mechanics I ...	...	1	100
8. Drawing (6 hours) ...	...	1 (Practical)	100
9. Physics Laboratory ...	...	1 „	100
		9	900

Students, who have passed in all papers of the First Engineering Examinations subject to rules 3 and 5 of Examination Rules are promoted to the Engineering Second Year Class.

For the benefit of the students who have failed to get promotion to the Second Year Class due to their being absent or being unable to secure pass mark in one or more papers of the examination held at the end of First and, or Second Semes-

ters, a Supplementary Examination will be held in the last week of June. Students passing in this examination will also be promoted to the Second Year Class. Those students who cannot secure promotion will be allowed to study again in the same class as regular students for another session only, or will be given one more chance to clear the paper or papers in the supplementary examination held at the end of the next session as non-collegiate students who will have to pay only examination fees but no tuition fees.

PROGRAMME OF STUDY

(2) SECOND YEAR CLASSES

Students, who have been promoted from the First Year Class, study the following subjects in the Second Year Classes:

Electrical and Mechanical Engineering

First Semester (11th July to 30th November)

	SUBJECTS OF INSTRUCTION	PERIODS PER WEEK		
		Theore- tical	Prac- tical	Tutorial Guided Study
M. 3	Integral Calculus and Differen- tial Equations ...	4	—	1
E.E. 1	Principles of Electrical Engineering I ...	2	—	1
E.E. 2	Electrical Wiring and Installations ...	2	—	—
E.E. 3	Direct Current Machines ...	4	—	—
E.M. 2	Engineering Mechanics II ...	3	—	1
M.E. 1	Engineering Thermodynamics	2	—	1
G. 3	Modern World II ...	2	—	—
M.E. 19	Machine Drawing ...	—	6	—
E.M. 9	Engineering Computation ...	—	4	—
E.E. 22	Electrical Engineering Laboratory I ...	—	3	—
W. 2	Patterns and Forging ...	—	3	—
W. 3	Fitters' shop ...	—	3	—
Total ...		19	19	4

Second Semester (1st January to 15th April)

	SUBJECTS OF INSTRUCTION	PERIODS PER WEEK		
		Theore- tical	Tutorial Guided Study	Prac- tical
E. M. 8	Engineering Materials & Processes ...	4	—	—
M. E. 1	Engineering Thermodynamics	2	1	—
M. E. 2	Mechanism ...	4	—	—
E. M. 2	Engineering Mechanics II ...	3	1	—
E. E. 1	Principles of Electrical Engineering I ...	2	1	—
E. E. 1A	Electrical Measuring Instruments	2	—	—
M. 4	Engineering Mathematics ...	2	1	—
M. E. 19	Machine Drawing ...	—	—	6
E. E. 22	Electrical Engineering Laboratory I ...	—	—	3
W. 2	Patterns and Forging ...	—	—	3
W. 3	Fitters' Shop ...	—	—	3
E. M. 7	Mechanism Drawing ...	—	—	4
Total ...		19	4	19

Chemical Engineering

First Semester (11th July to 30th November)

	SUBJECTS OF INSTRUCTION	PERIODS PER WEEK		
		Theore- tical	Prac- tical	Tuto- rial Guided Study
Ch. 5	Organic Chemistry II ...	6	—	—
Ch. 6	Physical Chemistry I ...	3	—	—
M. 3	Integral Calculus & Differential Equation ...	4	—	1
M. E. 3	Heat Engines ...	4	—	1
E. E. 17	Electrical Engineering ...	3	—	—
G. 3	Modern World II ...	2	—	—
M. E. 19	Machine Drawing ...	—	6	—
Ch. 4A, Ch. 5A & Ch. 11A	Inorganic Chemistry Laboratory	—	12	—
Total ...		22	18	2

Second Semester (1st January to 15th April)

	SUBJECTS OF INSTRUCTION	PERIODS PER WEEK		
		Theore- tical	Prac- tical	Tutorial Guided Study
E. M. 3	Engineering Mechanics	6	—	1
Ch. 6	Physical Chemistry I ...	3	—	—
Ch. 4	Inorganic Chemistry II	4	—	—
E. E. 17	Electrical Engineering	3	—	—
M. E. 19	Machine Drawing ...	—	6	—
E. E. 17A	Electrical Engineering Laboratory ...	—	3	—
Ch. 4A, Ch. 5A & Ch. 11A	Chemistry Laboratory	—	12*	—
M. 4	Engg. Mathematics ...	2	—	1
Total ...		18	21	2

SUBJECTS OF EXAMINATION

(2) SECOND YEAR CLASS

Students of the Engineering Second Year Classes, who have completed the programme of study offered in the first semester will be allowed to appear in the following papers of the Intermediate Engineering Examination of the National Council of Education, Bengal, held annually at the end of the First Semester, in the month of December.

First Semester Examination

Electrical and Mechanical Engineering

SUBJECTS	NO. OF PAPERS	FULL MARKS
1. Integral Calculus and Differential Equation ...	1	100
2. Modern World II ...	1	100
3. Direct Current Machines ...	1	100
4. Electric Wiring and Installations ...	1	100
Total		400

* 9 Inorganic. 3 Organic.

Chemical Engineering

SUBJECTS	NO. OF PAPERS	FULL MARKS
1. Integral Calculus and Differential Equation ...	1	100
2. Modern World II ...	1	100
3. Heat Engines ...	1	100
4. Organic Chemistry II ...	1	100
	—	—
	4	400

Students of the Engineering Second Year Classes who have completed the programme of study offered in the Second Semester and have obtained at least 50 per cent marks in each of the practical subjects of instruction (which includes also any tutorial work) offered during the academic year, and have satisfied the attendance rule will be allowed to appear in the following papers of the Intermediate Engineering Examination of the National Council of Education, Bengal, held annually at the end of the Second Semester in the month of April and May.

Students, who fail to complete their class works satisfactorily, will not be allowed to sit for this examination.

*Second Semester Examination**Electrical and Mechanical Engineering*

SUBJECTS	NO. OF PAPERS	FULL MARKS
1. Engineering Materials and Processes	1	100
2. Engineering Thermodynamics ...	1	100
3. Mechanism ...	1	100
4. Engineering Mechanics II ...	1	100
5. Principles of Electrical Engineering I	1	100
6. Electrical Measuring Instruments ...	1	100
7. Engineering Mathematics ...	1	100
8. Machine Drawing (6 hours) ...	1 (Practical)	100
	—	—
	8	800

Chemical Engineering

SUBJECTS	NO. OF PAPERS	FULL MARKS
1. Engineering Mechanics ...	1	100
2. Inorganic Chemistry II ...	1	100
3. Physical Chemistry I ...	1	100
4. Electrical Engineering ...	1	100
5. Engineering Mathematics ...	1	100
6. Machine Drawing (6 hours) ...	1 (Practical)	100
	—	—
	6	600

Students, who have passed in all papers of the Intermediate Engineering Examinations subject to rules 3 and 5 of Examination Rules are promoted to the Engineering Third Year Class.

For the benefit of the students who have failed to get promotion to the Third Year Class due to their being absent or being unable to secure pass mark in one or more papers of the examination held at the end of First and, or, Second Semester, a supplementary examination will be held in the last week of June. Students passing in this examination will also be promoted to the Third Year Class. Those students, who cannot secure promotion due to failure to get pass mark or being absent in one or more papers, will be allowed to study again in the same class as regular students for another session only, or will be given one more chance to clear the paper or papers in the supplementary examination held at the end of the next session as non-collegiate students who will have to pay only examination fees but no tuition fees.

No student will be allowed to sit for any paper in the supplementary examination if he has not completed all class works satisfactorily. If a student is debarred from appearing in the Supplementary Examination held at the end of the Second Semester, due to incomplete class works, he will be given one more chance to attend the classes and will have to take admission in the College by paying readmission fee and attend regularly for the whole session those practical classes in which his progress was not satisfactory. He shall have to pay the full tuition and other fees. On satisfactory completion of class

works (which means securing at least 50 per cent marks) he will be allowed to sit for the Annual Examination held at the end of the Second Semester as well as in the Supplementary Examination if need be. If he fails to clear all papers in these two successive examinations he will not be allowed to study in the College any further. It should be noted that class work includes tutorial works in any subject when such are held.

This rule apply to both First and Second Year Engineering Classes.

PROGRAMME OF STUDY

(3) THIRD YEAR CLASS

Students, who have been promoted from the Second Year Classes, study the following subjects in the Third Year Classes:

Chemical Engineering

SUBJECTS OF INSTRUCTION	PERIODS PER WEEK	
	Theoretical	Practical
E. M. 5 Strength of Materials ...	3	—
Ch. 7. Physical Chemistry II ...	2	—
Ch. 8 Electrochemistry ...	3	—
Ch. 11 Industrial Chemistry I ...	2	—
Ch. 12 Metallurgy and Engineering Materials ...	3	—
Ch. 10 Chemical Engineering I ...	3	—
Ch. 13 Fuels and Their Combustion ...	2	—
Ch. 10A Chemical Engineering II ...	2	—
Ch. 9, Ch. 11A Physico-Chemical Measurements ...	—	15*
Ch. 11A, Ch. 5A Technical Analysis (Organic) ...	—	15*
M. E. 9C Machine Drawing and Design ...	—	3
W. 4A Machine Shop ...	—	3
Total ...	20	21

* For half year.

Electrical Engineering

(Power Engineering option)

SUBJECTS OF INSTRUCTION	PERIODS PER WEEK	
	Theoretical	Practical
E. M. 5 Strength of Materials ...	3	—
M. E. 8 Hydraulics ...	2	—
M. E. 7 Prime Movers ...	3	—
E. E. 5 Differential Equation & Electrical Networks ...	2	—
E. E. 6 Alternating Current Machines I ...	4	—
E. E. 4 Principles of Electrical Engineering II ...	2	—
E. E. 4A Electron Tubes and Circuits ...	2	—
E. E. 8 Electrical Measuring Instruments and Measurements ...	3	—
E. E. 21 Electrical Engineering Calculations ...	—	2
E. E. 19 Electrical Drawing and Design ...	—	3
E. E. 23 Electrical Engineering Laboratory II ...	—	3
M. E. 9B Machine Drawing & Design ...	—	5
M. E. 21B Mechanical Engineering Laboratory ...	—	3
W. 4A Machine Shop ...	—	3
Total ...	21	19

(Communication Engineering Option)

Students will have to opt at the beginning of the Third Year

SUBJECTS OF INSTRUCTION		PERIODS PER WEEK	
		Theoretical	Practical
E.M. 5	Strength of Materials ...	3	—
M.E. 7	Prime Movers ...	3	—
E.E. 5	Differential Equations and Electrical Networks ...	2	—
E.E. 6	Alternating Current Machines I	4	—
E.E. 4	Principles of Electrical Engineering II ...	2	—
E.E. 8	Electrical Measuring Instruments and Measurements ...	3	—
E.E. 15.05	Advanced Physics ...	2	—
E.E. 15.1	Theory & Application of Electron Tubes ...	2	—
	German Language ...	1	—
E.E. 21	Electrical Engineering Calculations ...	—	2
E.E. 15.3	Computation ...	—	3
E.E. 23	Electrical Engineering Laboratory II ...	—	3
M.E. 21B	Mechanical Engineering Laboratory ...	—	3
M. 4A	Machine Shop ...	—	3
E.E. 15.2	Electronics Laboratory I ...	—	3
Total ...		22	17

Mechanical Engineering

SUBJECTS OF INSTRUCTION		PERIODS PER WEEK	
		Theoretical	Practical
E.M. 4	Strength of Materials and Theory of Structures ...	4	—
M.E. 8	Hydraulics ...	2	—
M.E. 9	Theory of Machine Design ...	2	—
M.E. 4	Steam Engines & Boilers ...	4	—
M.E. 5	Steam Turbine ...	2	—
M.E. 6	Internal Combustion Engines	2	—
E.E. 16	A. C. Machines & Power Distribution ...	3	—
M.E. 9A	Machine Drawing & Design ...	—	9
M.E. 21A	Mechanical Engineering Laboratory ...	—	6
E.E. 23A	Electrical Engineering Laboratory ...	—	3*
W. 4	Workshop Practice—Machine-shop ...	—	6
Total ...		19	21

SUBJECTS OF EXAMINATION**(3) THIRD YEAR CLASS**

Students of the Engineering Third Year Classes, who have completed the above programme of study and have obtained at least 50 per cent marks in the Practical Subjects of Instruction, and have satisfied attendance rule are allowed to appear in the

* For half year instead of M.E. 21A.

following subjects of the Final Engineering Examination of the National Council of Education, Bengal, held annually at the end of the Academic Session :

Chemical Engineering

SUBJECTS	NO. OF PAPERS	FULL MARKS
Strength of Materials	1	100
Physical Chemistry II	1	100
Electro-Chemistry	1	100
Industrial Chemistry I	1	100
Metallurgy and Engineering Materials	1	100
Fuels & their Combustion	1	100
Chemical Engineering I	1	100
Machine Drawing & Design (6 hours) ...	1 (Practical)	100
Technical Analysis	1 „	100
	9	900

Electrical Engineering

(Power Engineering Option)

SUBJECTS	NO OF PAPERS	FULL MARKS
Strength of Materials	1	100
Hydraulics	1	100
Prime Movers	1	100
Differential Equations & Electrical Net-works	1	100
Alternating Current Machines I ...	1	100
Principles of Electrical Engineering II	1	100
Electrical Measuring Instruments and Measurements	1	100
Electron Tubes & Circuits	1	100
Machine Drawing & Design (6 hours) ...	1	100
	9	900

(Communication Engineering Option)

SUBJECTS	NO. OF PAPERS	FULL MARKS
Strength of Materials	1	100
Prime Movers	1	100
Differential Equations & Electrical Net-works	1	100
Alternating Current Machines I ...	1	100
Principles of Electrical Engineering II	1	100
Electrical Measuring Instruments & Measurements	1	100
Advanced Physics	1	100
Theory and application of Electron Tubes	1	100
Electronics Laboratory	1 (Practical)	100
	9	900

Mechanical Engineering

SUBJECTS	NO. OF PAPERS	FULL MARKS
Strength of Materials and Theory of Structures	1	100
Hydraulics	1	100
Theory of Machine Design	1	100
Steam Engines & Boilers	1	100
Steam Turbines	1	100
Internal Combustion Engines	1	100
A.C. Machines & Power Distribution ...	1	100
Machine Drawing & Design (6 hours) ...	1	100
	8	800

Students, who have passed in all subjects of the above Examination, subject to Rules 3 and 5 of the Examination Rules, are promoted to the Engineering Fourth Year Classes, provided they have also passed in all subjects of the Intermediate Engineering Examination.

Students, who have passed in all subjects of the Intermediate Engineering Examination and have got plucked in not more than three of the above subjects of the Final Engineering Examination, will also be promoted to the Engineering Fourth Year Classes. They will, however, have to pass in those subjects of the Third Year Class in which they failed to secure pass marks before they can be granted the Degree at the end of the Course.

PROGRAMME OF STUDY

(4) ENGINEERING FOURTH YEAR CLASS

Students, who have been promoted from the Engineering Third Year Classes, study the following subjects in the Fourth Year Classes :

Chemical Engineering

SUBJECTS OF INSTRUCTION		PERIODS PER WEEK	
		Theoretical	Practical
Ch. 14	Chemical Engineering III	4	—
Ch. 15	Industrial Chemistry II ...	3	—
Ch. 14A	Chemical Engineering IV	4	—
G. 4	Engineering Economics ...	2	—
Ch. 16	Chemical Engineering Laboratory ...	—	14*
<i>Electives :</i>			
<i>Any one of the following three :</i>			
Ch. 17, 17A	Chemical Technology of Oils & Fats ...	3	9
Ch. 18	Glass Technology ...	3	
Ch. 19, 19A	Food Technology ...	3	
Total ...		16	23

* Students are required to work in the Mechanical Engineering Laboratory M. E. 21C for eight weeks as part of the work in Ch. 16.

Electrical Engineering

(Power Engineering Option)

SUBJECTS OF INSTRUCTION		PERIODS PER WEEK	
		Theoretical	Practical
M.E. 24	Power Plant and Boiler ...	2	—
E.E. 7	Alternating Current Machines II	2	—
E. E. 10	Electric Power Transmission ...	2	—
E.E. 11	Electric Power Generation ...	3	—
E.E. 9	Electric Power Distribution ...	2	—
E.E. 12	Power Utilization and Traction	2	—
G. 4	Engineering Economics ...	2	—
M.E. 16	Industrial Administration ...	2	—

Electives :

Any one of the following four subjects :

E.E. 13.1	Advanced Electrical Measuring Instruments and Measurements ...	2	—
E.E. 13.2	Switch gear and Protective Devices ...		
E.E. 13.3	Industrial Electronics ...		
E.E. 13.4	Electrical Machine Design ...		
E.E. 13.5	High Voltage Technique ...		
E.E. 18	Electrical Drawing ...	—	3
E.E. 20	Electrical Project Design ...	—	6
E.E. 24	Electrical Engineering Laboratory III ...	—	6
E.E. 25	Computation & Design for Elective Course ...	—	3
E.E. 26	Abstract ...	—	2
		19	20

First Semester

(Communication Engineering Option)

SUBJECTS OF INSTRUCTION		PERIODS PER WEEK	
		Theoretical	Practical
E.E. 15.4	Communication Networks ...	3	—
E.E. 15.5	Electroacoustics ...	3	—
E.E. 15.6	Electromagnetic Waves ...	2	—
E.E. 15.7	Radio Communication and Broadcasting ...	4	—
E.E. 15.20	Transmission & Communica- tion ...	4	—
G. 4	Engineering Economics ...	2	—
	German Language ...	2	—
E.E. 15.8	Electronics Laboratory II ...	—	6
E.E. 15.9	Electronic Equipment shop I ...	—	3
E.E. 15.10	Electronic Design I ...	—	6
E.E. 15.11	Communication Laboratory I ...	—	3
Total ...		20	18

Second Semester

SUBJECTS OF INSTRUCTION		PERIODS PER WEEK	
		Theoretical	Practical
E.E. 15.12	Telephone and Telegraph System ...	4	—
E.E. 15.13	Microwave Technique ...	4	—
E.E. 15.14	Measurement in Communica- tion ...	4	—
E.E. 15.20	Transmission & Communica- tion ...	4	—
G. 4	Engineering Economics ...	2	—
	German Language ...	2	—
E.E. 15.15	Communication Laboratory II ...	—	6
E.E. 15.16	Electronic Design II ...	—	3
E.E. 15.17	Electronic Equipment shop II ...	—	3
E.E. 15.18	Measurement Laboratory ...	—	1
E.E. 15.19	Seminar ...	—	—
Total ...		20	19

Mechanical Engineering

SUBJECTS OF INSTRUCTION		PERIODS PER WEEK	
		Theoretical	Practical
E.M. 6	Technical Dynamics ...	2	—
M.E. 11	Power Plant Engineering ...	2	—
M.E. 16	Industrial Administration ...	2	—
M.E. 15	Mechanical Handling of Materials ...	2	—
M.E. 14	Materials of Construction ...	2	—
M.E. 13	Machine Tools ...	2	—
G. 4	Engineering Economics ...	2	—
G. 5	General Geology ...	2	—

Electives :

Any two of the following six Subjects :

G. 6	Engineering Geology ...	2	}	4	—
M.E. 17	Refrigeration ...	2			
M.E. 18	Air Conditioning ...	2			
M.E. 12	Motor Car Engineering ...	2			
M.E. 10	Hydraulic Machines and Water Power ...	2			
M.E. 23	Railway Engineering, Mechanical ...	2			
<i>Or</i>					
<i>the following two :</i>					
M.E. 25	Production Engineering I (Quantity Production Methods) ...	2			
M.E. 26	Production Engineering II (Production Planning) ...	2			
W. 4	Advanced Workshop Practice	—			6
M.E. 21A	Mechanical Engineering Labo- ratory ...	...	—		3
M.E. 20	Machine Design ...	...	—		9
M.E. 22	Abstract ...	...	—		2
Total ...					20
					20

SUBJECTS OF EXAMINATION

(4) FOURTH YEAR CLASS

Students of the Engineering Fourth Year Classes, who have completed the above Programme of Study and have obtained at least 50 per cent marks in the Practical Subjects of instruction and have satisfied the attendance rule are allowed to appear in the Final Engineering Examination of the National Council of Education, Bengal, held annually at the end of the Academic Session in the following remaining subjects of that Examination :

Chemical Engineering

SUBJECTS	NO. OF PAPERS	FULL MARKS
Chemical Engineering II ...	1	100
Chemical Engineering III ...	1	100
Industrial Chemistry II ...	1	100
Chemical Engineering IV ...	1	100
Engineering Economics ...	1	100
Chemical Engineering Design ...	1	100
General Knowledge in Chemistry and Chemical Engineering ...	1 (oral)	100

Electives :

Chemical Technology of Oils and fats or Glass and Ceramic Technology or Food Technology	1	100
Chemical Engineering Laboratory ...	1	100
	9	900

Electrical Engineering
(Power Engineering Option)

SUBJECTS	NO. OF PAPERS	FULL MARKS
Power Plant and Boiler ...	1	100
Alternating Current Machines II ...	1	100
Electric Power Transmission ...	1	100
Electric Power Generation ...	1	100
Electric Power Distribution ...	1	100
Power Utilization and Traction ...	1	100
Engineering Economics ...	1	100
Industrial Administration ...	1	100

Electives : any one of the following :

Advanced Electric Measuring Instruments and Measurements ...	1	100
Switchgear and Protective Devices ...		
Industrial Electronics ...		
Electrical Machine Design ...		
Electrical Engineering Laboratory (Oral)	1	100
	10	1000

(Communication Engineering Option)

SUBJECTS	NO. OF PAPERS	FULL MARKS
<i>At the end of First Semester :</i>		
Communication Networks ...	1	100
Electroacoustics ...	$\frac{1}{2}$	50
Electromagnetic Waves ...	$\frac{1}{2}$	50
Radio Communication and Broadcasting ...	1	100
<i>At the end of Second Semester :</i>		
Telephone & Telegraph Systems ...	1	100
Microwave Techniques ...	1	100
Measurements in Communication ...	1	100
Transmission of Communication ...	1	100
Engineering Economics ...	1	100
German Language ...	1	100
Communication, Electronics and Measurement Laboratory ...	1 (Practical)	100
	10	1000

Mechanical Engineering

SUBJECTS	NO. OF PAPERS	FULL MARKS
Power Plant Engineering ...	1	100
Industrial Administration ...	1	100
Mechanical Handling of Materials ...	1	100
Materials of Construction ...	1	100
Machine Tools ...	1	100
Technical Dynamics ...	1	100
General Study (General Geology) ...	1	100
Engineering Economics ...	1	100
Advanced Workshop Practice (oral) ...	1	100
Mechanical Engineering Laboratory (oral)	1	100

Electives: Any two of the following:

Engineering Geology ...	1	100
Refrigeration ...	1	100
Air Conditioning ...	1	100
Motor Car Engineering ...	1	100
Hydraulic Machines & Water Power ...	1	100
Railway Engineering, Mechanical ...	1	100
		2
		200

The following two:

Production Engineering I (Quantity Production Methods) ...	1	100
Production Engineering II (Production Planning) ...	1	100
		12
		1200

Students, who have passed in all subjects of the Final Engineering Examinations, subject to rules 3 and 5 of the Examination Rules, held at the end of the Third and Fourth Year Classes, are granted Degrees in Chemical, Electrical or Mechanical Engineering, as the case may be, by the National Council of Education, Bengal.

After the publication of the Final Engineering Examination results the graduates will have to undergo practical training in recognised firms for at least one year. The College Administration will make all efforts to help the graduates in securing such practical training.

The students, who have obtained the B.M.E. Degree and want to obtain B.E.E. Degree, are to study the following subjects in their Electrical Engineering 3rd and 4th Year Classes respectively:—

Subjects for Electrical Engineering Third Year Class:

1. Differential Equations & Electrical Networks.
2. Alternating Current Machines—I.
3. Principles of Electrical Engineering—II.
4. Electrical Engineering Calculations.
5. Electrical Drawing & Design.
6. Electrical Engineering Laboratory II.
7. Electrical Measuring Instruments & Measurements.
8. Electron Tubes & Circuits.

Subjects for Electrical Engineering Fourth Year Class:

1. Electrical Power Transmission.
2. Power Utilization & Traction.
3. Electrical Power Generation.
4. A. C. Machines—II.
5. Electrical Power Distribution.
6. Electrical Engineering Laboratory—III.
7. Electrical Project & Design.
8. Abstract.
9. Electrical Drawing.
10. Any one of the following four elective subjects:
 - (i) Advanced Electrical Measuring Instruments and Measurement.
 - (ii) Switchgear and Protective Devices.
 - (iii) Industrial Electronics.
 - (iv) Electrical Machine Design.
11. Computation and Design for Elective Course.

The students, who have obtained the degree of B.E.E. and want to obtain B.M.E. degree are to study the following subjects in their 3rd and 4th year classes respectively.

Subjects for Mechanical Engineering Third Year Class :

1. Strength of Materials & Theory of Structures.
2. Theory of Machine Design.
3. Steam Engine & Boiler.
4. Steam Turbines.
5. Internal Combustion Engines.
6. Machine Drawing & Design.
7. Mechanical Engineering Laboratory.
8. Workshop Practice—Machine shop.

Subjects for Mechanical Engineering Fourth Year Class :

1. Technical Dynamics.
2. Power Plant Engineering.
3. Industrial Administration.
4. Mechanical Handling of Materials.
5. Materials of Construction.
6. Machine Tools ; and
7. & 8. Any two of the following six subjects :—
 1. Engineering Geology.
 2. Refrigeration.
 3. Air Conditioning.
 4. Motor Car Engineering.
 5. Hydraulic Machines and Water Power Engineering.
 6. Railway Engineering, Mechanical.

the following two :

1. Production Engineering I
(Quantity Production Methods).
2. Production Engineering II
(Production Planning).
9. Advanced Workshop Practice.
10. Mechanical Engineering Laboratory.
11. Machine Design.
12. Abstract.

COLLEGE OF ENGINEERING & TECHNOLOGY,
BENGAL, JADAVPUR,
CALCUTTA - 32

RECOGNITIONS

THE INSTITUTION OF ENGINEERS (India)

INCORPORATED BY ROYAL CHARTER, 1935.
8, Gokhale Road, Calcutta.
Established 1920.

Ref : 41/01067

11th October, 1944.

To

The Principal,
College of Engineering & Technology, Bengal,
P.O. Jadavpur, 24 Parganas.

Dear Sir,

With reference to your letter No. 7795 dated 18th November, 1941, I am directed to inform you that the Council of this institution have decided that the Diploma in Mechanical and Electrical Engineering of the College of Engineering & Technology, Bengal, from 1941 onwards will be recognised as exempting from Sections A & B of the Associate Membership Examination of this institution provided that the candidates have passed the Intermediate Examination in Science of a recognised University with Physics, Chemistry & Mathematics.

The question of recognition of the Chemical Engineering is under consideration.

Yours faithfully,
Sd/- C. C. SEAL,
Secretary.

Copy of letter No. 41/10219 dated 30th July, 1945 from the Secretary, Institution of Engineers (India), 8, Gokhale Road, to the Principal, College of Engineering & Technology, Bengal.

In continuation of this office letter No. 41/010167 dated 11th October, 1944, I write to inform you that the Council of this Institution have decided that the holders of the Diploma in Chemical Engineering from 1941 onwards of the College of Engineering & Technology, Jadavpur, Bengal, would be exempted from Sections A & B of the Associate Membership Examination of this Institution provided they have passed the Intermediate Examination in Science of any recognised University with Physics, Chemistry and Mathematics.

Copy of letter No. 41/9502 dated 21st April, 1947 from the General Secretary, The Institution of Engineers (India) to the Principal, College of Engineering & Technology, Bengal, Jadavpur, 24 Parganas.

I am directed to inform you that the Council of this Institution has been pleased to recognise the passing of the Degree Course of the College of Engineering & Technology, Bengal, as exempting from Sections A & B of the Associate Membership Examinations of the Institution irrespective whether the candidate has passed the Intermediate Examination or not.

Copy of letter No. 41/9128 dated 11th April, 1947 from the General Secretary, the Institution of Engineers (India), 8, Gokhale Road, Calcutta, to the Principal, College of Engineering & Technology, Jadavpur P.O., Bengal.

Sub: Recognition of the passing of the Special Degree Examination of your College as exempting from Section A & B of the Associate Membership Examination.

Ref: Your letter No. DI/15/47 dated 20th January, 1947.

With reference to the above I am directed to inform you that the Council of this Institution has been pleased to recognise the Special Degree Examination of the College of Engineering & Technology, Bengal, as exempting from Sections A & B of the Associate Membership Examination of this Institution.

Copy of letter No. 41/13628 dated 5-5-49, from the General Secretary, Institution of Engineers (India), 8, Gokhale Road, Calcutta 20, to the Principal, College of Engineering & Technology, Bengal, P.O. Jadavpur College, Calcutta.

I am directed to inform you that the Council at their meeting held in Madras on the 20th ultimo have extended their recognition of the Special Degree Examination of your College for exemption from Sections A and B of the Associate Membership Examination of the Institution upto April, 1950 examination.

UNIVERSITY OF CALCUTTA.

Resolution No. 2 of the Faculty of Engineering dated 24-3-47, confirmed by the Syndicate of the Calcutta University dated 18-4-47.

Resolved—That in the opinion of this Faculty the present degree (B.Sc. Engineering) of the National Council of Education which was introduced in 1945, be considered equivalent to the B.E. degree of the Calcutta University.

Copy forwarded for information to Dr. T. Sen, Principal, College of Engineering and Technology, Jadavpur.

GOVERNMENT OF WEST BENGAL.

EDUCATION DEPARTMENT.

RESOLUTION NO. 414 EDN.

Calcutta, the 26th October, 1947.

The College of Engineering & Technology, Jadavpur, Bengal, established and maintained by the National Council

of Education, Bengal, has been imparting Engineering, Technological and Industrial Education for the last 40 years. The training imparted in the Institution having been of the standard as obtains in other recognised Engineering Institutions and its successful students having been found of the same quality as of other recognised degree-holders, Government with the concurrence of the Government of India are pleased to declare that such degrees and diplomas of the College which exempt a candidate from Section A and Section B of the Associateship Examination of the Institution of Engineers (India), should be regarded as professionally equivalent to the Engineering degrees of the Calcutta University and of other recognised institutions in India, for the purpose of entry into Engineering services.

ORDER.—Ordered that a copy of the Resolution be published in the Gazette and all Public Service Commissions in India be informed.

By order of the Governor,
Sd/- S. K. GUPTA,
Secretary,

No. F. 2/65/44-E.

FEDERAL PUBLIC SERVICE COMMISSION.

Simla, 13-11-46.

From Rai Sahib T. C. Chopra, B.A.,
Deputy Secretary, Federal Public Service Commission.

To The Principal,
College of Engineering & Technology, Bengal,
Calcutta.

Sir, With reference to your letter No. G. 5/17/46, dated the 23rd October, 1946, I am directed to say that the Federal Public Service Commission are asking the Government of India

to include in App. I, to the rules for the combined Engineering Services Examination, the Indian Audit and Accounts etc. service examination, and the Survey of India Class II examination respectively the diplomas in Mechanical, Electrical and Chemical Engineering of the College of Engineering and Technology, Bengal, as educational qualifications securing exemption from Sections 'A' and 'B' of the Associate Membership Examination of the Institution of Engineers (India).

I have the honour to be,
Sir,

Your most obedient servant,
Sd/- V. G. R. AIYANGER,
for Deputy Secretary,
Federal Public Service Commission.

GOVERNMENT OF BOMBAY.

POLITICAL AND SERVICES DEPARTMENT.

Resolution No. 206/46.

Bombay Castle, 18th October, 1948.

Resolution:—The Government of Bombay is pleased to recognise the degrees in Electrical Engineering and Mechanical Engineering awarded by the College of Engineering and Technology, Jadavpur, West Bengal, as equivalent to the corresponding degrees of the Bombay University for the purpose of recruitment to Government Service.

By Order of the Governor of Bombay,
Sd/- M. D. BHAR,
Chief Secretary to the Govt. of Bombay,
Political and Services Department.

GOVERNMENT OF ORISSA

DEVELOPMENT DEPARTMENT.

Memo No. 6176-D. Dated, Cuttack, the 21st May, 1947.

Sub : Recognition of diploma in Electrical and Mechanical Engineering of the College of Engineering and Technology, Jadavpur, Bengal.

The Government of Orissa are pleased to decide that the Diploma in Electrical and Mechanical Engineering granted by the College of Engineering and Technology, Jadavpur, Bengal, will be considered as an adequate technical qualification for employment as Assistant Electrical and Mechanical Engineers in the Provincial Service, in the case of candidates holding such diploma who have passed the Intermediate Science Examination of a recognised University before admission to the Engineering Course.

2. Candidates who have successfully completed the Junior Technical Course in the Electrical and Mechanical Engineering at the College of Engineering and Technology, Jadavpur, Bengal, will be considered technically qualified for recruitment as Electrical and Mechanical Subordinates in the Subordinate Engineering Service of the Orissa Public Works Department.

By order of the Governor
Sd/- Illegible
Secretary to Government.

Copy forwarded to the Principal, College of Engineering and Technology, Jadavpur, Bengal, for information.

Sd/- Illegible
Secretary to Government.

GOVERNMENT OF ORISSA

DEVELOPMENT DEPARTMENT.

ORDER

Dated, Cuttack, the 7th August, 1947.

In modification of G.O. No. 6176D dated 21-5-47 the Government of Orissa, after reconsideration are pleased to decide that as degrees, instead of diplomas are being awarded to successful candidates in the Final Engineering Examinations of Jadavpur Engineering College, the word "diploma" occurring in the G.O. referred to above should be substituted by the word "degree".

Sd/- N. M. PATNAIK

For Additional Secretary to Government.

Memo No. 9546-D, dated 7-8-47.

Copy forwarded to the Principal, Jadavpur Engineering College for information with reference to his letter R2/10/47 dated 11-7-47.

GOVERNMENT OF ASSAM

Dated, Shillong, the 22nd Oct., 1946.

No. E. 3M/52/46/8367.

From—F. R. Cormack, Esq., B.Sc., C.I.E., I.S.E.,
Secretary to the Govt. of Assam in the P.W.D.
To—The Principal, College of Engineering & Technology,
Bengal, P.O. Jadavpur College, Calcutta.

Sub : Recognition of the Degree in Electrical and Mechanical Engineering.

Ref: Your letter No. R3/1/46 dated 10-5-46 to the address of the Hon'ble Chief Minister to the Government of Assam.

Sir,

I am directed to say that the Government of Assam are pleased to accord recognition to the Degrees or Diplomas in Electrical and Mechanical Engineering of your College for the purpose of recruitment of students from that College in services under the Government of Assam in the Electrical and Mechanical branches only.

I have the honour to be,

Sir,

Your most obedient servant,

Sd/- Illegible

For Secretary, P.W.D., Assam.

GOVERNMENT OF E. PUNJAB

From—R. B. Gita Ram Garg, I.S.E.,
Secretary to the Government, East Punjab,
P.W.D., Irrigation Branch.

To—The Secretary to the Government of West Bengal,
Education (Edn.) Department, Calcutta.

No. 1091 E/1718/46, dated, Simla East, the 20-1-48.

Sub: College of Engineering and Technology, Jadavpur, Bengal, Recognition of the degrees and diplomas for the purposes of recruitment to Engineering services.

Sir,

With reference to your letter No. 416(30)-Edn., dated the 16th October, 1947, copy received with East Punjab Public

Works Department, Buildings and Roads Branch, endorsement No. 2401-E, dated 13-12-47, I am directed to state that any educational qualifications as entitle their holders to exemption from passing Sections A and B of the Associate Membership Examination of the Institution of Civil, Mechanical and Electrical Engineers (London) and the Institution of Engineers (India) are recognised inter-alia for recruitment to P.S.E.I., and P.S.E.II in the P.W.D. Irrigation Branch East Punjab. Students of the College of Engineering and Technology, Jadavpur, who hold degrees and diplomas which exempt them from parts A and B of the Associate Membership Examination of the Institution of Engineers (India) are therefore eligible for entry into the Engineering Services in this Branch.

I have the honour to be,

Sir,

Your most obedient servant,

Sd/- Illegible,

Under Secretary,

for Secretary to the Govt., East Punjab,
P.W.D. Irrigation Branch.

A.S.R. 20-1-1948.

No. 321-Edn.

Copy forwarded to Principal, College of Engineering and Technology, Jadavpur, in continuation of this Department Memo No. 1126-Edn., dated the 27th December, 1947.

Education Department, Calcutta.

The 2nd February, 1948.

Sd/- Illegible,
Assistant Secretary.

GOVERNMENT OF WEST BENGAL

DEPARTMENT OF COMMERCE AND INDUSTRIES

Commerce

Calcutta, the 30th October, 1948.

No. 5265-Com.

From—Sri N. M. Majumdar, M.A.,
Deputy Secretary to the Government of West Bengal.

To—The Chairman, Licensing Board,
1, Harish Mukherjee Road, Calcutta.

Subject:—Proposed grant of exemption to the successful candidates of Electrical Engineering of the College of Engineering and Technology, Jadavpur and graduates of B. E. College from appearing at the written examination for grant of certificate of competency of supervisors.

Sir,

Having to the standard of education imparted in the Senior and Degree courses of the College of Engineering and Technology, Jadavpur, Government are pleased to grant the concessions provided for under the second proviso to regulation 19 of the Regulations for the grant of Licenses, certificates of competency and permits to electrical contractors, supervisors and electrical workmen, to the candidates for supervisor's certificates of competency who have passed out of the College of Engineering and Technology, Jadavpur in the Senior and Degree Course of Electrical Engineering and the graduates in Electrical Engineering of the Bengal Engineering College and have subsequently completed two years' practical experience in actual electrical work.

They may however be required to appear for the oral and practical tests.

Yours faithfully,
Sd/- N. M. Majumdar,
Deputy Secretary.

No. 5265/3 (I)-Com.

Copy forwarded to the Principal, College of Engineering and Technology, Jadavpur, for information with reference to his letter No. G4/53/48, dated 16-2-48 addressed to the Hon'ble Minister, Commerce and Industries, West Bengal.

Sd/- N. M. Majumdar,
Deputy Secretary.

Calcutta, the 30th October, 1948.

INDIAN POSTS AND TELEGRAPHS DEPARTMENT

From—The Director General of Posts & Telegraphs

To—The Superintendent, College of Engineering & Technology,
Bengal, P.O. Jadavpur College, 24 Parganas, Bengal.

No. S-97/1.

New Delhi, the 14th June, 1940.

Subject:—Recognition of the diplomas of the College of Engineering & Technology, Bengal, for admission to the examination for recruitment to the grades of Engineering Supervisors, Assistant Foreman, Examiners and Instrument Testers.

Sir,

With reference to the correspondence ending with your letter No. 2282 dated the 27th March, 1940, I am directed to say that the Governor General in Council is pleased to recognise the diplomas in Mechanical or Electrical Engineering granted by the College of Engineering and Technology, Bengal, at Jadavpur as a qualification for admission to the examination for recruitment to the grades of (a) Engineering Supervisors, and (b) Assistant Foreman, Examiners and Instrument Testers.

I have the honour to be etc.
Sd/- Illegible,
Senior Deputy Director General.

UNIVERSITY OF EDINBURGH

14th November, 1923.

Dear Sir,

I write to inform you that the University Court, on the recommendation of the Senatus, have granted recognition to the Bengal Technical Institute under Section IV(2) of the Ordinance controlling Degrees in Engineering, and under Section VI(2) of the Ordinance controlling Degrees in Mining. For your information I enclose a copy of the Mining Ordinance and the section referred to therein is practically the same as the section in the Engineering Ordinance.

I am,
Yours faithfully,
Sd/- THOS. F. HARLEY,
Assistant Secretary.

The Secretary,
Bengal Technical Institute,
Bengal, India.

GOVERNMENT OF HYDERABAD

From—The Secretary, Board of Chief Engineers, P.W.D.,
Iram Manzil, Hyderabad, Deccan.
(Extract from the Minutes of 68th Meeting of Board of
Chief Engineers held on 16-6-1950).
Degree of Engineering of the Jadavpur Engineering
College, Calcutta.

The letter of the Principal, College of Engineering Jadavpur for recognizing the degree of Jadavpur Engineering College was considered and it was resolved that the degree be recognized for appointments to posts in Engineering Department on the same conditions as accepted by the Institution of Engineers (India) which are as follows:—

- “1. Engineering Degree has been recognized as exempting from Sections A & B of A.M. Examination.
2. Special Degree Examination has been recognized up to the examination in April, 1950.

Further diplomas in Mechanical, Electrical and Chemical Engineering of the College have been recognized from 1941 onwards, provided the candidate has passed the Intermediate Examination in Science of a recognized University with Physics, Chemistry and Mathematics.”
No. 3248/B.M.d/-9.8.50.

Sd/- Illegible,
Secretary,

Board of Chief Engrs. P.W.D.
Copy forwarded for information to the Principal, College of Engineering & Technology, Bengal, P.O. Jadavpur College, Calcutta, with reference to his letter No. R2/32/50, dated 17-3-1950.

THE INSTITUTION OF ENGINEERS (INDIA)

Established 1920. Incorporated by Royal Charter 1935.
8, Gokhale Road, Calcutta-20.

Telegrams: ENJOIND.
Ref. No. 41/00659

Telephone: Park 1034
16th September, 1952.

The Principal,
College of Engineering and Technology, Bengal,
P.O. Jadavpur College, Calcutta—32.

Re: Recognition of Bachelor of Electrical Engineering
Degree Examination (Communication Option) of the
College of Engineering and Technology, Bengal.

Dear Sir,

I am directed to inform you that the Council in their last Meeting held in Calcutta on 30th August 1952 resolved to recognise the Bachelor of Electrical Engineering Degree Examination (Communication Option) of the College of Engineering and Technology, Bengal, for exemption from Sections A and B of the Associate Membership Examination of the Institution.

Please acknowledge receipt of this letter.

Yours faithfully,
Sd/- P. P. ADALJA,
Secretary.

COPY OF THE RECOGNITION
GOVERNMENT OF INDIA
MINISTRY OF COMMERCE

No. 104-M.I. (13)/48

New Delhi, the 9th November, 1949.

From—H. C. Sarin, Esquire, I.C.S.,
Deputy Secretary to the Government of India.
To—The Principal,

College of Engineering & Technology, Bengal,
P.O. Jadavpur College, Calcutta—32.

Subject :—Recognitions of the College of Engineering &
Technology, Bengal, for purpose of the Rules
Regulating the granting of certificates of com-
petency to engineers (including motor engineers).

Sir,

With reference to your letter No. G5/12/48, dated the 11th September 1948, on the above subject, I am directed to say that the Central Government has decided to accept half the time spent in the Degree and/or Diploma Courses of Mechanical Engineering of the College of Engineering & Technology, Bengal, subject to a maximum of two years, as approved workshop service for the purposes of the Rules regulating the granting of certificates of competency to engineers (including motor engines).

2. The Central Government has also decided to exempt such of the candidates as possess the B.M.E. degree of your institution granted as the result of an examination after 4 years course at the College, from Part A of the examinations for certificates of competency as engineers (First and Second Class).

3. Steps are being taken to amend the Rules on the subject accordingly.

Yours faithfully,
Sd/- H. C. SARIN,
Deputy Secretary to the Govt. of India.

3786:62(5412)

C 686

(NCE)