

CONTENTS

Title	Page No.
FOREWORD	3
01. Preamble	5
02. What is Accreditation?	5
03. Why Accreditation?	5
04. Who will be Accredited?	6
05. What is the Structure of the NBA?	6
06. What is the Action Plan?	7
07. The Accreditation process of NBA	8
7.1 Policies of the NBA	8
7.2 Aims and Objectives	8
7.3 Programme-level Accreditation	8
7.4 Grading of Degree Programmes	9
7.5 Provision for Withdrawal	9
08. Accreditation Parameters & Criteria	9
8.1 Organisational/Infrastructure Performance Indices	9
8.2 Academic Performance Indices	10
8.3 Industry-Interaction Indices	10
09. Steps involved in the Accreditation Process	11
10. Postscript	12

FOREWORD

The unprecedented expansion of the technical education sector in India in recent years has brought in its wake questions about the quality of the education, the competence of the graduates and their relevance to the current technical manpower needs of our country. The concurrent ISO standardisation movement in the industrial scene has highlighted the need for accrediting technical education programmes especially in terms of their role as the main suppliers of technically qualified human resources.

The All India Council for Technical Education, set up to oversee the growth and quality of technical education, established the National Board of Accreditation (NBA) in September 1994. The NBA is charged with the task of evolving a procedure for quality assessment in the technical education sector, and specifically to :

- articulate the criteria for assessment of quality
- identify parameters to quantitatively assess these criteria and assign appropriate programme-specific weightages for each
- validate the procedure by well-designed test runs
- establish appropriate benchmarks

The NBA has carried out countrywide awareness workshops, training programmes and other essential activities such as benchmarking and finalisation of the evaluation procedures and methodologies. The actual programme visits for Accreditation commenced in February 1996, and we are pleased to note that more than 125 out of about 300 programmes opting for Accreditation have been assessed.

It is heartening to note in this context that the NBA is now publishing its first field-tested documentation in the form of four manuals :

- The Primer on Accreditation : mainly to propagate the concept involved in accreditation to all the stakeholders in technical education.
- The Manual of Accreditation : outlining the evaluation policy as well as methodology for the benefit of the institutions seeking accreditation of their ongoing Programmes.
- The Accreditation Proforma : in two parts, to enable institutions seeking Accreditation of their Programmes to supply the necessary information about them.
- The Accreditor's Manual : to assist the Accreditation team in the discharge of their responsibility (available only to NBA officials).

Together, these represent the complete documentation regarding the Accreditation processes of the NBA. It is hoped that these documents will provide the students, parents, employers and the society, in general, with information on the endeavours of the NBA to provide the quality assurance and consumer protection necessary to make a judicious choice among competing educational programmes.

This careful documentation is the culmination of sustained cooperation and mutually supporting

interaction among several individuals, organisations and agencies. We would be failing in our duty if we do not place on record our gratitude and appreciation for the help we have received from the following:

- The members of the Board of the NBA and the officials of AICTE for their ready and willing cooperation, and especially the past and present Secretary, and the former Chairman of NBA, Prof. G.J.V.J. Raju, for their dedicated efforts.
- Scores of individuals, academicians and subject experts for participating in the different Meetings and Workshops arranged by the NBA, and helping to evolve an acceptable set of criteria of Accreditation, the parameters as well as the relative weightages, and the evaluation strategy to enable substantially objective assessment.
- National-level technical institutions for their significant contributions to the benchmarking exercises and to the training of evaluators.
- IIT Madras for detailed editorial help in the final presentation of the documents.

The NBA welcomes suggestions from all the stakeholders in technical education regarding improvements in its efforts at evolving a transparent and credible system of Accreditation.

Prof. H.C. Visvesvaraya
(Chairman, NBA)

Prof. (Dr.) S. Rame Gowda
(Chairman, AICTE)

ACCREDITATION OF DEGREE PROGRAMMES IN ENGINEERING & TECHNOLOGY

1. PREAMBLE

The New Educational Policy of 1986 recognised the need for a statutory body at the national level responsible for overseeing the growth and quality of Technical Education in the country. Accordingly the All India Council for Technical Education (AICTE) was established by an Act of the Parliament in 1987.

The National Board of Accreditation (NBA) was set up by the AICTE in September 1994 in order to assess the qualitative competence of educational institutions from the Diploma level to the Post-graduate level Engineering and Technology, Architecture, Pharmacy, Town Planning, and Management. The NBA is also concerned with assessing and assuring the quality of the various constituent elements of these educational institutions, such as the academic ambience, administrative infrastructure, physical resources, human resources, supporting systems like library resources, computational resources, and avenues for moulding and developing the student's personality and learning characteristics.

2. WHAT IS ACCREDITATION?

Accreditation is a process of quality assurance whereby a Programme in an approved Institution is critically appraised at intervals not exceeding six years to verify that the Institution or Programme meets the Norms and Standards prescribed by the Council from time to time. Accreditation does not seek to replace the system of award of degrees and diplomas by Universities and Boards of Technical Education. Accreditation provides quality assurance that the academic aims and objectives of the Institution are known to be honestly pursued and effectively achieved by the resources currently available, and that the Institution has demonstrated capabilities to ensure continue effectiveness of the educational Programme, over the period of Accreditation.

The major policy adopted by the NBA is to accord Accreditation, not to the Institutions as a whole, but at the Programme level, viz., the four-year under-graduate engineering degree course after 10+2, and the 3 semester M.E./ M.Tech programme after the Bachelor's degree. Furthermore, the Programmes are to be graded into categories A,B,C, & NA depending on the rating they achieve on a 1000 point scale. This is especially significant for promoting healthy competition for quality among the different degree Programmes of the same institution, as well as among similar Programmes in different institutions. Thus in a given Institution some degree Programmes may be accredited with high grades, while some weak Programmes may be rated low, or even denied Accreditation.

3. WHY ACCREDITATION?

The need and demand for Accreditation of technical education Programmes has arisen in view of the extra-ordinary quantitative growth in the number and variety of such educational Institutions and Programmes over the last 15 years. Though education in Engineering and Technology continues to be available only to approximately 5 per cent of eligible 10+2 graduates, it is not

possible to meaningfully sustain the present growth rate without a parallel exercise in quality assessment and assurance of the Programmes and Institutions. Such an exercise will ensure that the Institution indeed has, and is likely to continue to have in the near future, the necessary instruments and resources and the Programmes to produce technical manpower that not only meets the local industry requirements, but is also an acceptable human resource for the global job market in the Engineering and Technology sector.

The overwhelming aim and objective of the Accreditation is to recognise and acknowledge the value-addition in transforming the admitted raw student into a capable engineer, having sound knowledge of fundamentals and an acceptable level of professional and personal competence for ready employability in responsible engineering assignments.

4. WHO WILL BE ACCREDITED?

Programmes approved by AICTE which have graduated at least two batches of students are eligible to apply for Accreditation.

The NBA has already received proposals for Accreditation from several technical Institutions covering a wide spectrum, that includes full-fledged Technical Universities, autonomous aided Institutions, Regional Engineering Colleges, affiliated Government Colleges as well as private self-financing Engineering and Technical Institutions.

5. WHAT IS THE STRUCTURE OF THE NBA?

The present structure of the Board is as follows:

- Chairman of the Board		1
- Representation from Industry, R&D establishments and eminent educationists		7
- President, Institution of Engineers (India)	(Ex-officio)	1
- President, Pharmacy Council of India	(Ex-officio)	1
- President, Council of Architecture	(Ex-officio)	1
- Chairman/ Vice Chairman, UGC (or nominee not below Additional Secretary with background of Science/ Technical Education)	(Ex-officio)	1
- President, Association of Management Schools	(Ex-officio)	1
- Representative of IIT Council nominated by the Chairman from amongst Council members	(Ex-officio)	1
- Representative of MHRD not below Joint Secretary level, Government of India (with background of Science/ Technology)	(Ex-officio)	1
- Member Secretary	(Ex-officio)	1
Total number of members		<u>16</u>

The Chairman, AICTE may co-opt additional members to the Board.

The Chairman of the AICTE will nominate the Chairman and the members of the first Board of Accreditation. Nominations to the subsequent Boards may be made by the Chairman AICTE in consultation with the outgoing Chairman of the Board and other professionals/ experts in the field. The term of office of Chairman and members, other than ex-officio members of the Board, shall be three years. One third of the Board would continue for another term to ensure continuity. However, no member will continue for more than two terms.

The Board will work independently within AICTE, and as far as possible will be financially self-supporting. The AICTE headquarters with Regional Offices will serve as the Secretariat of the Board. The Board shall meet at such time and places and at such frequency as decided by the Chairman. However, the Board shall meet at least twice in a calendar year. There shall be Sectorial Committees consisting of Chairmen of Board of Studies and experts in respective areas of concern to assist the Board in its task. The Board shall constitute Sectorial Committees for Programmes of Technician Education in Engineering & Technology, Undergraduate studies in Engineering & Technology, Postgraduate studies in Engineering & Technology, Architecture, Town Planning, Applied Arts & Crafts, Management and Pharmacy. The Board may appoint additional Sectorial Committees for other disciplines or entrust such disciplines to one of the above Sectorial Committees. The term of office of all members of the Sectorial Committees shall be co-terminus with that of the Board. To assist the Sectorial Committee in its task, panels of experts (Visiting Teams) subject-wise shall be drawn up for undertaking the evaluation of the Programmes.

The Sectorial Committee will consider the report submitted by the Visiting Team and verify adherence of the recommendations to the policies and criteria for Accreditation enunciated by the Board, and make its own recommendation.

The Chairpersons of the Sectorial Committees or their nominated members will be invited to the Board meeting and will present the reports. The Board will finally decide on the Accreditation action.

In case of differences in the recommendations of the Visiting Team and the Sectorial Committee, the reasons in this regard shall be sent to the Board by the Sectorial Committee, while forwarding the recommendations of the Visiting Team. The Member Secretary of the Board shall communicate the Accreditation decision to the Institution, along with that part of the report showing weaknesses and strengths of the Institution or the Programme(s).

6. WHAT IS THE ACTION PLAN?

The NBA has already developed the necessary infrastructure for initiating the process of Accreditation by formulating important policy initiatives for undergraduate and post-graduate programmes not only in Engineering and Technology, but also in related areas like Architecture, Town Planning, Pharmacy, Technician Education (Diploma level) and Management.

The policy guidelines have been translated into a working plan of action by developing a systematic, logical and transparent procedure of Accreditation through a process of discussions, deliberations and national consensus. Various Accreditation parameters have been identified and benchmarks have been established for their levels of acceptance. These have already been widely disseminated during various "awareness" workshops and seminars conducted all over the country. Several national-level bodies of academic and industry experts as well as more than about a thousand participants at various levels have contributed their collective expertise to this national task.

As a prelude to the Accreditation process, the AICTE, through its various All India Boards of Studies, has revised the Norms and Standards in various sectors of Technical Education like Architecture, Computer Education, Pharmacy, Engineering and Technology, Town Planning, Technician Education, Catering Technology, etc. These norms have been approved by the

competent bodies of the AICTE, and provide a set of minimum essential requirements, both in terms of the academic infrastructure as well as physical and other resources essential for starting a new degree programme. These represent the **minimum requirements** for approval of new Programmes. It is expected that institutions desiring and deserving "Accreditation" will substantially exceed these norms. This will ensure the current competence of the Institutions to provide an adequate level of teaching and learning processes as well as a capability to retain this competence in the future.

7. THE ACCREDITATION PROCESS OF NBA

7.1 POLICIES OF THE NBA

- (i) The Board will undertake evaluation, for purposes of Accreditation, of all Institutions and Programmes approved by the Council, at regular intervals not exceeding six years; the fifth year will be the preparatory period for the next Accreditation.
- (ii) The Board will provide feedback information to the Institutions, Universities and Boards of Technical Education on innovative activities and commendable achievement by the Institutions to assist further initiatives or improvement of the quality of education.
- (iii) The Board will communicate its findings and recommendations to the Institutions concerned, and also give reasons for the intended action, including "No Accreditation".
- (iv) The Board will periodically publish a list of Accredited Programmes.
- (v) The Institution is expected to continue to maintain the standards on the basis of which Accreditation was given to its Programmes. If, at any time, the Board considers that the Accredited Programmes are no longer in conformity with the required criteria, the Accreditation can be revoked. The reasons for the revocation, however, will be communicated to the Institution, the University or the Board of Technical Education.
- (vi) The Board will undertake Accreditation of only those Programmes from which at least two batches of students have graduated, unless specifically requested by the AICTE.

7.2 AIMS AND OBJECTIVES

The chief purpose as well as the ultimate objective of the Accreditation process is twofold:

- (i) To assist all stakeholders (parents, students, teachers, educational institutions, professional societies, potential employers, Government agencies, etc.) in identifying those Institutions and their specific Programmes which meet the current Norms and Standards as well as other quality indicators specified by AICTE.
- (ii) To provide guidelines for desirable upgradation of existing Programmes and for development of new Programmes.
- (iii) To encourage the maintenance of a standard of excellence and to stimulate the process of continual improvement in Technical Education in the country.

7.3 PROGRAMME-LEVEL ACCREDITATION

The NBA has, after considerable deliberation and extensive debate, taken a conscious decision to focus the Accreditation process on the individual degree Programmes offered by an Institution rather than on the Institution itself. This is because of the fact that the aspiring students usually aim at making a career in specific engineering disciplines like *Computer Science and Engineering, Mechanical Engineering, Chemical Engineering, etc.*

Therefore, Accreditation of a degree Programme provides a more meaningful career guidance and decision support for the students. This also assists the employing industries to suitably focus their campus recruitment process discipline-wise.

7.4 GRADING OF DEGREE PROGRAMMES

Unlike many other countries, the process of Accreditation by the NBA is a multi-level one rather than a "yes" or "no" type single-level Accreditation. Individual Programmes shall be classified into one of the following categories:

- 'A' Excellent/ Very good; meets all Accreditation criteria or exceeds them.
- 'B' Good; meets the minimum criteria, and deficiencies are marginal and can be improved within a short time.
- 'C' Satisfactory; deficiencies exist, but the Institution has the potential to make up in the near future, say 1 to 2 years.
- 'NA' Not Accredited; not ripe for Accreditation, in view of the seriousness of the deficiencies.

7.5 PROVISION FOR WITHDRAWAL

The Institutions have the option to withdraw a Programme from the Accreditation process by a written request to the Visiting Team Chairman, after being informed of the strengths and weaknesses, but before the Visiting Team holds formal discussions among its members for finalising its report.

The purpose of this provision is to enable the Institutions to improve the programme quality after making the necessary investments and corrections to overcome the indicated weaknesses rather than be assigned a lower grade or not being accredited at all.

8. ACCREDITATION PARAMETERS & CRITERIA

The criteria or standards, by which individual Programmes in any Institution will be judged, have been carefully formulated so as to give a clear transparent indication of the strengths and weaknesses of the Programmes. These are classified into Indices that measure the quality of different aspects of the Programme: Organisational/Infrastructure, Academic Performance and Industry-Interaction Contributions. Under each are included typical criteria for measurement of performance.

8.1 ORGANISATIONAL/INFRASTRUCTURE PERFORMANCE INDICES:

Criterion I. MISSION, GOALS AND ORGANISATION

- (a) *Management* : Mission and Goals, Commitment, Attitude, Planning and Monitoring, Incentives, Effectiveness.
- (b) *Organization and Governance* : Leadership, Motivation, Transparency, Decentralization and Delegation, Involvement of Faculty, Efficiency.

Criterion II. FINANCIAL & PHYSICAL RESOURCES AND THEIR UTILISATION

- (a) Capital resources, Operational budget, Maintenance budget, Developmental resources and budget.
- (b) Land, Buildings, Hostels, Support services (water, electricity, communication, etc.), Office Equipment, Canteen, Transport, Medical facilities.

8.2 ACADEMIC PERFORMANCE INDICES :

Criterion III. HUMAN RESOURCES-FACULTY & STAFF

- (a) *Faculty* : Numbers, Qualifications, Recruitment Procedures, Workload (Teaching, Research, Consultancy, Administration), Attitudes and Commitment, Faculty Development (QIP, Conferences, Continuing Education, Professional Societies, Industrial Exposure, Sabbatical leave, etc.), Performance Appraisal by students/others.
- (b) *Supporting Staff (Technical/Administrative)* : Numbers, Qualifications/Skills, Recruitment Procedures, Attitudes and Involvement, Skill Upgradation, Performance Appraisal.

Criterion IV. HUMAN RESOURCES-STUDENTS

- (a) *Admission* : Central or Institutional Criteria (minimum criteria for different categories), Admission policy for lateral entry, if any.
- (b) *Academic Results* : Performance in competitive examinations, Admission to postgraduate courses, Employment of graduating students during the past year, Feedback from employers, Intake of GATE-qualified candidates, Drop-outs during the past three years.

Criterion V. TEACHING-LEARNING PROCESSES

- (a) *Syllabus* (contents, frequency of revision), Academic calendar, Registration announcement, Number of instructional days, Contact hours per week, Evaluation procedures and involvement of external examiners, System of feedback, *Laboratories, Workshops and Equipment* (facilities, maintenance and utilisation), Library, ET facilities, Instructional materials, Budget for consumables, Instructional Programme implementation (Lectures, tutorials, assessment and grading of student performance), Maintenance of course files, Workshops, Laboratory Classes, Colloquia, Projects, Teaching aids, Removal of obsolete experiments and introduction of contemporary experiments, *System of academic records*, Answer books, Project reports.

Criterion VI. SUPPLEMENTARY PROCESSES

- (a) Extra and co-curricular activities, Student counselling and guidance, Professional Society activities, Entrepreneurship development, Alumni information, Campus recruitment, Training and Placement activities.

8.3 INDUSTRY-INTERACTION INDICES :

Criterion VII. INDUSTRY-INSTITUTION INTERACTION

- (a) Industry participation in curriculum planning, Continuing education and industrial internship for faculty, Consultancy, Industrial visits and Training, Project work, Extension lectures, Placement.

Criterion VIII. RESEARCH AND DEVELOPMENT

- (a) Institutional budget for Research and Development, Academic/Sponsored/Industrial Research and Development, Publications and Patents.
- (b) Recognition as Centre of Excellence/Special Assistance/Department Support programme, Fellowships/Assistantships, Joint guidance with industry/R&D Labs/other institutions for Ph.D. theses/M. Tech. Projects, Criteria for Evaluation of Ph.D. Theses/M. Tech. Projects.

9. STEPS INVOLVED IN THE ACCREDITATION PROCESS

- STEP 1** : Submission (by the Institution) of the information and data according to the proforma provided by the NBA.
- STEP 2** : Selection of Visiting Team and Chairman by NBA.
- STEP 3** : Providing the Visiting Team with the information furnished in the proforma.
- STEP 4** : Critical study (by the Visiting Team) of the information furnished by the NBA.
- STEP 5** : Furnishing additional information sought by the Visiting Team (through correspondence).
- STEP 6** : Visit to the Institution (Laboratory, Libraries, Workshops and other infrastructure) as per schedule.
- STEP 7** : Discussions with the Management, Principal, Deans, etc., enumerating the Programme's strengths and weaknesses.
- At this stage the Institution may decide to withdraw the Programme/Programmes from consideration for Accreditation.*
- STEP 8** : Discussions among the members of the Visiting Team for finalisation of the report.
- STEP 9** : Submission of the report by the Chairman of the Visiting Team to the Sectorial Committee.
- STEP 10** : Consideration of the report of the Visiting Team by the Sectorial Committee and forwarding of the report with its observations to the NBA.
- STEP 11** : Consideration of the Visiting Team report and the Sectorial Committee observations by the NBA.
- STEP 12** : Decision of the NBA on the assignment of grade.
- STEP 13** : Reporting the decision of NBA to AICTE.
- STEP 14** : Issue of separate certificates assigning the appropriate grade to each Programme in the Institution.
- STEP 15** : Entry into the Directory (to be published annually) of the name of the Programme, the Accreditation grade and the date of issue of certificate.

After taking action on these fifteen steps, should a Programme be successful in obtaining Accreditation, the entire process will be repeated at the expiry of the specified Accreditation period.

The normal period of Accreditation shall be 5 years. The Board may however accredit a Programme for a shorter period if the overall criteria are satisfied while some weaknesses have been noticed in some critical areas.

In case an Institution wishes to appeal for a review of the action of Accreditation taken by the Board, a written application along with a prescribed fee should be sent to the Board within 30 days of the date of notification of the Board action. On receipt of such an application, and being satisfied about a prima facie case, the Chairman of the Board may appoint a special Committee consisting of a minimum of three members. A meeting of the committee will be convened wherein the Institution may be invited to present its case for review through its officers. This Committee may visit the Institution, if necessary. The recommendations of this Committee will be considered by the Board to review its earlier decision.

10. POSTSCRIPT

The guidelines and criteria adopted by the NBA lend themselves to a substantially quantitative evaluation of *major and core academic parameters in respect of faculty, students and the teaching-learning processes.*

Some element of subjective assessment cannot be avoided. However, this has been reduced to a minimum and can be assessed to a reasonable and acceptable degree so that the results of the overall Accreditation exercise are impartial and fair to the maximum possible extent.

Apart from organising awareness workshop all over the country, the AICTE has organised a number of Special Workshops to familiarise a selected group of experts with the current Accreditor's Manuals as well as simulation visits to train the evaluators at selected Institutions. These workshops have substantially confirmed the perceptions regarding benchmarking of the good undergraduate and postgraduate Programmes as per the criteria, parameters and weightages drawn up by the NBA.



CONTENTS

Title	Page No.
PREFACE	15
01. Criteria for Accreditation	17
Criterion-I : Mission, Goals & Organisation	17
Criterion-II : Financial and Physical Resources and their Utilisation	17
Criterion-III : Human Resources : Faculty & Staff	18
Criterion-IV : Human Resources : Students	18
Criterion-V : Teaching-Learning Processes	18
Criterion-VI : Supplementary Processes	19
Criterion-VII : Industry- Institution Interaction	19
Criterion-VIII : Research and Development	20
02. The Accreditation Visit 21	
The Chairperson 21	
Programme Experts	21
Activities during the Visit	21
03. Schedule of the Visiting Team	23
Day One	23
Day Two	23
Day Three	23
04. Accreditation Parameters & their Weightages	24
Mission, Goals and Organisation	24
Financial & Physical Resources and their Utilisation	24
Human Resources : Faculty & Staff	25
Human Resources : Students	26
Teaching-Learning Processes	26
Supplementary Processes	27
Industry-Institution Interaction	27
Research and Development	28
Appendix A	29

NATIONAL BOARD OF ACCREDITATION

Volume II

The Manual of Accreditation



**ALL INDIA COUNCIL FOR
TECHNICAL EDUCATION
NEW DELHI**

JANUARY 2000

PREFACE

The National Board of Accreditation (NBA) has been constituted by the All India Council for Technical Education in order to periodically conduct evaluation of undergraduate and postgraduate degree Programmes being offered in various approved technical institutions, on the basis of specified guidelines, norms, benchmarks and criteria. The basic objectives of Accreditation are :

- to assist all the stakeholders in Technical Education to identify those Institutions and their specific Programmes which meet the Norms and Standards and Criteria prescribed by the Council;
- to provide guidelines to the Technical Institutions for the improvement of existing Programmes and also for the development of new Programmes; and
- to stimulate the process of continual improvement in the Technical Education system in our country.

Though the processes of arriving at the final Accreditation decision are substantially objective, they do involve an element of subjective assessment. The procedures outlined here are neither exhaustive nor prescriptive, and the strengths and weaknesses of each Programme are to be examined in the context of the overall goal of quality assurance. The underlying philosophy and the approach should be to assist the Institutions to achieve and maintain the quality of their Programmes, and not to condemn or stifle their efforts.

The basic criteria have been formulated to ensure that

- The Programmes provide their graduates with a judicious mix of Basic Sciences, Engineering Sciences, Professional Theory, Engineering Design, Laboratory Experience, Workshop skills, Management, Humanities and Social Sciences, Oral, Written and Graphical Communication skills, Computing techniques and Project work.
- The Programmes give the graduates the capabilities to formulate and solve engineering problems through the application of basic and engineering sciences appropriate to their discipline; to design components, systems and processes to satisfy identified needs; to apply experimental or computational techniques in their professional tasks; to communicate effectively with peers and other relevant groups; to understand the impact of engineering solutions in the context of real-life constraints involving economic, social and safety, health and environmental considerations; and to sustain their professional competence through life-long learning.
- The postgraduate Programmes prepare their students to acquire mastery in a specialised area through inputs in theory, practice and a project which results in a substantial contribution to research, development or design.
- The Management of the Institution displays the requisite vision and commitment and provides the necessary resources and support to enable the achievement of the above Educational Objectives. This is one of the most crucial and important requirements for securing Accreditation of the academic Programmes.

There are several steps involved in the Accreditation process. These are listed below :

1. Submission (by the Institution) of the information and data in the Accreditation Proforma as prescribed by the NBA.
2. Selection of Visiting Team and Chairman by NBA.
3. Providing the Visiting Team with the information furnished by the Institution in the Accreditation Proforma by NBA.
4. Critical study (by the Visiting Team) of the information furnished by the Institution.
5. Furnishing any additional information sought by Visiting Team (through correspondence).
6. Visit to the Institution (Laboratories, Libraries, Workshops and other infrastructure facilities) as per schedule.
7. Discussions with the Management, Principal, Deans, faculty, students and others regarding strengths and weaknesses.

At this stage the Institution may decide to withdraw the Programme(s) from consideration for Accreditation.

8. Discussions among the members of the Visiting Team for finalisation of the Report.
9. Submission of the Report by the Chairman of the Visiting Team to the Sectorial Committee.
10. Examination of the Report of the Visiting Team by the Sectorial Committee and forwarding of the Report with its observations to the NBA.
11. Examination of the Visiting Team Report and the observations of the Sectorial Committee by the NBA.
12. Decision of NBA on assignment of Grade : 'A', 'B', 'C' or 'NA', and of the duration of validity.
13. Reporting the decision of NBA to AICTE.
14. Issue of Certificates assigning the appropriate Grade to each Programme in the Institution.
15. Entry into the Directory (to be published annually) of the name of the Programme, the Accreditation Grade, the period of Accreditation, and the date of issue of Certificate.

This Manual of Accreditation is intended to help the Institutions, seeking Accreditation of their Programmes, to understand the Accreditation process of the NBA. Institutions seeking such Accreditation should fill out and submit the Accreditation Proforma in two parts : Part I on Infrastructure and Programmes in the entire Institution, and Part II on the details of the specific Programme(s) to be accredited.

Appendix A contains special information on the Accreditation procedures of interest to Institutions and Accreditors.



CHAPTER-1

CRITERIA FOR ACCREDITATION

One of the objectives of the NBA is to encourage the Institutions to continually strive towards the attainment of excellence. Its evaluation processes are so designed as to facilitate identification of strengths and weaknesses of the Programmes under Accreditation. The NBA hopes that this will help the Institutions in improving the quality and effectiveness of their Programmes.

The evaluation process is based on a set of eight broad criteria developed through a lengthy participatory process involving more than 1000 participants concerned with Technical Education. This Chapter describes these criteria in some detail. Each criterion serves to assess a principal feature of the institutional activities and programme effectiveness. Each of the criteria is described in terms of carefully identified parameters, amenable to a substantially objective and quantitative assessment.

Institutions seeking Accreditation of their Programmes are expected to satisfy each of the criteria individually. They are expected to adhere to these criteria during the full term of Accreditation. They are also encouraged to periodically review the strengths and weaknesses of their Programmes and strive for continuous improvement.

Criterion I : MISSION, GOALS AND ORGANISATION

This criterion applies to two aspects : Management and Organisation & Governance. Every Institution should have a mission and a set of goals. Every Programme offered by the Institution should also have its objectives and goals. The mission and goals should be articulated and made known to everyone in the Institution.

The successful pursuit and realisation of the mission and goals and the means adopted to accomplish them brings out the quality of the Institution and its Programmes. The goals should be concrete and realistic within the context of the committed resources. They should define the educational and other dimensions, including scholarship, research, public service and customer satisfaction. The effectiveness and extent of achievement of the goals depend on the commitment, attitude, planning and monitoring capacity, incentives and self-appraisal policies of the management. Similarly, Organisation and Governance depend on the qualities of leadership, motivation, transparency of operation, decentralisation and delegation of power, involvement of faculty in management and planning, and general efficiency indices.

Criterion II : FINANCIAL AND PHYSICAL RESOURCES AND THEIR UTILISATION

There is a need for the Institution to be financially stable. The financial resources should be adequate to sustain not only the achievement of current educational objectives but also provide for improvements in the foreseeable future. There should be a mechanism to ensure proper financial management and a well-organised budget process.

There must be available adequate space and appropriate physical resources, including buildings, laboratories, equipments, materials, library, and other ancillary facilities. While examining the physical resources mentioned above, there is a need to ensure provisions for safety, security and hygiene. All these need capital resources, an operational budget, a maintenance budget, a development budget and

an infrastructure budget for land, building, hostels and support services, office equipment, transport and medical facilities

Criterion III : HUMAN RESOURCES : FACULTY AND STAFF

The faculty strength, cadres, qualifications and level of competence and performance should be adequate to accomplish the institutional mission and goals. The commitment, attitudes and communication skills of the faculty play an important and crucial role in successfully running the academic Programmes. This, in turn, depends on the recruitment procedures, incentives, exposure to industrial activities, faculty development programmes and workload of the faculty. Each Institution should have self-appraisal and in-house performance-appraisal mechanisms to monitor and ensure continued effectiveness.

The qualifications of the faculty relevant to the programme area are generally measured by the advanced degrees held, scholarship, creative activities and professional experience. The faculty are expected to act not only as instructors, but also as student advisors, academic planners and curriculum developers, and also to assist in institutional administration.

Faculty selection reflects the effectiveness of the management's commitment. The Institution is expected to adopt an open process for recruiting its faculty members. Adequate employment security, salaries and benefits commensurate with the position, provision for continued professional development, and periodic evaluation for their vertical mobility should be ensured and made known to all the faculty.

The workload of the faculty should be such that it should not hinder their effective performance. The Institution should protect and foster academic freedom for each member of the faculty and develop mechanisms to ensure that the faculty act responsibly, ethically and in conformity with the prescribed conditions of their employment. The faculty members should strive to maintain professional competence and scholarly pursuits.

In the case of supporting staff, besides adequate numbers and appropriate qualifications, the requirements are: hands-on experience, skills, attitudes, commitment and involvement with the institutional objectives. The recruitment procedures, performance appraisal, and incentives and rewards should be transparent and objective. The inter-personal relations and interactions among and between faculty, supporting staff and students constitute an important ingredient in achieving the institutional goals.

Criterion IV : HUMAN RESOURCES : STUDENTS

The admission policies and procedures should be objective and transparent. The number of qualified candidates in national/state level tests, the number admitted and drop-outs are some of the factors that reflect the institutional effectiveness. The evaluation procedures, academic results and time taken for completion of these requirements are important parameters. The graduation requirements should be made known to every student. The degree awarded should appropriately reflect student's attainments. Information with regard to employment of graduates and feedback from the employers help the institution to reorient its goals so as to enhance effectiveness.

Criterion V : TEACHING-LEARNING PROCESSES

Each undergraduate Programme should embody general and specialised professional content of adequate breadth and depth, and should include appropriate Humanities and Science components. The core of the main Programme should concentrate on the acquisition of knowledge and skills in the specific discipline, and also ensure exposure to inter-disciplinary areas. There should also be an effective relationship between the curricular content and practice in the field of specialisation. In addition, the graduates successfully completing a Programme should demonstrate their competence in oral communication, scientific and quantitative reasoning, critical analysis, logical thinking, creativity and capacity for self-learning.

Postgraduate degree Programmes should be designed to give students a mastery in their specialised

field of study. They should have coherent curricula and should enable the students to advance substantially beyond the educational requirements of the undergraduate degree Programmes.

The Institutions offering both undergraduate and postgraduate degree Programmes should assess the relationship and interdependence of the two levels, and utilise the resources of both for collective improvement. Postgraduate Programmes should not be offered unless resources and expectations greatly exceed those required for the corresponding undergraduate Programme.

The academic calendar, number of instructional days, contact hours per week, student evaluation and feedback are some of the important aspects in evaluating teaching-learning processes. Effective teaching-learning processes include the development of practical skills through laboratory experiments, workshop practice and operation of modern equipments. They also require the inculcation of computing skills and the availability of extensive library and educational technology facilities. The budget provision to meet the expenditure for the consumables required in the laboratories and workshops is one of the indicators of the extent of hands-on practice that can be given. Implementation of the instructional Programme, lectures, tutorials, student-teacher interactions, group discussions, seminars and laboratory work have a direct bearing on the effectiveness of the teaching-learning processes. Maintenance of course files by the teachers will help in assessing the effectiveness of the teaching and learning processes.

Criterion VI : SUPPLEMENTARY PROCESSES

The Institution should provide an environment which fosters not only the intellectual, but also the personality, development of its students. It should have personality development opportunities provided through co-curricular and extra-curricular programmes and student services. These opportunities are to enable the students to become responsible members of the society. The services and facilities must be readily accessible to the students.

The students undergoing the Programme should have access to facilities for career development, counselling and health education. Opportunities to develop leadership qualities and participation in seminars and group discussions should be created.

The Institution offering the Programme should ensure that individuals responsible for co-curricular activities are well trained with work experience and possess personal qualities required to deal with the needs of the students effectively. Facilities and funding should be adequate to create and maintain the student services. Policies concerning student responsibilities and grievance-redressal procedures are to be clearly stated and publicised. There should be a mechanism for regular and systematic evaluation to assess the fulfilment of the co-curricular goals and student needs.

Counselling and guidance, professional society activities and entrepreneurship development are some of the supplementary processes which need to be promoted. Substantial feedback from employees and alumni should be obtained to assess the effectiveness of the academic Programmes.

Criterion VII : INDUSTRY-INSTITUTION INTERACTION

Industry participation in curriculum planning, consultancy, project work and extension lectures are essential to achieve the professional goals of the academic Programmes in Engineering and Technology. For effective exposure to the world of work this interaction is vital.

The curriculum has to be updated at regular intervals, keeping in view the needs of the industry and the profession, particularly in the context of rapidly changing technologies. There is considerable expertise available with the teachers which can be utilised by the industry for consultancy. This, in turn, will help the teachers to gain knowledge of the latest industrial practices.

The fast-changing technologies also call for Continuing Education Programmes for personnel from industry. Similarly, industrial-internship for faculty will give them a sound exposure to the industrial practices.

Industrial visits and industrial training are essential for creating professionalism in the students, and will help them in securing placement in appropriate industries. A Placement & Training cell is necessary for placement of the students and for arranging their industrial training. Feedback from the industry through this cell to the faculty will go a long way in improving the quality of the teaching-learning processes.

Criterion VIII : RESEARCH AND DEVELOPMENT

In the case of Undergraduate Programmes, teachers should be involved in projects and quality improvement Programmes in research institutions/university departments. Such an involvement will not only improve the teaching-learning processes but also enhance the quality of project work.

In the case of Postgraduate Programmes, the aim should be to attain the stature of a Centre of Excellence. Receipt of Special Assistance Department Support Programme/COSIST or other such support is an indication of the quality of the Postgraduate Programmes. The department should also undertake academic/sponsored industrial R & D projects. Joint guidance with industry/R&E laboratories/other institutions for Ph.D. theses/M.Tech. projects will not only develop close interaction between department, industry and R & D labs but will also enhance the quality of research. The criteria for evaluation of the Ph.D. theses and M.Tech. projects are important indicators of the quality of research work. Publications, citations, patents and resource allocation are other indicators of the effectiveness of research work relevant to the postgraduate Programmes.



CHAPTER-2

THE ACCREDITATION VISIT

The Visiting Team consists of a Chairperson and two Programme Experts (one of them from Industry/user organisation). Visiting Team members are either senior academics or engineers/technologists who are selected on the basis of their high standing in the profession, capacity to assess curricula, competence in appraisal based on overall objectives and performance towards the achievement of set goals.

THE CHAIRPERSON

The Chairperson of the Visiting Team has the overall responsibility for the Accreditation visit. The Chairperson assigns duties to each team member keeping in view the overall perspective. He should be familiar with the Accreditation process and gather in advance the earlier reports, if any. He fixes the date of visit, arranges the accommodation and venue for the meeting, and works out the details of the Visit in consultation with the authorities of the Institution. He has the responsibility for the preparation of the consolidated team report.

One of the members of the team will be identified to take on the role of the Chairperson if the team Chairperson is unable to undertake the Visit due to some unforeseen circumstances.

PROGRAMME EXPERTS

This Programme experts are responsible for evaluation of individual Programmes. Usually there is one expert for each Programme from the academic field, and one from industry/user organisation. The latter can sometimes serve as an expert for more than one Programme depending on his competence and abilities. However, in case two Programmes with substantial duplication in course-content are being offered within a department, a single set of two experts may be chosen for both the Programmes. For Programmes in emerging or inter-disciplinary areas there can be more experts, depending on the need.

The duties of the Programme experts include evaluation with reference to the eight criteria given in Chapter-1, thorough physical verification of infrastructural facilities, records, interviews with students and other activities which they deem necessary for total performance appraisal. In order to provide transparency to the process, Observers may be appointed by NBA, and the Visiting Team Chairman will be informed accordingly.

In case any Visiting Team member is unable to undertake the visit due to circumstances beyond his/her control, the Chairperson will nominate another expert keeping in view the guidelines for selection of experts. The Chairperson, after mutual agreement on the dates for the Visit, shall proceed with the arrangements for the Visit, and provide the information obtained from the Institution to the members.

ACTIVITIES DURING THE VISIT

Normally, the Accreditation team requires a 3-day Visit in order to complete the assessment process. Recent examination papers, laboratory instruction sheets, student transcripts and student reports, and such other materials that may be of relevance in assessing the student performance, should be made available to the experts during their Visit. Textbooks, teaching assignments and lecture files which the faculty use for instruction and continuous evaluation of students should also be made available for the perusal of the team. Qualitative factors such as professional attitudes, staff commitment, intellectual atmosphere and morale should also be assessed and quantified to the extent possible based on the

weightages furnished in Chapter-4. Specifically the following activities are expected to be completed by the Visiting Team during the visit.

1. Discussions with appropriate Senior Administrative Officers who form part of the Management, including the Vice-Chancellor (in case of University Constituent College)/ Principal/Dean/Head of the Department of the concerned Programme.
2. Discussions with groups of faculty members, and, if necessary, individuals to assess professional attitudes, commitment, and morale and intellectual atmosphere.
3. Discussions with students and alumni, if available, for feedback.
4. Discussions with supporting staff and the service departments.
5. Visits to laboratories, library, computer centre, centre for extension activities, placement cell, sports and medical facilities.
6. Perusal of all the documents furnished by the Department/Institution.
7. A final meeting with Senior Administrators and others referred to in (1), to explain the strengths and weaknesses of the Programme, as observed by the team. If the Institution expresses a desire to withdraw a Programme from being considered for Accreditation, it may be permitted to do so at this stage.



CHAPTER-3

SCHEDULE OF THE VISITING TEAM

The following is a typical schedule for the visits. However, depending on the needs and requirements of the Institution, the schedule may be altered *by the Chairman*. Members are encouraged to have post-dinner meetings among themselves every night during their stay.

DAY ONE

- : 09.00 A.M. Discussions among the Members of the team.
- : 11.00 A.M. Discussions with Administrators.
- : 11.30 P.M. Discussions with groups of faculty members.
- : 01.00 P.M. Working Lunch.
- : 02.30 P.M. Discussions with students.
- : 04.00 P.M. Discussions with supporting staff and staff of service departments.
- : 05.30 P.M. Tea.
- : 06.30 P.M. Discussions among Visiting Team members at the place of their stay.

DAY TWO

- : 09.00 A.M. Visit to Library, Computer Centre, Support Departments, Sports Complex, Health Facilities, Placement Cell, Residential Area, etc.
- : 01.00 P.M. Working Lunch.
- : 02.00 P.M. Visits to the laboratories of individual Programmes by Programme Experts. Examination of documents by the Chairman/General Experts.
- : 05.30 P.M. Tea.
- : 06.30 P.M. Exchange of views among Team Members at the place of stay.

DAY THREE

- : 09.00 A.M. Discussions with Administrators and others concerned with the Institution/ Programme.
- : 10.00 A.M. Discussions among the Members and comparison of individual draft documents.
- : 11.30 A.M. Seeking additional information, if deemed necessary, subsequent to discussions.
- : 01.00 P.M. Working Lunch
- : 02.00 P.M. Final meeting to explain the strengths and weaknesses.

CHAPTER-4

ACCREDITATION PARAMETERS & THEIR WEIGHTAGES

Each of the criteria described in Chapter 1 have been broken down into parameters, and weightages have been assigned to these parameters by the NBA. This chapter describes these parameters and the proposed weightages, which are different for UG and PG programmes.

INFRASTRUCTURAL PERFORMANCE INDICES

		(UG)	(PG)
I.	MISSION, GOALS AND ORGANISATION	100	70
<p><i>Pointers :</i> <i>Mission appropriate for higher education; vision for the future, unambiguously verbalised; purpose realistic and within the resource context; mission and purpose widely understood and implicitly accepted by faculty and administrators; involvement of faculty in decision-making/planning/ rojections; efficiency of governance in ensuring quality.</i></p>			
I.	1	Management	(50)
	a)	Mission & Goals	
	b)	Commitment	
	c)	Attitude	
	d)	Planning and Monitoring	
	e)	Incentives	
	f)	Effectiveness	
I.	2	Organization and Governance	(50)
	a)	Leadership	
	b)	Motivation	
	c)	Transparency	
	d)	Decentralization and Delegation	
	e)	Involvement of faculty	
	f)	Efficiency	
II.	FINANCIAL & PHYSICAL RESOURCES AND THEIR UTILIZATION	100	80

Pointers : *Financial resources sufficient for running the Programme, maintaining and upgrading*

	f)	Faculty Development (QIP, Conference, Continuing Education, Professional Societies, Industrial Exposure, Sabbatical leave, etc.)	(50)	(50)
	g)	Performance Appraisal		
III.	2	Supporting Staff (Tech./Admin.)	(30)	(30)
	a)	Numbers		
	b)	Qualifications/Skills		
	c)	Recruitment Procedures		
	d)	Attitudes and Involvement	(20)	(20)
	e)	Skill Upgradation		
	f)	Performance Appraisal		

IV. HUMAN RESOURCES : STUDENTS **100** **100**

Pointers : *Orderly and ethical procedures for admission of students; number of students qualifying in national/state level examinations like GATE and securing PG admissions as an indicator of quality of teaching/learning processes; feedback from alumni.*

IV.	1	Admissions	(20)	(20)
	a)	Central or Institutional		
	b)	Criteria (minimum criteria for different categories)		
	c)	Admission Policy for lateral entry, if any		
IV.	2	Academic Results	(30)	(30)
IV.	3U	Performance in Competitive Examinations		
IV.	4U	Admission to Postgraduate Courses		
IV.	5	Employment of graduating students during the past year	(50)	(50)
IV.	6	Feedback from employers		
IV	7P	Intake, number of GATE-qualified candidates and drop-outs during the past three years		

V. TEACHING-LEARNING PROCESSES **350** **250**

Pointers : *Broad areas of human knowledge, theories and methods of inquiry besides in-depth study of the identified area; clarity and relevance in curricula; pass-outs to demonstrate in-depth understanding of knowledge/practice; examination of student answer-books, grades, question-papers, team-work and design projects, interview with students and faculty to validate impressions from data.*

V.	1	Syllabus	(100)	(80)
V.	2	Academic calendar; number of instructional days; contact hours per week	(50)	(40)
V.	3	Evaluation procedures and feedback		
V.	4	Laboratories, Workshops and Equipment (facilities, maintenance and utilisation)		
V.	5	Computing facilities, maintenance and utilisation	(100)	(80)
V.	6	Library		
V.	7	ET facilities, Instructional materials		
V.	8	Budget for consumables	(100)	(50)
V.	9	Implementation of the Instructional Programme (Lectures, Tutorials, Maintenance of Course Files, Workshops, Lab. Classes, Colloquia, Projects, Teaching aids)		
V.	10	Removal of obsolete experiments and introduction of contemporary experiments		

VI. SUPPLEMENTARY PROCESSES

50

50

Pointers : *Personality development opportunities; services and facilities accessible to students; career counselling, health education; grievance redressal procedures; professional society activities; entrepreneurship development; feedback from alumni & employers.*

- VI. 1 Extra & co-curricular activities
- VI. 2 Student counselling and guidance
- VI. 3 Professional Society activities
- VI. 4 Entrepreneurship Development
- VI. 5 Alumni Information

VII. INDUSTRY-INSTITUTION INTERACTION

70

100

Pointers : *Industry's role in Curriculum planning; consultancy and extension lectures; continuing education and industrial internship; industrial visits and industrial training.*

- VII. 1 Industry participation in curriculum planning
- VII. 2 Continuing education and industrial internship for faculty
- VII. 3 Consultancy
- VII. 4 Industrial visits and Training
- VII. 5 Project work
- VII. 6 Extension lectures
- VII. 7 Placement

Pointers : ***QIP programmes; faculty research involvement and project quality; sponsored projects; recognition as Centre of Excellence; Masters' and Ph.D. guidance jointly with industry; evaluation criteria for theses; publications, citations and patents.***

- VIII. 1** **Institutional Budget for Research and Development**
- VIII. 2** **Academic/Sponsored/Industrial Research and Development**
- VIII. 3** **Publications and patents**
- VIII. 4P** **Recognition as Centre of Excellence/Special Assistance/Department Support Programme**
- VIII. 5P** **Fellowships/Assistantships**
- VIII. 6P** **Joint guidance with industry/R&D labs/other institutions for Ph.D. theses/M.Tech. Projects**
- VIII. 7P** **Criteria for evaluation of Ph.D. Theses/M.Tech. Projects**

U **Applicable for UG Programme only.**

P **Applicable for PG Programmes only.**



APPENDIX A

SPECIAL INFORMATION FOR INSTITUTIONS AND ACCREDITORS

- a) **The Accreditation Proforma should be completed in all respects and returned to the Board along with the prescribed application fee, at least three months before the process of Accreditation desired, and addressed to :**

**The Member Secretary
National Board of Accreditation, AICTE
Indira Gandhi Sports Complex
I.P. Estate, New Delhi-110002**
- b) **The Visiting Team will be identified and the visits will be scheduled within three months of the receipt of the completed proforma from the institution.**
- c) **The Chairperson of the Visiting Team will correspond with the Head of the Institution for all arrangements to be made for the Visiting Team.**
- d) **The Board will defray all the expenses of the members of the Visiting Team.**
- e) **The Visiting Team will discuss with the Head of the Institution the salient observations and findings concerning the Institution and the Programmes which are offered for Accreditation. The essential purpose of this final meeting is to provide the Head of the Institution an opportunity to correct any misunderstanding on the part of the Visiting Team which might have inadvertently influenced their observations and findings. However, under no conditions should any member of the Visiting Team disclose the likely recommendations regarding Accreditation.**
- f) **Samples of question papers of University/Board examination and internal tests along with available student answer books, laboratory manuals/instructions and reports should be made available during the visit for all the principle courses in the main disciplines and the supporting areas. Course syllabi, text books followed and resource materials should also be made available for consideration by the Visiting Team members. Student records will be reviewed to determine if their learning experience is consistent with the Programme of study described in the curriculum document.**

The completed application on the prescribed form must be accompanied by a crossed demand draft as Accreditation fee payable to "AICTE A/c NBA" at New Delhi. The present fee structure is given in the next page. The NBA reserves the right to change this fee structure from time to time.



ACCREDITATION FEE STRUCTURE

1. Institution offering
Conventional Programme
e.g. Mechanical Engg.
Civil Engg.
Electrical Engg.
Electronics Engg.
Computer Engg., etc.

and

Institution offering
Emerging area Programmes
e.g. Chemical Technology
Petrochemical Technology
Metallurgy, etc.
 2. For Single Programme
Institutions and Institutes
which are seeking
accreditation
upto Two programmes
- Rs. 50,000/-
for each
Programme
- Rs. 1,00,000/-



NATIONAL BOARD OF ACCREDITATION

Volume III The Accreditation Proforma



**ALL INDIA COUNCIL FOR
TECHNICAL EDUCATION
NEW DELHI**

JANUARY 2000

PREFACE

Institutions seeking the Accreditation of their Programme(s) by the NBA should address a letter to the Member Secretary in a prescribed format allowing for a processing time of least three months. They should also provide information about their Institution and Programme(s) in a Prescribed format. This booklet prescribes the format for both.

The checklist of documents for NBA to consider an Accreditation request is as follows :

- 1. Letter addressed to The Member Secretary, NBA as per format given on pages i to iii.**
- 2. Six copies and one floppy of information contained in Parts I and II of "The Accreditation Proforma" (separately for each Programme). Each part of the Proforma should include the Certificate duly signed by the appropriate authorities.**
- 3. A brief resume of the Institution's progress and future plans.**
- 4. Layout of the buildings including roads etc. (to scale) on A4 size paper.**
- 5. Latest copy of the Prospectus of all Programmes, and a copy of the latest Calendar of the Institution.**
- 6. Copy of the Act/Memorandum/Bye-laws for the establishment of the Institution.**
- 7. List of members of the Statutory Committees in accordance with the Act/Memorandum/Bye-laws.**
- 8. List of enclosures.**

Institutions are requested to write "NA" wherever information sought is not applicable to the Programmes/Institution.

**FORMAT OF LETTER FROM INSTITUTION TO NBA
SEEKING ACCREDITATION OF ITS PROGRAMME(S)**

Code :
(For instructions, please see p.iii)

To

The Member Secretary
National Board of Accreditation
All India Council for Technical Education
Indira Gandhi Sports Complex, I.P. Estate,
New Delhi - 110 002.

Sir,

We request you to consider the following Programme(s) of our Institution for Accreditation:

1. Name of the Institution _____
2. Full Postal Address of Institution _____

3. Tel.No. _____
4. Fax No. _____
5. Name of University / Board affiliated to (if applicable) _____
6. Nature of Programmes UG (Engg. / Tech.)
 PG (Engg. / Tech.)
 Pharmacy
 Architecture
 Management
 Town Planning
 Applied Arts & Crafts
 Technician Edn. (Engg. / Tech.)
7. Programmes to be Accredited _____

We have submitted six copies and one floppy of information contained in The Accreditation Proforma Part-I and Part-II (separately for each Programme / Discipline as listed in 7 above).

We have paid the Accreditation fees (payable to "AICTE-A/c NBA" at New Delhi) by crossed demand draft no. _____

Date _____ Amount _____

Bank _____ Place _____

Yours sincerely,

SIGNATURE OF
THE HEAD OF INSTITUTION

DATE _____

PLACE _____

SEAL

INSTRUCTIONS FOR CODING

I II III IV V VI VII VIII IX X XI XII

CODE OF INSTITUTE

BLOCK I :-

Regions	: Central	(1)	Southern	(5)
	: Eastern	(2)	South-Western	(6)
	: Northern	(3)	Western	(7)
	: North-Western	(4)		

BLOCKS II & III

Eastern Region	: Andaman & Nicobar	(01)	Mizoram	(06)
	: Arunachal Pradesh	(02)	Nagaland	(07)
	: Assam	(03)	Sikkim	(08)
	: Manipur	(04)	Tripura	(09)
	: Meghalaya	(05)	West Bengal	(10)
Northern Region	: Bihar	(01)	Uttar Pradesh	(02)
North Western Region	: Chandigarh	(01)	J & K	(05)
	: Delhi	(02)	Punjab	(06)
	: Haryana	(03)	Rajasthan	(07)
	: Himachal Pradesh	(04)		
Southern Region	: Andhra Pradesh	(01)	Tamil Nadu	(03)
	: Pondicherry	(02)		
South Western Region	: Karnataka	(01)	Lakshadweep	(03)
	: Kerala	(02)		
Western Region	: Daman & Diu	(01)	Gujarat	(03)
	: Goa	(02)	Maharashtra	(04)

BLOCK IV :- Status of Institution / Department

TECHNOLOGICAL UNIVERSITY	(H)	DEEMED UNIVERSITY	(U)
UNIVERSITY DEPT.	(D)	REC	(R)
NATIONAL INSTITUTE	(N)	GOVERNMENT	(G)
UNIVERSITY COLLEGE	(C)	AIDED	(A)
SELF-FINANCING	(S)		

BLOCK V & VI :- Sectors

Technician Education in Engg & Technology	(TE)
Under Graduate studies Engg. & Technology	(UG)
Post Graduate studies in Engg. & Technology	(PG)
Architecture	(AR)
Town Planning, Applied Arts & Crafts	(TP)
Management	(MG)
Pharmacy	(PH)

BLOCKS VII TO XII :-

Abbreviated / short name of the Institute or Initials of the Institute; e.g.,
SANT LONGOWAL INSITUTE OF ENGINEERING & TECHNOLOGY

: 4 : 0 : 6 : N : U : G : S : L : I : E : T :

NATIONAL BOARD OF ACCREDITATION

(All India Council for Technical Education, New Delhi)

ACCREDITATION PROFORMA

PART-I

Infrastructure and Programmes (For entire Institution)

Submitted by

(Name of the Institution)

Year

NATIONAL BOARD OF ACCREDITATION
Indira Gandhi Sports Complex, I. P. Estate, New Delhi - 110 002
Phone : 3379010-13, 3379015-19, 3379027, Fax : 011-3379027
e-mail : ikbhat@aicte.ernet.in

ACCREDITATION PROFORMA

PART-I

Contents	Page No.
01. General Information	41
02. Administration and Feedback	41
03. Objectives and Self-Appraisal	42
04. Academic Information	42
05. Admission and Calendar	44
06. Evaluation and Examination	46
07. Information on Teaching Faculty	46
08. Staff Qualifications (for Entire Institution)	48
09. Infrastructure Facilities	49
10. Accommodation	54
11. Fee Structure and Other Costs for Students for each Programme	55
12. Financial Statement	56
Certificate	58

1.0 GENERAL INFORMATION

- 1.1 Name and address of the Institution:**
- 1.2 Type of Institution:**
- 1.3 In case of a Private Institution, full postal address of the Trust / Society, and name of the Chairman along with telegraphic address, fax and phone numbers.**
- 1.4 What is the management structure of the Institution?**
- 1.5 Date of establishment of the Institution.**
- 1.6 Name of affiliating University / Body with postal address.**
Also give the names and phone numbers of the Vice-Chancellor and Registrar or equivalent officers.
- 1.7 Name and title of the Head of the Institution.**

2.0 ADMINISTRATION AND FEEDBACK

- 2.1 Give the organisational chart, with pay structure and qualifications.**
- 2.2**
 - (a) Give details of buildings and space allotted for administrative purposes.**
 - (b) What are the future plans for the land and buildings development? How are the financial resources planned to be generated for development?**
 - (c) Are the infrastructure and other facilities available being used exclusively by your Institution or shared with some other institution(s)? If shared, give details.**
 - (d) Facilities for extra-curricular & co-curricular activities: Please list out the facilities available and achievements during the last 5 years.**
- 2.3**
 - (a) Please give information about :**
 - (i) Admission of your graduates to higher studies (for the past 5 years).**
 - (ii) Details of the performance of your students in National or State level competitive examinations - such as GATE / UPSC / State PSC / other competitive examinations for class I posts (for 3 years).**
 - (b) Is there a Placement and Training section in your institution? If so, what is the staffing pattern and what are the functions of the section?**
 - (c) Do you have an Alumni Association? Give details, including those of any Chapters.**
 - (d) How many Alumni have become entrepreneurs during the past 5 years?**
 - (e) How do you obtain feedback from employers and alumni on the usefulness, adequacy and relevance of the academic programmes, and how do you use this for improving your programmes?**

3.0 OBJECTIVES AND SELF-APPRAISAL

- 3.1 (a) What are the principal long-range goals of your Institution? To what extent are these being achieved? What are the major constraints encountered?
- (b) What are the principal short-range goals of your Institution? To what extent are they being achieved? What are the major constraints encountered?
- (c) In what respects have the pattern and philosophy of Technical Education changed in your Institution during the past five years?
- (d) Summarise major developments and / or progress achieved during the past five years.
- (e) Indicate any significant plans under consideration for future development of teaching and research programmes.
- (f) How do you involve professionals from industry and other employment sectors in your activities like : setting objectives / goals for your programmes / institution, developing programmes and curricula, student training and student evaluation?
- (g) What are the principal strengths of your Institution? What are the principal weaknesses of your Institution?

Note : Please give information for item (g) in a separate sheet not exceeding 100 words.

4.0 ACADEMIC INFORMATION:

4.1 Academic Programmes being conducted:

Programme	Field / Specialisation	Full / Part-time	Year of starting	Duration (yrs)	Sanctioned intake	No. on rolls	Level
Under-graduate							
	B.E						
	B.Tech.						
	B.Arch.						
Post-graduate							
	P.G.Diploma						
	M.Tech.						
	M.E.						
Research							
	Ph.D.						
	Others						

Note : If sandwich programmes are offered by the institution, please furnish details.

4.2 Title of Academic Programmes for which Accreditation is sought:

Name	Full / Part Time	Year of starting	Duration	Sanctioned Intake	Actual Strength
<hr/>					
<hr/>					
<hr/>					

4.3 Whether the Programmes offered by the Institution are approved by the AICTE?

Programme / Degree	Field / Specialisation	Reference of AICTE Approval letter
<hr/>		
<hr/>		
<hr/>		
<hr/>		

4.4 If any course conducted is not approved by AICTE, please state reasons for the same.

Programme / Degree	Field / Specialisation	Reasons
<hr/>		

5.0 ADMISSION AND CALENDAR (attach latest Prospectus):

5.1 Criteria for Admission

Type of Programme	Qualifying Examinations	Minimum Percentage		If(a) & (b) are considered give the ratio (a) : (b)
		On the basis of marks of qualifying Examination only (a)	Entrance Examination Aptitude test only (b)	
(a) Degree				
(b) P.G. Diploma				
(c) M.E., M.Tech.				
(d) Ph.D.				
(e) Any other				

5.2 Is reservation followed as per rules?
If yes, furnish details. YES / NO

5.3 Is admission also made by lateral entry to any course?
If yes, give details of entry qualifications for lateral admission,
and the percentage of total seats reserved. YES / NO

5.4 What is the policy governing :

(a) transfer of students from other institutions ?

(b) branch transfer in your Institution ?

5.5 (a) Calendar of admissions / academic programmes (latest calendar year)

i. Date of notification of admissions :

ii. Date of issue of application form and prospectus :

iii. Last date for receipt of the filled in application form :

iv. Date of tests / interviews, etc :

v. Finalisation of admission list :

vi. Last date of admission

vii. Date of commencement of academic programmes :

5.6 (a) Academic schedule:

	No. of working days prescribed per semester/term	No. of actual working days per semester/term	No. of teaching days per semester/term	No. of preparatory days for examinations	No. of days for examinations
1st Semester / term					
2nd Semester / term					

5.6 (b) Calendar of Examinations & Results

- i. Date of commencement of Main Examinations :
- ii. Date of declaration of results :
- iii. Date of commencement of Supplementary Examinations. :
- iv. Date of declaration of results :

5.7 (a) Break-up of Curriculum Structure

The break-up of the formal contact hours of 27 to 33 hours / week within a total of 36 to 40 working hours / week is to be given.

	As per AICTE Prescribed Norm	Actual
i. Languages, Social Sciences, Humanities and Introduction to Management	:	
ii. Basic Sciences (General)	:	
iii. Engineering Sciences and Technical Arts	:	
iv. Professional subjects (specific discipline-based)	:	
v. Open electives (discipline-based)	:	
vi. Projects	:	
(b) Weekly Work Schedule		
Institutional working hours / week	:	
Student contact hours in formal learning	:	
Student-centered activities (Library studies, Guidance and Counselling, Seminars etc.)	:	

5.8 Describe the opportunities for co-curricular and extra-curricular activities provided to the students.

6.0 EVALUATION AND EXAMINATIONS:

- 6.1 Describe the methodology adopted for monitoring and evaluating the progress of students.
- 6.2 Is any work experience / practical training prescribed as part of the academic programme ?
- 6.3 When are the students informed of the evaluation of their work experience / practical training and progress?
- 6.4 Explain the methodology of assessment, indicating the weightage for sessional / external / final examinations.
- 6.5 Describe the academic regulations concerning promotion and carry-over system.

7.0 INFORMATION ON TEACHING FACULTY :

7.1 Faculty strength for various levels of programmes:

	Sanctioned strength				No. in position			
	UG	PG	Others	Total	UG	PG	Others	Total
Full-time								
Part-time								
Visiting								

7.2 Number of vacancies during the last 5 years; year-wise :

Name of post	Date on which post fell vacant

7.3 Number of teaching faculty in position :

Faculty Cadre	Number Sanctioned	Number in position	State / Univ. norms	AICTE norms
Principal Professor				
Associate Professor				
Asstt. Professor				
Sr. Gr.Lecturer				
Senior Lecturer				
Lecturer				
Visiting faculty				
Others* :				

* Please indicate separately categories such as Honorary Professors, Emeritus Professors, Emeritus Fellows etc.

7.4 Typical Work load for Teaching Faculty (in hours)*

Faculty Cadre	T	R	C	A	O	Total
1. Principal / Director						
2. Professor						
3. Associate Professor						
4. Asst. Professor/ Reader						
5. Sr. Grade Lecturer						
6. Senior Lecturer						
7. Lecturer						
8. Visiting Faculty						
9. Others						

T-Teaching; R-Research; C-Consultancy; A-Administration; O- Other.

* Please attach a copy of a typical Time-Table

7.5 Recruitment / Promotion policies (including reservation policy for recruitment)

7.6 Faculty development programmes.

7.7 Professional development programmes for supporting staff

7.8 Faculty / staff appraisal system

7.9 Scale of pay and allowances for each category

7.10 Other service benefits such as LTC, medical reimbursement, housing, etc.

7.11 Retirement / post-retirement benefits.

8.0 STAFF QUALIFICATIONS (FOR ENTIRE INSTITUTION) :

Category	Total	Minimum Number	Specify any discrepancy from qualifications prescribed by AICTE, if any	Scale of Pay
Teaching Staff				
Principal / Director				
Professor				
Associate Professor				
Asst. Professor / Reader				
Sr. Grade Lecturer				
Senior Lecturer				
Lecturer				
Computer Centre Staff				
(a) System Manager				
(b) System Analyst				
(c) Computer Programmer				
(d) Computer Operator				
(e) Others (specify)				
Workshop Staff				
(a) Workshop Superintendent				
(b) Foreman / Instructor				
(c) Assistant Instructor				
(d) Skilled Assistant				
(e) Others (specify)				
Laboratory Staff				
(a) Technical Assistant / Lab Technician				
(b) Laboratory Asst. / Skilled Assistant				
(c) Others (Specify)				

Library Staff

- (a) Librarian
 - (b) Asst Librarian
 - (c) Lib. Attendant
-

Maintenance Staff

- (a) Maintenance Engineer
 - (b) Maintenance Supervisor
 - (c) Technician
-

Sports Staff

- (a)
 - (b)
 - (c)
-

Administrative Staff

- (a)
 - (b)
 - (c)
-

Other Staff

- (a)
 - (b)
 - (c)
-

9.0 INFRASTRUCTURE FACILITIES:

9.1 Extent of Land

9.2 List of Departmental / Administrative Buildings

Name of the Dept.

Building Area Sq.m

9.3 Laboratories common for all programmes
 (e.g : Physics, Chemistry, Mechanics, Electronics etc.)

Sl. No.	Name of the lab	Available Area	Maximum batch size	Weekly hours of engagement	No. of expts. required as per curricula	No. of expts. conducted

9.4 Central Workshops (Common to all branches)

Name	Major Equipment/ Machines available	Available area	Maximum Batch Size	No. of Hours Engaged/ week
a. Carpentry/Pattern shop				
b. Fitting shop				
c. Smithy				
d. Welding shop				
e. Painting and sheet metal work shop				
f. Foundry				
g. Machine shop				
h. Electrical shop				
i. Instrumentation				
j. Any other				

9.5 Central Library

(a) General

	Seating capacity	Area available	Working hours
--	------------------	----------------	---------------

- i. Reading hall
- ii. Stack room
- iii. Current Periodicals room
- iv. Issue counters *
- v. Office & Stores

(b) Books and Journals:

Sl. No.	Item	No. of books (Titles) acquired during the past 5 yrs.	No. of Journals acquired during the last 5 yrs.	Total No. of books available	Total No. of Journals available
---------	------	---	---	------------------------------	---------------------------------

- 1. Books
 - (a) Each Branch of Engg./Tech.
 - (b) Mathematics, Physics, Chemistry, Humanities, Social Sciences, Management, etc.
- 2. Journals
 - (a) Each branch of Engg. / Tech.
 - (b) Mathematics, Physics, Chemistry, Humanities, Social Sciences, Management, etc.
- 3. Books under Book bank

* Please state policy regarding issue of books / periodicals to staff & students

9.6 Central Instructional Resource Centres for preparation and projection of transparencies, slides, video cassettes etc.

Name of the Centre	Facilities available	Building space	Capacity

9.7 List of equipments:

- i. Reproduction facilities, lighting system, studio
- ii. Post-production facilities
- iii. Conversion facilities (such as VHS to U-matic etc.)
- iv. Sound recording

9.8 Central Amenities

Item	Facilities available	Area available	Capacity as applicable
a. Common room for girls			
b. Common room for boys			
c. Toilet blocks			
d. Cycle / Scooter shed			
e. Canteen			
f. NCC & NSS Offices			
g. Student activity centre			
h. Alumni centre			
i. Marketing complex			
j. Dispensary			
k. Open air-theatre/Auditorium			
l. Transport			
m. Telephones			
External			
Internal			
Coin-operated			
n. Any other			

9.9 Sports

Sports facilities	Facilities	Total area available	Capacity/ Number
a. Athletic track, Cricket field Football field and Hockey field			
b. Volley ball court Basket ball court Badminton court Tennis court			
c. Gymnasium			
d. Indoor stadium			
e. Others			

- 9.10 i. How does the Institution encourage maximum student participation in co-curricular activities?
- ii. Please give the number of students who participated in NCC, NSS and other cultural and social work activities during the past 3 years.
- iii. Please give the number of students who participated in National / Inter-University competitions in sports, games and oratorical contests, etc. during the past 3 years.

9.11 Central General Facilities:

Sl. No.	Item	No. Available with the Institution	Functional status : No. Serviceable / Unserviceable.
1.	Overhead projectors		
2.	Slide projectors (35 mm)		
3.	V.C.R.		
4.	Plain-paper copier		
5.	Duplicating machines		
6.	Reprographic facilities		
7.	Audio cassette recorder		
8.	Ammonia printing machines		
9.	Microfilm reader		
10.	Ordinary typewriters		
11.	Mathematical typewriters		

12. Electronic typewriters
13. 16mm film projector
14. Word Processor
15. Photographic camera for production of slides, etc.
16. Drawing Instruments
17. Cutting, Binding and Stitching machine
18. Drafting machine
19. Public address system
20. Water coolers
21. Room conditioners
22. Printing
 - (i) Press
 - (ii) DTP
 - (iii) Others
23. Others

9.12 General Computing Facilities:

Sl. No.	Computer Type	No. of terminals available	Location / building	Software facility	Other attachments
---------	---------------	----------------------------	---------------------	-------------------	-------------------

10.0 ACCOMMODATION :

(a) Hostel (separately for boys & girls)

Name of Hostel	No. of rooms Single / Double / Triple	Total seats in each Hostel
----------------	--	----------------------------

Grand Total of seats _____

(b) Staff Residences

	Type of accommodation and No. available (give details)	Total in each category
Teaching staff		
Technical staff		
Non-teaching staff (others)		

- (c) Guest house / Faculty Hostel
- (d) Schooling for staff children
- (e) Hospital facilities

11.0 FEE STRUCTURE AND OTHER COSTS FOR STUDENTS FOR EACH PROGRAMME:

(a) Student Fees

Sl. No.	Programme	Fees (Rs)					
		Tuition	Library	Laboratory	Others	Hostels	Mess

(b) Recurring Cost per Student

Sl. No.	Programme	Intake / year	Salary of teaching staff	Salary of Technical supporting staff	Salary of administrative and non- teaching staff	Consumables, maintenance and other costs	Recurring cost per student (Rs.)

12.0 FINANCIAL STATEMENT

TABLE-I

FOR YEAR ENDING 31ST MARCH

REVENUE		EXPENDITURE	
Particulars	Amount Rs. lakhs	Particulars	Amount Rs. lakhs
a. Non-Recurring		a. Non-Recurring	
i. Capital			
- Grant from Central and State Governments	:	- Land	:
- Grant from UGC & other autonomous bodies	:	- Buildings	:
- Donations and receipts from all other sources	:	- Equipment (Instructional, Research, etc.)	:
		- Library	:
		- Furniture	:
		- Vehicle Deposits	:
		- Miscellaneous	:
ii. Research & Development Fund			
- Receipts from sponsored projects	:		
- Receipts from consultancy, testing, etc.	:		
iii. Other receipts	:		
iv. Endowments & deposits	:		
Sub-total	: _____	Sub-total	: _____
	_____		_____

b. Recurring

- i. Receipts :
- from students :
- from staff :
- from others :
- ii. Grant from
- Ministry of HRD :
- UGC :
- State Government :
- Other Govt. agencies:
- iii. Other Sources :
- (Please specify)

Sub-Total

Total (a+b)

b. Recurring

- i. Educational expenditure :
- Salary of teaching staff /:
technical / admn. staff /
miscellaneous staff
- Departmental expenditure
- Library :
- Workshops :
- Computing Centre :
- Laboratories / Central
facilities :
- Scholarships: UG :
- Research
Scholarships : PG :
- Seminars / Workshops :
- ii. NCC / NSS / NSO :
- iii. Services
- Administration :
- Estate :
- Transport :
- Hostels :
- Canteen :
- Stores :
- Security :
- Hospital / Medical :
- Water, electricity, :
- P&T, Telephones,
Fax, etc. :
- Insurance :
- iv. Taxes :
- v. Miscellaneous :

Sub-Total

Total (a+b)

Note: Please attach agenda and minutes of the last three meetings of the Finance Committee of the Institution.

CERTIFICATE

Certified that all the information given in the Accreditation Proforma (Part-I) is correct to the best of our knowledge.

Name of Department / Programme _____

SIGNATURE

SIGNATURE

HEAD OF DEPARTMENT

HEAD OF INSTITUTION

Place

Place

Seal

Seal

Date

Date



NATIONAL BOARD OF ACCREDITATION

(All India Council for Technical Education, New Delhi)

ACCREDITATION PROFORMA

PART-II

Name of Department / Programmes

Submitted by

(Name of the Institution)

Year

NATIONAL BOARD OF ACCREDITATION
Indira Gandhi Sports Complex, I. P. Estate, New Delhi - 110 002
Phone : 3379010-13, 3379015-19, 3379027, Fax : 011-3379027
e-mail : ikbhat@aicte.ernet.in

ACCREDITATION PROFORMA

PART-II

Contents	Page No.
01. Name of the Department	63
02. Full address with Fax/Telephone No.	63
03. Year of Establishment of the Department	63
04. Objectives and Self-appraisal	63
05. Academic Programmes	63
06. Details of the Programme	64
07. Research Achievements	65
08. Aided/Sponsored Projects	65
09. Collaborative Programmes	65
10. Quality Improvement Programmes	65
11. Technical Assistance Offered and Revenue Earned	66
12. Grants Received and Funds Generated/Provided	66
13. Annual Allocation of Grants to the Department/Programme	66
14. Utilisation of the Facilities	66
15. Space and Buildings (Each Programme/Department)	67
16. Achievements of the Department and the Faculty	69
17. Faculty Positions	70
18. Faculty Achievements	71
19. Faculty Academic Profiles	73
Certificate	74

Institution : _____

1.0 NAME OF THE DEPARTMENT :

2.0 FULL ADDRESS WITH FAX / TELEPHONE NO. :

3.0 YEAR OF ESTABLISHMENT :

4.0 OBJECTIVES AND SELF-APPRAISAL

- (a) What are the principal long range / short range goals of your Department? To what extent are they being achieved? What are the major constraints experienced?
- (b) Please summarise major developments and progress achieved during the last 5 years.
- (c) Please indicate any significant projects under consideration for future development of teaching and research programmes.
- (d) Please indicate adequacy of qualified faculty and trained supporting technical and non-technical staff
- (e) What are the principal strengths of your Department?
- (f) What are the principal weaknesses of your Department ?

5.0 ACADEMIC PROGRAMMES:

Title of Programme	Field of Specialisation	Full time or part-time	Duration	Sanctioned Strength	Year of Starting	Date of Approval by AICTE
Under-graduate Programmes	:					
Post-graduate Programmes	:					
Research Programmes	:					

6.0 DETAILS OF THE PROGRAMME

6.1 Details of Courses and Examinations

Sl. No.	Annual / Semester	Name of the Subject	Weekly load L T P*	Total Teaching load	Hours of Exams. Theory / Practical

* L = Lecture, T=Tutorial / Seminar, P=Practical / Project

State the Mechanism for arranging practical training for students.

6.2 Give the following Annexures for each Programme

- Annexure I : Details of course contents of each subject.
- Annexure II : Lecture scheme for each subject
- Annexure III : List of experiments for each subject per semester
- Annexure IV : No. of tutorials for each subject
- Annexure V : List of final year projects and number of students per project
- Annexure VI : List of books prescribed for study and for reference for each subject

6.3 Evaluation & Examination Systems:

System	Percent Weightage				
	Theory	Practical	Tutorial	Industrial Training	Seminar / Project
Annual					
Semester					

6.4 Give a list of the teaching aids used, for lecture / drawing classes etc.

6.5 Give details regarding guidance and counselling of students

**7.0 GIVE DETAILS OF ACHIEVEMENTS OF THE DEPARTMENT
(IN THE LAST FIVE YEARS)**

- i. Projects under Thrust / Emerging Areas
- ii. Modernisation and Removal of Obsolescence
- iii. Research and Development Projects
- iv. Industry - Institution Interaction
- v. Any other achievements

8.0 WHETHER THE DEPARTMENT HAS

- (a) Long / Short term R& D contracts or MoUs in any area ?
- (b) STEP (Science and Technology Entrepreneurship Programme) ?
- (c) DSP / SAP of UGC ?
- (d) COSIST of UGC ?
- (e) Continuing Education Programmes ?
- (f) Patent rights ?
- (g) EDP Programmes ?
- (h) Centres of Excellence ?
- (i) Any others ?

9.0 COLLABORATIVE PROGRAMMES

- i. With other institutions:
- ii. With National Research Laboratories
- iii. International Organisations / Laboratories / Institutions
- iv. Industry

(Details to be given on a separate sheet not exceeding 100 words)

10.0 QUALITY IMPROVEMENT PROGRAMMES CONDUCTED IN LAST FIVE YEARS

- i. Extension Programmes, including Training Programmes for Engineers from industries.
- ii. Staff Development Programmes for Teachers of other institutions
- iii. Department's contributions to Curriculum Development

11.0 TECHNICAL ASSISTANCE OFFERED AND REVENUE EARNED IN THE LAST FIVE YEARS

(Give details of title of assignment, sponsoring agency, value and duration)

- i. Consultancy Assignments
- ii. Sponsored Research Projects

12.0 GRANTS RECEIVED AND FUNDS GENERATED / PROVIDED

	Grants received from MHRD/AICTE for the programme		From UGC under SAP COSIST etc.		Development grant under MHRD		Any other Agency (specify)	
	7th Plan	8th Plan	7th Plan	8th Plan	7th Plan	8th Plan	7th Plan	8th Plan
i. Amount allocated								
ii. Date of sanction								
iii. Details of Utilisation								

13.0 WHAT ARE THE ANNUAL RECURRING GRANTS TO THE DEPT/ PROGRAMME?

Research	Teaching		Others
	PG	UG	

14.0 UTILISATION OF THE FACILITIES BY OTHER DEPARTMENTS, INDUSTRY, R & D ORGANISATIONS, ETC.

Name of the Department	Equipment	No. of hours of utilisation per week
1		
2		
3		
4		
5		

15.0 SPACE AND BUILDINGS

15.1 Space for Teaching and Learning (Each Programme / Dept.)

Sl. No.	Type of Space	Seating capacity	No. of rooms	Area (Sq.m)
1.	Lecture Rooms			
2.	Tutorial Rooms			
3.	Drawing Halls			
4.	Conference Rooms			
5.	Seminar Rooms			
6.	Committee Rooms			
7.	Studio Rooms			
8.	Others (Specify)			

15.2 Departmental Laboratories:

Sl. No.	Name of the Lab.	Available area size	Maximum batch engagement	Weekly Hours of required as per Curricula	No. of experiments actually conducted	No. of experiments	Recurring expenditure

15.3 Give the list of major equipment in laboratories (costing one lakh or more)

Sl. No.	Name of Equipment / Instrument	Date and cost of purchase	Date of installation	Present condition

15.4 Separate Departmental Workshops, if any :

Name of the Workshop	Available area	Equipment / Machines available	No. of students who can work at a time	Recurring expenditure
a. Carpentry / Pattern shop				
b. Fitting shop				
c. Smithy shop				
d. Welding shop				
e. Painting and sheet metal workshop				
f. Foundry				
g. Machine shop				
h. Others				

15.5 Departmental Library

	Seating capacity	Area
a. Reading hall		
b. Stack room		
c. Current Periodicals room		
d. Issue counters		
e. Office & Store		

15.6 Departmental Library Books and Journals :

Sl. No.	Item	Titles acquired in last 3 years (with cost)			Total Titles held on date
		199 -	199 -	199 -	
1.	Books				
2.	Journals				

Note : If the teaching room, laboratories, workshops and library are shared by other departments or institutions, please furnish details.

16.0 ACHIEVEMENTS OF THE DEPARTMENT

(a) No. of students admitted (all programmes)

Year	Programme	Students admitted	Lateral admissions	Students dropped out	Students passed out

(b) Number of students qualified in national examinations

Year	UGC/CSIR/NET	GATE	Awards / Fellowships (National and International)

(c) Give the list of number of students who secured I Class, Distinction and Rank in the university examinations

Year	First Class	Distinction	Rank

(d) Students selected in Central / State services through competitive examinations.

Year	Type of services	Number

- (e) Details of placement of pass-outs during the last three years through :
 (a) On Campus interviews (b) Selection Boards & (c) Others

Course	No. passed	Placement		
		within 3 months	within 6 months	6 to 12 months

16.1 Number of students working for Ph. D. and M.E. / M.Tech. programmes

Year	Programme	No. of Ph.D. students	No. of M.E. / M.Tech. students	Ph.D. awarded	M.E. / M.Tech. awarded
------	-----------	-----------------------	--------------------------------	---------------	------------------------

- Give the list of Ph.D. scholars, along with the titles of the theses, the names of the guides, year of enrolment and year of award.
- Give evaluation procedure of Ph.D. thesis.
- Give no. of Ph.Ds awarded since inception.
- Give details of other programmes where Degrees are awarded by Research.

16.2 Give details of student chapters in National / International Technical Societies (such as IE, IEE, IEEE, CSD). If so, please give details of the activities on a separate sheet not exceeding 100 words.

16.3 Please furnish details of activities of Professional Associations (like Electrical Engineering Association, Civil Engineering Association, Mechanical Engineering Association)

17.0 FACULTY POSITIONS :

17.1 Present Status

Year	Number of posts sanctioned	Number in position
------	----------------------------	--------------------

17.2 List of faculty members (seniority-wise) :

Name	Designation	Date of joining the institution	Date of joining in the present post	Highest Qualification	Specialisation	Total experience in teaching / research industry / organisation
------	-------------	---------------------------------	-------------------------------------	-----------------------	----------------	---

18.0 FACULTY ACHIEVEMENTS

18.1 Publications

(Please provide year-wise details)

Year	Papers Published : Author (s) Journal, Vol. No., Page Nos. and Year	Papers Presented in Conferences Author (s), Title, Name of Conference, Venue, dates	Review articles	Books
------	--	---	--------------------	-------

18.2 Sponsored Research Projects

Year	No. of research projects	Total amount involved
------	--------------------------	-----------------------

18.3 Consultancy Activities :

Year	No. of Consultancy projects	Total amount involved
------	-----------------------------	-----------------------

18.4 Fellowship of Academic bodies and Societies :

Name of Faculty Member	Name of Academy / Society	Year of Induction
-------------------------------	----------------------------------	--------------------------

18.5 Membership of Professional Societies :

Name of Faculty Member	Name of Professional Society	Year of Admission
-------------------------------	-------------------------------------	--------------------------

18.6 Honours and Awards received by the Faculty members :

Name of the Faculty member	Name of the Award	Year
-----------------------------------	--------------------------	-------------

18.7 Conference, Seminars, Workshops organised by the Department in the last five years

Name of the Conference	Year	Sponsors
-------------------------------	-------------	-----------------

18.8 National and International events not covered above :

18.9 If there is assessment of teachers by the students, please furnish details.

19.0 ACADEMIC PROFILES OF FACULTY MEMBERS

Please furnish the information for each Faculty Member of the Department, on separate sheets and on a floppy, in the format given below :

1. Name

2. Date of birth

3. Designation

4. Degrees obtained;

University	Degree	Year	Field of Specialisation
------------	--------	------	-------------------------

5. Employment record (starting from present position)

University/College	Designation	Period
--------------------	-------------	--------

6. Other related experience - research, industrial etc.

Organisation/Employer	Designation	Period
-----------------------	-------------	--------

7. Consultancy and Sponsored Research activities :

Year	Organisation	Project Title	Amount received
------	--------------	---------------	-----------------

8. Publications:

Papers published in Refereed Journals	Papers presented in Conferences	Review Papers	Books
---------------------------------------	---------------------------------	---------------	-------

(Give the list of publications, with title, names of the author(s), name of the journal, year of publication, etc. with citation index).

9. Fellowship of Academic bodies and Professional Societies

10. Membership of Scientific and Professional Societies

11. Honours and Awards

12. No. of Ph. D., M.Phil, M.Tech. guided

13. List of Conferences, Short-term Courses etc. organised / participated in during the past five years.

CERTIFICATE

Certified that all the information given in the Accreditation Proforma (Part-II) is correct to the best of our knowledge.

Name of Department / Programme _____

SIGNATURE

SIGNATURE

HEAD OF DEPARTMENT

HEAD OF INSTITUTION

Place

Place

Seal

Seal

Date

Date



NATIONAL BOARD OF ACCREDITATION

Volume IV

**The
Accreditor's
Manual**

(Only for the use of NBA Officials)



**ALL INDIA COUNCIL FOR
TECHNICAL EDUCATION
NEW DELHI**

JANUARY 2000

CONTENTS

Title	Page No.
PREFACE	77
01. Tasks for Visiting Team	78
1.0 Preamble	78
1.1 Tasks Preceding the Visit	78
1.2 Tasks During the Visit	78
02. Reoprt of the Visiting Team	79
2.0 Format of the Report	80
2.1 Presentation of Report	81
2.2 Review of Decision	82
03. Accreditation Question Bank	82
3.0 Introduction	82
3.1 Criterion-I : Mission, Goals & Organisation	82
3.2 Criterion-II : Financial and Physical Resources and their Utilisation	83
3.3 Criterion-III : Human Resources-Faculty & Staff	84
3.4 Criterion-IV : Human Resources- Students	85
3.5 Criterion-V : Teaching Learning Processes	86
3.5.1 Library	87
3.5.2 Modernisation and Removal of Obsolescence	88
3.6 Criterion-VI : Supplementary Processes	88
3.7 Criterion-VII : Industry-Institution Interaction	89
3.8 Criterion-VIII : Research and Development	89
Appendix A	91
Appendix B	93
Appendix C	95

PREFACE

These notes elaborate those aspects, features and attributes of the Accreditation field visit which may not have been explicitly touched upon in the Primer on Accreditation or in the Manual of Accreditation. Essentially, these reflect the current perceptions and thinking on the implementation of the Accreditation process.

The National Board of Accreditation (NBA) has the responsibility to contribute to continuous improvement in the quality of the programmes of Technical Education offered by the technical institutions in the country.

The NBA aims at discharging this responsibility through a comprehensive assessment and examination of the overall policies, activities, practices and achievements, as reported by the Institutions and observed by Visiting Teams comprising peer groups of experts. The expert group has the responsibility of providing an informed and considered report on the actual and perceived strengths and weaknesses of the Programmes being accredited. They have the further onus of providing a quantitative evaluation in terms of the specified Accreditation parameters prescribed by the NBA.

Transparency is the essence of the Accreditation policy of the NBA. The aim is to promote the confidence of public and of all stakeholders in the overall standing of Accredited Degree Programmes in Engineering and Technology. By explicitly verbalising the obvious and latent strengths as well as the actual and perceived weaknesses of the Programme under review, the Accreditation process of NBA provides pointers for quality improvement.

The NBA operates through a three-tier procedure while implementing the Accreditation process. The Programme-offering Institution desiring NBA's Accreditation submits for about its own facilities, activities, structure and mechanisms for providing education to the students, in a specified format along with the prescribed fees. The first-hand assessment of the Programme is the responsibility of the Visiting Team.

The various aspects of the Accreditation process have already been described in Volume-I : Primer on Accreditation and Volume-II: Manual of Accreditation. Institutions seeking Accreditation of their Programmes should submit information about their Institutions and about the Programmes in the format given in Volume III : The Accreditation Proforma in two parts : Part I is on Infrastructure and Programmes in the entire Institution, and Part II is on the specific Programme to the accredited. This document, Volume IV : The Accreditor's Manual, describes additional aspects and features designed to assist in the Programme-evaluation and the preparation of the final report. Each part of the Proforma has several section and sub-sections, and Appendix-A indicates the sections under which information covering each of the criteria above can be found. It is hoped that this Appendix will be of help to the Accreditors in assessing the strengths and weakness of the Programme to be accredited, as well as in preparing the Team Report. The minimum norms, which every new Institution offering UG Programmes is expected to satisfy for approval, are indicated in Appendix-B.



CHAPTER-1

TASKS FOR VISITING TEAM

1.0 PREAMBLE

The NBA will identify the Chairperson and Members of the Visiting Team with regard to the Accreditation of a Programme. The Chairperson and the members of the team will receive a copy of the Board's letter to the Vice Chancellor/Director/Principal of the Institution informing him/her of the composition of the Team and requesting him/her to contact the Chairperson of the Committee to plan the arrangements for and the schedule of the Visit. The Board's Secretariat will send to the Chairperson and the members the Institution's profile and the Programme profile furnished by the Institution.

1.1 TASKS PRECEDING THE VISIT

Team members may find it useful to focus on the following while studying the material provided to them :

- (i) The Institution's objectives, their relevance and appropriateness.
- (ii) The consistency of activities with the objectives.
- (iii) The design of programmes and activities, and their relevance to achievement of objectives.
- (iv) Achievement of objectives as seen through the performance indicators.
- (v) Availability at present or in the foreseeable future of human, physical and fiscal resources required to achieve the objectives.

Experts of the Visiting Team who need additional information or clarifications on the information furnished to them should to contact the Chairperson of the Team and obtain the same before the actual visit.

1.2 TASKS DURING THE VISIT

The Chairperson of the Visiting Team should make sure that transparency, impartiality and fairness of the entire Accreditation exercise is observed all the members, and that this is made known to and appreciated by the host Institution. This is not a fault-finding and blame-assigning exercise, but one that is designed to improve and upgrade the host Institution in order for it to offer high-quality Programmes in Engineering and Technology.



CHAPTER-2

REPORT OF THE VISITING TEAM

2.0 FORMAT OF THE REPORT

The Visiting Team shall within two weeks of its visit, submit a Report giving the facts, observations, assessment, conclusions drawn and recommendations to the concerned Sectorial Committee. The Report shall cover all its observations and conclusion relating to the Institution's commitment to its goals, objectives and contents of the curricula, faculty and students, administration, financial position and other relevant factor affecting Accreditation. The report should include:

- a systematic presentation of the information gathered, the observation, assessment of the strengths and weaknesses, and innovative actions and commendable achievements of the Institution.
- an unambiguous recommendation regarding the Accreditation action.
- suggestions to be transmitted to the Institution indicating its weaknesses, commendable achievements, and steps to be taken for future improvement and development.

The Chairperson or its nominated member will normally make a presentation of the report before Sectorial Committee.

The final Report submitted to the NBA will consist of two parts :

Part-I of the Report will contain several sections. Firstly there will be a Narrative Report prepared by the Chairperson himself. Secondly, there will be a report on the general facilities common to all Programmes as well as Programme-specific components. This section will be written by the Chairperson with the help of one of the expert members who will be designated as the General Evaluator. Thirdly, there will be reports of the Programme Experts. The Experts should submit their final version of the report within one week from the date of the Team Visit. Findings not already discussed during the final meeting with the Management should not be included in the these report.

Part-II will consist of a Summary Assessment as well as marks assigned by the Visiting Team against each of the criteria identified by the NBA. The format for this part is given in Appendix C for the UG and PG Programmes.

2.0.1 The Chairperson's Narrative Report should include an Executive Summary of the important observations of the Visiting Team, Visit information, names of Evaluators, assignments to the Visiting Team members, brief schedule of main Visit events, names of persons interviewed, facilities visited and other pertinent information. The body of this part should also consist of a Summary of the Chairperson's observations and those provided by other Team members.

The Chairperson usually makes a visit to cover areas such as the common core, academic support departments (e.g. Mathematics, Physics, Chemistry, Humanities, etc.) and institutional facilities (e.g. Library, Central Workshop, Computer Centre, etc.). He/she may take with him the General Evaluator and any other member who wishes to accompany him/

her. In addition, the Chairperson, along with the General Evaluator, should examine the self-appraisal information provided by the Institution in the Proforma:

The Narrative Report should conclude with an acknowledgement of the contributions and cooperation of the individuals involved in the Visit and the arrangements thereof.

2.0.2 The duties of the General Evaluator include assessment of areas such as the professional orientation of the Programme, student projects, support departments and facilities, and other aspects as determined by the Chairperson. The report of the General Evaluator is not merely a narrative one but also includes certain quantifications. The report should include a summary of the status, and should provide input information to the other Team members in preparing their report.

2.0.3 The Report of the Programme Experts consists of a concise documentation of facilities visited, department's vital statistics and an explicit analysis of 'Strengths and Weaknesses'. The information reported should reflect the situation as observed at the time of the Visit and is related to information provided by the Institution in their completed Proforma for the evaluation of the Programme.

2.0.4 Assessment of marks for the various criteria should be entered in the format given in Appendix-C which should be attached to the report. The following rating scheme should be used to assign letter grades:

'A' Meets all criteria or exceeds them (750) and above on the 1000 point scale).

'B' Meets the minimum criteria, and any deficiencies are marginal and be improved within a short time (650-749 points).

'C' Deficiencies exist but the Institution has the potential to make up within a foreseeable future, say, 1 to 2 years (550-649 points).

'NA' (Not Accredited) Not ripe for Accreditation in view of deficiencies.

The Report should also state explicitly the recommended period of Accreditation For factors which cannot be evaluated because they are not applicable, a horizontal line should be drawn at all the four ratings. Space for comments is provided to furnish specific reasons for assigning these ratings, mentioning details of weaknesses and deviations from the Board's criteria. The comments should highlight outstanding features for giving 'A' rating. They should be precise and concise and should normally fit into the space provided. If extra space is required, additional pages should be attached. Information, if any, not specifically sought in the rating format, may be included in the area provided for comments in each relevant section.

In case of ratings of 'B', 'C', and 'NA', they should be clearly identified in the comments section, along with justification based on the criteria.

Only one Summary Assessment Report per Programme is to be submitted regardless of the number of the Experts involved in evaluating the Programme. It is therefore necessary that the Evaluators come to an agreement regarding the contents of the report.

2.1 PRESENTATION OF REPORT

The Chairperson is expected to compile the two parts and submit the Report to the Sectorial Committee within 21 days after the completion of the Visit. The Chairperson or his nominee may be required to make a presentation of the Report before the Sectorial Committee.

If there are differences between the recommendations of the Sectorial Committee and those of the

Visiting Team, the reasons should be recorded by the Sectorial Committee, and these will be taken into consideration by the National Board of Accreditation.

In case the Board differs from the views of both the Visiting Team and Sectorial Committee or accepts one of their recommendations in case of differences of opinion among them, the Board will indicate reasons for arriving at such a decision.

2.2 REVIEW OF DECISION

In case an Institution wishes to appeal for a review of the Accreditation action taken by the Board, a written application, along with the prescribed fee, should be sent to the Board within 30 days of the date of notification of the Board action. On receipt of such an application, and on being satisfied about a prima facie case, the Chairperson of the Board may appoint a New Committee consisting of a minimum of three members. A meeting of the Committee will be convened wherein the Institution may be invited to present its case for review through its officers. This Committee may visit the institution, if necessary. The recommendations of this Committee will be considered by the Board in order to arrive at the final decision.



CHAPTER-3

ACCREDITATION QUESTION BANK

3.0 INTRODUCTION

The question bank has been prepared with a view to assist the Programme evaluators in eliciting the information, data and other vital statistics of the different facets of the Programmes offered for Accreditation. The range and scope of the question have been carefully designed to give an idea of the significant and important considerations governing the evaluation and assessment of different accreditation parameters.

The question bank is neither prescriptive nor exhaustive. All these questions need not be asked before an assessment is made. Many of the questions would be rendered unnecessary when some of the answers are available or other equivalent information is forthcoming.

The Norms and Standards pertaining to relevant Engineering degree Programmes are given in the Appendix B to provide an idea of the minimum level of facilities required at the start of the Programme. To achieve a good rating/score on the Accreditation scale, these minimum requirements would have to be substantially exceeded.

3.1 Criterion I : MISSION, GOALS AND ORGANISATION

1. What is conceived to be the over-riding mission of the Institution?
2. How widely and pervasively is the mission understood by the faculty, the administration, the students, the supporting staff, and the community in general?
3. What is the vision arising out of the stated mission?
4. Out of the vision as indicated above what are the long-term and short-term goals of the Institution?
5. How is the commitment to these goals made explicit?
6. Is the attitude of the institution towards the pursuit of goals consistent with the aims and objectives of higher education, especially at the tertiary level?
7. What is the mechanism by which the plans to achieve the aims and objectives are set in motion and monitored during implementation?
8. What incentives are provided to those responsible for activities that aid in the achievement of the goals and objectives?
9. With what effectiveness has the Institution successfully pursued its stated objectives during the recent past?
10. Who is responsible for providing leadership and motivation for pursuit of excellence in day-to-day routine activities?
11. What is the level of transparency in the higher level of policy-making, execution and monitoring of academic programmes?

12. What is the level of decentralisation in decision-making and delegation of power for achieving the aims and objectives at the college or department level?
13. What is the involvement of faculty at the decision-making levels affecting mobilisation of resources, allocation of available resources, purchasing and procurement, especially in respect of laboratory equipment and maintenance function?
14. Within the overall resource constraints, what is the level of efficiency contributing to effective utilisation and minimum wastage?

3.2 Criterion-II : FINANCIAL & PHYSICAL RESOURCES AND THEIR UTILISATION

1. What are the most crucial capital resources of the Institution in terms of land, buildings, endowment fund and other deposits of money?
2. What have been the major sources of acquisition of the above resources?
3. What is the level of grants committed by (1) State Govt. (2) Central Govt. (3) other agencies (4) Private sources?
4. For the given requirements of running of the academic Programmes, what is the level of operational budget, and of maintenance budget?
5. How are developmental activities (in terms of increasing infrastructure/facilities/services) carried out?
6. What are the plans of the Institution towards achieving a fully residential (both faculty and students), self-sufficient campus?
7. What is the present usable floor area of the buildings for academic activity?
8. What are the current plans for additional building space and for what purpose?
9. How is the maintenance function carried out and monitoring achieved to ensure maximum level of safety and hygiene?
10. What are the hostel facilities available for male students and for girls?
11. What is the administrative or governance structure for meeting the needs of a worthwhile academic and learning ambience?
12. What are the services available on campus in respect of requirements of the academic community, e.g. families of faculty members and students?
13. What is the level of communication, power and water services available on campus?
14. How are the requirements of reprographic services provided on the campus?
15. Apart from the main hostel messes, what are other avenues for refreshment for students/faculty members?
16. Are there any concessional transport facilities for students or employees for travel from hostel/ residences to institution/important city locations?
17. What is the level of medical facilities available on the campus? Are essential first-aid services as well as emergency services available on the premises?
18. Does the Institution have a regular/effective arrangement for emergency medical assistance to members of staff or students while on campus or in the laboratory?

19. Are the service facilities, especially electrical and other installations, certified to be safe and free from hazards?
20. Are employees and students covered by some kind of group insurance?
21. In the event of an emergency (accident/fire) is there a system of action in place for information communication and for initiating remedial action?
22. Does the Institution possess the requisite certificate of fire safety as well as means of dealing with different types of fires and hazards?

3.3 Criterion-III : HUMAN RESOURCES—FACULTY AND STAFF

1. What is the annual intake of new students, and the present total enrollment in respect of full-time students?
2. Are there any parts-time programmes? If so what would be the full-time equivalent of that number as far as faculty requirements are concerned?
3. What is total number of full-time regular (not retired or part-time) faculty members, and what is the overall faculty-student ratio?
4. For each degree Programme, are there reasonably adequate number of full-time teaching staff (equal to or exceeding the desirable ratio)?
5. Is there a senior Professor/Reader for each major subject are in the Programme (the major areas could be as per general scheme of electives or as per the major laboratory classification)?
6. How many faculty members possess AICTE-prescribed qualifications? What is the percentage of the faculty with Doctorate/Master's degrees?
7. How many faculty members recruited during the last academic year (as percentage of total existing strength)?
8. How many faculty members are proposed to be recruited for the current academic session?
9. What is the mode of recruitment of faculty, and what is the representation of the senior faculty of the Programme on the Selection Committee?
10. How many of the faculty members have their highest degree from the same college?
11. What is the average teaching load of a Lecturer, Reader and Professor, in the terms of the theory and laboratory, classes?
12. Apart from teaching what are the major activities (eg. research, consultancy, counselling, administration, etc.)?
13. What is the level of faculty commitment in improving the quality of teaching in the class room and in the laboratory? Indicate the quality of laboratory hand-outs.
14. What is the attitude of the faculty in undertaking special programmes or efforts to improve the learning experience of the students through imaginative assignments, industry-relevant problems, awareness of current state-of-the-art technology, in specific facets of the degree programme?
15. What are the avenues for improving the faculty qualification after recruitment?
16. How many faculty members have attended (during the last academic year) orientation programmes, refresher courses, summer schools, winter schools, national conferences in relevant subject area, and industry-sponsored continuing education?

17. What is the level of faculty participation in promoting activities of professional societies, especially among students on campus?
18. What percentage of faculty members have industrial experience in the subjects they teach?
19. How many faculty members have made efforts to obtain industrial exposure or knowledge of best current practices in their area of the Programme recently?
20. What is the level of welfare support, i.e. provident fund/pension fund, gratuity, etc., available to the faculty members and what is the minimum period of service after which he/she qualifies for these support schemes?
21. Do the faculty members subject their courses to evaluation by students through a well-designed questionnaire?
22. What is the mechanism by which performance appraisal results are used to improve the quality of the teaching/learning processes?
23. What is mechanism of grievance-redressal available to faculty members?
24. What is the number and calibre of administrative and laboratory supporting staff?
25. How are these staff allocated to various laboratories and departments?
26. What is the level of qualifications and skills of the supporting staff?
27. How many such supporting staff members were recruited during the last academic year, and many are planned to be recruited in the current academic year?
28. What are the procedures followed for the recruitment of supporting staff, and what is the level of autonomy or delegation of powers to the Head of the department for utilisation of their services ?
29. What has been the level of their participation in running the laboratory programmes by way of construction and fabrication of equipments, by way of calibration and repair of instruments and systems, and by way of preparation of samples and making routine experimental observations ?
30. What are the schemes for skill upgradation of supporting staff?
31. What is the method of performance monitoring of the staff and avenues of skill-upgradation?
32. What is the level of support offered by the staff for the fabrication of experimental projects at the final year or higher level?
33. What is the system of inculcating safety awareness as well as providing first aid during emergency situations to the affected students or staff?

3.4 Criterion-IV : HUMAN RESOURCES-STUDENTS

1. To what extent is the admission capacity filled up?
2. Are the admissions made on a centralised basis, or through institutional procedures/management quota?
3. In the case of centralised admissions, what are the percentages of marks obtained by the top as well as the last admitted student?
4. What is the procedure for lateral entry into the Programme by way of direct admission to diploma-holders or other similarly qualified/professionally qualified students?

5. What is the percentage of students (of those admitted annually) who clear the Programme in the minimum scheduled duration?
6. What are the major subjects in which maximum failures (theory/practical) occur?
7. What is the percentage of local students and outstation students?
8. What percentage of students avail the hostel facilities provided on the campus?
9. What is the level of placement for the final year students of the programme through on-campus recruitment?
10. What percentage of final year students achieve placement/employment—a) within 3 months, b) within 6 months, c) in more than 6 months?
11. How many students appear in national-level competitive exams, like UPSC, Engineering Services, IAS, etc.?
12. How many students have passed national-level exams during the last year?
13. What is the performance of graduating students in GATE or other national and international level exams like GRE, GMAT, CAT, etc.
14. What percentage of the graduates secured admission to postgraduate courses in (a) the programme or (b) other areas including Management?
15. Does the Department/Programme office maintain a record of student employment and any feedback received from the employers pertaining to achievements of graduating students?
16. For postgraduate Programmes what is the average number of students (expressed as a percentage of the intake) who complete the programme in the stipulated period?
17. How many sponsored postgraduate students, after completing the course work, carry out project work at their place of employment?

3.5 Criterion-V : TEACHING/LEARNING PROCESSES

1. What is the status of the programme offered (affiliated college/university department/autonomous college)?
2. When is the academic calendar published for the ensuing semester/academic year?
3. What is the minimum number of days of instruction (apart from examination or other co-curricular activities)?
4. Indicate the number of contact hours per week for (i) theory classes, (ii) laboratory sessions, (iii) tutorials, (iv) project-supervision, (v) help with individual difficulties.
5. When was the current syllabus last updated and what is the mechanism for review of syllabus on a regular basis?
6. When a course is conducted, is there a monitoring course-committee comprising teachers, students and other staff members?
7. In case of non-performance of duties by the teachers, what is the mechanism by which this can be brought to the attention of top management for remedial action?
8. For autonomous academic systems on a semester basis and with continuous evaluation wholly by internal by faculty the following questions arise:

- (i) What is the mechanism to ensure that setting of question paper and grading of the answer scripts, as well as the level of home work, is of a calibre and standard appropriate to a degree-level institution.
 - (ii) For what period of time after the announcement of the results of evaluation are the records of answer-books preserved for review in response to an appeal?
 - (iii) Is the evaluation student work based on periodic tests and/or final examination?
 - (iv) Are the weightages for the class tests and the final exams announced in the beginning?
 - (v) Is there a provision for a make-up examination? How soon is it conducted after the declaration of results?
 - (vi) How much portion of the final exam requires (i) through understanding of the fundamentals, (ii) application of basic principles, (iii) reproduction of memorised text?
9. Is the laboratory work consistent with already acquired theoretical background?
 10. Is the performance of an experiment merely the confirmation of theory or does it require development of concepts based on fundamental understanding or does it demonstrate application of already illustrated theory?
 11. What is the system in place for routine checking and calibration of all lab equipment prior to their use by students?
 12. What are the modalities and procedures involved in obtaining new equipment, and how are these plans co-ordinated with the academic objectives?
 13. What is the level of grants for consumables, as a percentage of recurring grants?
 14. How much of computing facility is available in the laboratory for interfacing with machines and systems?
 15. Are the demonstration-type kits adequate for the number of students who work in the laboratory in each session?
 16. What is the number of students performing a single experiment with common apparatus?
 17. Is there a provision for giving different quantitative measurements for different students to encourage independent learning experience?
 18. Are library and computing and e-mail facilities available to the students outside the normal working hours & on holidays?
 19. What percentage of students utilise these facilities outside the working hours (a) for their studies in the subject area (b) for their project work?

3.5.1 LIBRARY

20. Does the Institution have a departmental library in addition to a central library?
21. What is the number of books in core subject areas, and what are the facilities in the form of CD-ROM/on-line data in major areas of knowledge?
22. What is the level of automation and computerisation in library and search services for faculty, students and other members of industry or community?
23. Is the library part of a national or an international network, with access to remote information?

24. What is the level of instructional material available in audio-visual (non-book) format?
25. How many titles were added during the last academic year, exclusively (i) for undergraduate programmes, (ii) for postgraduate programmes, and (iii) for faculty research needs?
26. What is the number of books permitted to be taken out per student/faculty member, and what is the duration for which these may be retained without payment of fines?
27. On an average, how many persons visit the library during a week?
28. How many volumes are issued and how many requests for reservations are received and fulfilled ?
29. Is there a separate xeroxing service for students and faculty available within the library premises ?
30. What is the mechanism for acquiring urgently-required references from other libraries?
31. How many refresher courses or other continuing education programmes have been attended by library staff during the last academic year?
32. What are the periodicals of professional societies made available on a regular basis?

3.5.2 MODERNISATION AND REMOVAL OF OBSOLESCENCE

33. What is the mode and mechanism of introducing new experiments, new courses or new topics in the present curriculum?
34. What is the academic structure in place for the removal of obsolete experiments and introduction of contemporary and new experiments?
35. How are the final year projects assigned, carried out and assessed?
36. Is the lab work assessed by an outside examiner?
37. What is the system of reviewing grades upon appeal by the students?
38. What is the level of attendance required for laboratory work?
39. After the submission of laboratory record, what is the usual period by which it is returned to the student, duly corrected and graded?

3.6 Criterion-VI : SUPPLEMENTARY PROCESSES

1. What are the facilities available to the students for extra-curricular and co-curricular activities and what is the mechanism by which the students have the freedom and autonomy in these activities ?
2. What is the system of guidance and counselling available to the new students for (i) academic performance, and (ii) for social interaction and compatibility?
3. How are the students encouraged to undertake professional society activities, by forming student branches or student chapters on the campus?
4. How many competitions or competitive events pertaining to the subject matter of the programme were organized during the last academic year?
5. For the senior students (3rd-4th year), is training for entrepreneurship provided through a specific programme or through guidance from exposure to local regional industry?

6. How does the college keep track of its alumni? Is there an Alumni Association and, if so, what is the level of support provided by the college?
7. When was the last get-together of alumni held, and what is the frequency of such events?

3.7 Criterion-VII : INDUSTRY-INSTITUTION INTERACTION

1. How is industry participation ensured in planning the curriculum at the University level or at the college level or in finalising the undergraduate and postgraduate programmes?
2. Has the department offered programmes fulfilling the needs of continuing education of industry personnel in the nearby area?
3. What is the level and duration of industrial exposure availed by the faculty in the local or regional industry in the last academic year?
4. How many of the projects undertaken by the final year students reflect the needs and problems of the industry?
5. What is the level of participation of industry personnel in successful implementation of such projects?
6. How many staff members have given lectures to industry personnel at the location of industry or at professional societies where the industry representatives are also invited?
7. How many industry experts have given lectures to the students to familiarize them with the state-of-art industry practices and their correlation with the text -book material taught?
8. What is the level of campus recruitment of the graduates of the programme?
9. If training and placement facilities are available, what are the programme undertaken (a) to develop personality of students, and (b) to develop group discussion skills and presentation techniques ?

3.8 Criterion-VIII : RESEARCH AND DEVELOPMENT

1. How many staff members of the programme have access to funding through sponsored research projects?
2. Is the sponsorship of Projects primarily from Govt. organisations or private industry?
3. What are the past instances of collaboration between staff members and industry personnel for joint papers and patents?
4. Has the Programme/Department been recognised for any specific area of excellence based on the availability of sophisticated equipment and/or competent faculty expertise?
5. What are the Fellowships and Assistantships available through college or projects funds for doing postgraduate courses?
6. What is the mechanism for finalising topics for M.Tech. Thesis and Ph.D. Thesis, and projects ?
7. What is the average time period for evaluation of M. Tech. and Ph.D. Thesis and projects, and who decides the panel of examiners?

8. Is publication of the main material of a thesis a pre-condition for its acceptance?
9. During the last three years, how many research papers were published based on (a) curiosity-driven research of the faculty members, and (b) sponsored research funded by external agency?
10. How many postgraduate students have been employed in the subject areas of their project work?
11. How many staff members have completed their Ph.D Thesis work in the departmental labs?
12. Are the *system/software packages* developed for their Ph.D. work made available for the use of students/research workers?
13. What are the areas of the programme in which the department would like to make major investments and how are the resources proposed to be raised?



APPENDIX-A
SECTION ACCREDITATION PROFORMA
CONTAINING INFORMATION CONCERNING
SOME ACCREDITATION PARAMETERS

Accreditation Parameter		Section (s) of Part I	Section (s) of Part II
I.	1a 1d 1f 2a 2d	3.1a, b, f 2.3, 3.1c, e 2.3e, 3.1d, g 2.2b, 3.1 c, e 2.1	4 a 4b, c, f, g 4b, 14 4c
II.	1 to 4 5 6 7 8 10 11 12	11, 12 2.2b,c, 9.1, 9.8 2.2a, 9.2, 9.5, 9.8 10 9.7m, n 9.7 e 9.7l 9.7f	11, 12, 13 15 15
III.	1a, b 1c 1d 1f 1g 2a 2b 2c 2e 2f	7.1, 7.3, 8.0 7.5 7.4 7.6, 10, 12 7.8 8 8 7.5 7.7 7.8	17.1, 2 18.1 to 4 18.7, 8 18.9
IV.	1a, b 1b 1c 2 3 4 6 7	5.1 5.1, 2 5.3, 4, 5 5.6 2.3a 2.3a 2.3e 5.1	 16 16

V.	1	5.7a, b	6.1
	2	5.6a, 7a, b	6.1
	3	6.1, 4, 5	6.2
	4	9.3, 4, 10	15
	5	9.4, 12	15
	6	9.4a, b	15
	7	9.5	15
	8		13
	9	5.6, 7	
	10		7
VI.	1	2.2d, 5.8	
	2	5.7b	6.5
	3	-	16 (iii), (iv)
	5	2.3c, d	-
VII.	1, 2	2.3 e, 3.1 f	9,10
	3	7.4	18.3
	4	6.2, 3	10.1
	6	-	10
	7	2.3 b	16e
VIII.	1, 2	12.1a, b	12, 13, 18.2, 3
	3		18, 18.1
	4	3.1d	8
	5		16b, 18.4
	6		9
	7	6.1	16(ii)

Some parameters have to be evaluated by subjective assessment : I. 1b, c. Others have to be assessed during the visit through discussions with faculty, staff and students.



APPENDIX-B

NORMS AND STANDARDS AT A GLANCE : DEGREE PROGRAMMES

1. **Course Duration** - 4 years, 8 semesters, with 15 working weeks per semester.

2. **Distribution of time per week**

Project	Teaching	Tutorials	Practicals
(30-40)% in 8th semester)	(Maximum 60%)	(Above 10%)	Above 25%)

3. **Degree Programme** - 200 credits

4. **Programme Structure** -

General	Basic Science	Engineering Sciences & Technical/Arts	Professional subjects
5-10%	15-25%	15-25%	55-65%

5. **Staff Norms**

i) **Principal and Teaching Faculty**

ii) **Workshop staff**

iii) **Technical supporting staff**

iv) **Library**

v) **Computer Centre staff**

vi) **Administrative staff**

vii) **Maintenance staff and other Miscellaneous staff**

6. **Faculty Cadre**

i) **Lecturer/Senior lecturer/Senior lecturer (SG)**

ii) **Assistant Professor/Reader**

iii) **Professor**

iv) **Principal/Director**

7. **Cadre distribution**

	Professor	:	Asst. Prof.	:	Lecturer
Desirable ratio	1	:	2	:	4

8. Student/Teacher ratio		
	Desirable	10 : 1
	Maximum	15 : 1
	Theory/Lecture class	60 : 1
	Tutorials	15-20 : 1
	Lab. practical/Workshop	15 : 1
	Drawing	9 : 1
9. Training and leave reserve		10%
10. Non-teaching (Administrative and Technical) to teaching Staff ratio		3 : 1
11. Important Facilities		
i)	Training and Placement Cell	
ii)	Performance Appraisal system for Teachers	
iii)	Quality Improvement Programmes for Teachers	
iv)	Visiting faculty and guest lecturers	
v)	Courses in emerging areas	
vi)	Multi-use of Facilities-Central Facilities	
vii)	Centralised Computer Service Centre with CAD facilities.	
12. Norms for Buildings and Space		
Annual intake	360	students
Programmes	6	in Engineering & Technology
Administrative area	755	sq.m
Academic area	11,236	sq.m
Residential area	12,316	sq.m
Amenities area	660	sq.m
Total carpet area	25,000	sq.m
Total plinth area	34,775	sq.m
Play ground	25,000	sq.m
Open air theatre	4,000	sq.m
Total Space		
1.	Single-storeyed Building with Playground & OAT	98,550 sq.m (24.6 acres)
2.	Double storeyed Building with Playground & OAT	69,550 sq.m (17.4 acres)
3.	Three storeyed Building with Playground & OAT	23,190 sq.m (5.8 acres)

APPENDIX C

FORMAT OF THE REPORT OF THE VISITING TEAM

(Confidential)

Name of the Institution/
College visited

Name of the University, if
affiliated _____

Dates of Visit _____

Programme Title (PG)

General Evaluator

Name:

Organisation _____

Programme Evaluator

Name :

Organisation _____

Chairperson

Name _____

Organisation _____

SUMMARY ASSESSMENT :

	Maximum Marks	Actual Marks Awarded
	PG	
I Mission, Goals and Organisation	70	<input type="text"/>
II. Financial & Physical Resources & their Utilisation	80	<input type="text"/>
III. Human Resources-Faculty and Staff	200	<input type="text"/>
IV Human Resources-Students	100	<input type="text"/>
V Teaching-learning Processes	250	<input type="text"/>
VI Supplementary Processes	50	<input type="text"/>
VII Industry-Institution Interaction	100	<input type="text"/>
VIII Research & Development	150	<input type="text"/>
Total	1000	Total <input type="text"/>

Note : Marks for I & II to be provisionally assigned by Programme Experts and to be normalised for all Programmes after discussion with General Evaluators by Team Chairperson.

RECOMMENDATIONS :

College/Institution :

Programme Title (PG) :

Cross out with an X blocks that are not applicable

(a) Accredited Grade	:	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C
(b) Not Accredited	:	<input type="checkbox"/> NA		
(c) Aailed-Provision of withdrawal	:	<input type="checkbox"/> *		
Period of Accreditation	:	<input type="checkbox"/>	Years	
General Comments	:			

General Evaluator

Programme Evaluator

Team Chairperson

I. MISSION, GOALS AND ORGANISATION

70

I.1 MANAGEMENT

- a) Mission & Goals
- b) Commitment
- c) Attitude
- d) Planning and Monitoring
- e) Incentives
- f) Effectiveness

Max 30

I.2 ORGANISATION AND GOVERNANCE

- a) Leadership
- b) Motivation
- c) Transparency
- d) Decentralization and Delegation
- e) Involvement of faculty
- f) Efficiency

Max 40

II FINANCIAL & PHYSICAL RESOURCES AND THEIR UTILISATION

	a) Capital resources	
	b) Operational budget	
Max 40	c) Maintenance budget	<input type="checkbox"/>
	d) Development resources and budget	<input type="checkbox"/>
	e) Land	
	f) Buildings	<input type="checkbox"/>
Max 30	g) Hostels	<input type="checkbox"/>
	h) Support services (water, electricity, communication etc.)	
	g) Office Equipment	
	h) Canteen	<input type="checkbox"/>
Max 10	i) Transport	<input type="checkbox"/>
	j) Medical facilities	

III HUMAN RESOURCES

200

III.1 FACULTY

	a) Numbers	
	b) Qualifications	
Max 100	c) Recruitment Procedures	<input type="checkbox"/>
	d) Workload (Teaching, Research, Consultancy, Administration)	
	e) Attitudes and	
Max 50	f) Faculty Development (QIP, Conferences, Continuing Education, Professional Societies, Industrial Exposure, Sabbatical leave, etc.)	<input type="checkbox"/>
	g) Performance Appraisal	

III.2 SUPPORTING STAFF (TECH/ADMIN)

	a) Numbers	<input type="checkbox"/>
Max 30	b) Qualification/Skills	<input type="checkbox"/>
	c) Recruitment Procedures	
	d) Attitudes and Involvement	
Max 20	e) Skill Upgradation	<input type="checkbox"/>
	f) Performance Appraisal	

**IV HUMAN
RESOURCES-STUDENTS**

100

- | | | |
|---------------|---|--------------------------|
| | a) Admissions : Central or Institutional | <input type="checkbox"/> |
| Max 20 | b) Admissions Criteria for different categories) | <input type="checkbox"/> |
| | c) Admission Policy for Lateral Entry | |
| | d) Academic Results | <input type="checkbox"/> |
| Max 30 | e) Performance in Competitive Examinations | <input type="checkbox"/> |
| | f) Admission to Postgraduate courses | |
| Max 50 | g) Employment of graduating students during the past year | <input type="checkbox"/> |
| | h) Feedback from employers | <input type="checkbox"/> |

V TEACHING-LEARNING PROCESSES

250

- | | | |
|---------------|--|--------------------------|
| Max 80 | a) Syllabus | <input type="checkbox"/> |
| Max 40 | b) Academic Calendar; number of instructional days;
contact hours per week | <input type="checkbox"/> |
| | c) Evaluation procedures and feedback | <input type="checkbox"/> |
| | d) Laboratories and Workshops (Equipment, Facilities,
Maintenance and Utilisation) | |
| Max 80 | e) Computer facilities (Maintenance & Utilisation) | <input type="checkbox"/> |
| | f) Library | <input type="checkbox"/> |
| | g) ET facilities, Instructional materials | |
| | h) Budget for Consumables | <input type="checkbox"/> |
| Max 50 | i) Implementation of the Instructional Programme
(Lectures, Tutorials, Maintenance of Course files, Workshops,
Lab. Classes, Colloquia, Projects, Teaching Aids) | <input type="checkbox"/> |
| | j) Removal of obsolete experiments and introduction of
contemporary lab. experiments | |

VI SUPPLEMENTARY PROCESSES

50

- | | | |
|---------------|-------------------------------------|--------------------------|
| | a) Extra & co-curricular activities | |
| | b) Student counselling and guidance | |
| Max 50 | c) Professional Society activities | <input type="checkbox"/> |
| | d) Entrepreneurship Development | |
| | e) Alumni Information | |

VII INDUSTRY-INSTITUTION INTERACTION

100

- a) Industry participation in curriculum planning
- Max 40** b) Continuing education
- c) Consultancy
- d) Industrial visits and training
- e) Project work
- Max 60** f) Extension lectures
- g) Placement

VIII RESEARCH AND DEVELOPMENT

150

- a) Institutional Budget for Research and Development
 - Max 150** b) Academic/Sponsored/Industrial Research and Development
 - c) Publications and Patents
- Max 1000** **Grand Total**

ACCREDITATION DECISION

GRADE 'A'	750 points and above	Very Good
GRADE 'B'	650 to 749 points	Good
GRADE 'C'	550 to 649 points	Satisfactory
GRADE 'NA'	Below 550 points	Not accredited

Duration : 5 years/3 years

FORMAT OF THE REPORT OF THE VISITING TEAM

Sheet 1 of 5
for UG Programme

(Confidential)

Name of the Institution/
College visited

Name of the University, if
affiliated _____

Dates of Visit _____

Programme Title (UG)

General Evaluator

Name: _____

Organisation _____

Programme Evaluator

Name : _____

Organisation _____

Chairperson

Name _____

Organisation _____

PART II

SUMMARY ASSESSMENT :

	Maximum Marks Allotted	Actual Marks Awarded
	UG	
I Mission, Goals and Organisation	100	<input type="text"/>
II Financial & Physical Resources & their utilisation	100	<input type="text"/>
III Human Resources	200	<input type="text"/>
IV Students	100	<input type="text"/>
V Teaching-Learning	350	<input type="text"/>
VI Supplementary Processes	50	<input type="text"/>
VII Industry -Institution Interaction	70	<input type="text"/>
VIII Research & Development	30	<input type="text"/>
Total	1000	Total <input type="text"/>

Note : Marks for I & II to be provisionally assigned by Programme Experts and to be normalised for all Programmes after discussion with General Evaluators by Team Chairperson.

RECOMMENDATIONS :

Sheet 2 of 5
for UG Programme

College/Institution :

Programme Title (UG) :

(a) Accredited Grade : A B C

(b) Not Accredited : NA

(c) Aailed-Provision of withdrawal :

Period of Accreditation : Years

General Comments :

General Evaluator

Programme Evaluator

Team Chairperson

I MISSION, GOALS AND ORGANISATION

100

I.1 MANAGEMENT

a) Mission & Goals

b) Commitment

c) Attitude

Max 50 d) Planning and Monitoring

e) Incentives

f) Effectiveness

I.2 ORGANISATION AND GOVERNANCE

a) Leadership

b) Motivation

c) Transparency

Max 50 d) Decentralization and Delegation

e) Involvement of faculty

f) Efficiency

II FINANCIAL & PHYSICAL RESOURCES AND THEIR UTILISATION

100

- a) Capital resources
- b) Operational budget
- Max 40** c) Maintenance budget
- d) Development resources and budget.
- e) Land
- f) Buildings
- Max 40** g) Hostels
- h) Support services (water, electricity, communication, etc.)
- g) Office Equipment
- Max 20** h) Canteen
- i) Transport
- j) Medical facilities

III HUMAN RESOURCES

200

III.1 FACULTY

- a) Numbers
- b) Qualifications
- Max 100** c) Recruitment Procedures
- d) Workload (Teaching, Research, Consultancy, Administration.)
- Max 50** e) Attitudes and Commitment
- f) Faculty Development (QIP, Conferences, Continuing Education, Professional Societies, Industrial Exposure, Sabbatical leave, etc.)
- g) Performance Appraisal

III.2 SUPPORTING STAFF (TECH/ ADMIN)

- a) Numbers
- b) Qualification/Skills
- Max 30** c) Recruitment Procedures
- d) Attitudes and Involvement
- Max 20** e) Skill Upgradation
- f) Performance Appraisal

IV HUMAN RESOURCES-STUDENTS

100

	a) Admissions : Central or Institutional	<input type="checkbox"/>
Max 20	b) Admission Criteria for different categories)	<input type="checkbox"/>
	c) Admission Policy for Lateral Entry	<input type="checkbox"/>
Max 30	d) Academic Results	<input type="checkbox"/>
	e) Performance in Competitive Examinations	
	f) Admission to Postgraduate courses	
Max 50	g) Employment of graduating students during the past year	<input type="checkbox"/>
	h) Feedback from employers	<input type="checkbox"/>

V TEACHING-LEARNING PROCESSES

350

Max 100	a) Syllabus	<input type="checkbox"/>
	b) Academic Calendar : number of instructional days: contact hours per week	<input type="checkbox"/>
Max 50	c) Evaluation procedures and feedback	<input type="checkbox"/>
	d) Laboratories, Workshops and Equipment (Facilities Maintenance and utilisation)	
	e) Computer facilities, Maintenance & Utilisation	<input type="checkbox"/>
Max 100	f) Library	<input type="checkbox"/>
	g) ET facilities, Instructional materials	
	h) Budget for Consumables	
Max 100	i) Implementation of the Instructional Programme (Lectures, Tutorials, Maintenance of Course files, Workshops, Lab, Classes, Colloquia, Projects, Teaching Aids)	<input type="checkbox"/>
	j) Removal of obsolete experiments and introduction of contemporary lab experiments	

VI SUPPLEMENTARY PROCESSES

50

	a) Extra & co-curricular activities	
	b) Student counselling and guidance	
Max 50	c) Professional Society activities	<input type="checkbox"/>
	d) Entrepreneurship Development	
	e) Alumni Information	

VII INDUSTRY-INSTITUTION INTERACTION

70

- a) Industry participation in curriculum planning
- Max 30** b) Continuing education
- c) Consultancy
- d) Industrial visits and training
- Max 40** e) Project work
- f) Extension lectures
- g) Placement

VIII RESEARCH AND DEVELOPMENT

30

- a) Institutional Budget for research and Development
- Max 30** b) Academic/Sponsored/Industrial Research and Development
- c) Publications and patents

Max 1000 **Grand Total**

ACCREDITATION DECISION

GRADE 'A'	750 points and above	Very Good
GRADE 'B'	650 to 749 points	Good
GRADE 'C'	550 to 649 points	Satisfactory
GRADE 'NA'	Below 550 points	Not accredited

Duration : 5 years/3 years

