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Manual

for Accreditation of Undergraduate
Engineering Programs

TIER II Institutions

**National Board of Accreditation
New Delhi**

Manual

for Accreditation of Undergraduate
Engineering Programs

(Tier II Institutions)



National Board of Accreditation
New Delhi

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Address: National Board of Accreditation, NBCC Place, 4th Floor, East Tower, Bhasham Pitamah Marg,
Pragati Vihar, New Delhi 110003; Ph: +91(11)24360620-22; Fax: +91(11) 43084903
E-mail: membersecretary@nbaind.org; Website: www.nbaind.org



Vision

To be an accrediting agency of international standard by ensuring the highest degree of credibility in assurance of quality and relevance to professional education and come up to the expectations of its stakeholder's viz., academicians, corporates, educational institutions, government, industry, regulators, students and their parents.



Mission

To stimulate the quality of teaching, self-evaluation and accountability in the higher education system, which help institutions realize their academic objectives and adopt teaching practices that enable them to produce high-quality professionals and to assess and accredit the programs offered by the institutions imparting technical and professional education.

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PART - I

1. Introduction

1.1. National Board of Accreditation

The National Board of Accreditation (NBA) was set-up in September 1994 by the AICTE to assess the qualitative competence of the programs offered by technical and professional educational institutions from diploma level to post-graduate level in engineering and technology, management, pharmacy, architecture and related disciplines, which are approved by appropriate statutory regulatory bodies.

NBA came into existence as an independent autonomous body with effect from 7th January 2010 with the objectives of assurance of quality and relevance to technical education, especially of the programs in technical disciplines, i.e., Engineering and Technology, Management, Architecture, Pharmacy and Hospitality etc., through the mechanism of accreditation of programs offered by technical and professional institutions. The Memorandum of Association and Rules of NBA were amended in April 2013, to make it completely independent of AICTE, administratively as well as financially. NBA conducts evaluation of programs of technical institutions based on evaluation criteria and parameters laid down by its Committees and Council.

NBA works closely with all the stakeholders to ensure that the programs serve to equip graduates with sound knowledge of fundamentals of the discipline and to develop in them an acceptable level of professional competence that would meet the needs of profession and be adequate for the responsible fulfilment of professional assignments.

1.2. Objectives

Major objectives of the NBA for engineering education are as follows:

- ☞ To assess and accredit the engineering education programs at diploma, degree and post-graduate level;
- ☞ To evolve standards and parameters for assessment and accreditation in line with the parameters laid down by the appropriate statutory regulatory authority for co-ordination, determination and regulation of standards in the concerned field of technical education;
- ☞ To promote excellence through a benchmarking process, which is helpful in determining whether or not an institution is able to achieve its mission and broad based goals, and in interpreting the results of the outcomes assessment process;
- ☞ To promote quality conscious system of technical education where excellence, relevance to market needs and participation by all stakeholders are prime and major determinants;
- ☞ To build a technical education system as facilitator of human resources, that will match the national goals of growth by competence, contribution to economy through competitiveness and compatibility with societal development;

- ☞ To set the quality benchmarks targeted at global and national stockpile of human capital in all fields of technical education;
- ☞ To conduct evaluation of self-assessment of technical institutions and/or programs offered by them on the basis of guidelines, norms and standards specified by it; and
- ☞ To contribute to the domain of knowledge in quality parameters, assessment and evaluation.

1.3. Governance Structure

The NBA is empowered by its Memorandum of Association (MoA). The governance of NBA is effected through the following three statutory committees enshrined in its MoA:

- The General Council (GC)**
- The Executive Committee (EC)**
- The Academic Advisory Committee (AAC)**

Details of the constitution, functions and responsibilities of the above Committees are provided in the MoA of NBA and are available at <http://www.nbaind.org/files/moa-rules-of-society.pdf>

All these committees are chaired by the Chairman, NBA.

Member Secretary is the Member Secretary of these committees. Member Secretary is the Executive Authority of NBA.

Besides, the NBA also have the following other committees and sub-committees:

- ☞ **Sub-Committee of AAC of Engineering & Technology** functions separately to evolve standard for assessment and accreditation, to form assessors' panels, to lay down guidelines for assessors, to evaluate and approve the recommendations of the Evaluation and Accreditation Committee (EAC).
- ☞ **Evaluation and Accreditation Committee (EAC)** of Engineering & Technology reviews the reports of the Evaluation Team and submits its recommendations on accreditation to the Sub Committee of AAC.
- ☞ **Appellate Committee** considers the appeal applications made by the institutions against the decision on accreditation of a program by NBA and gives its recommendations to the Academic Advisory Committee (AAC).

1.4. Tier II Institutions

The Tier-II accreditation for Undergraduate Engineering / Technology Programs is applicable to non-autonomous institutions affiliated to a university. These institutions depend on university for any change in

curriculum, its implementation and to examine the enrolled students for award of degree. Tier II includes Undergraduate Engineering / Technology Programs offered by Government Colleges, Government Aided Colleges, Private/Self Financing Colleges.

Note: - Institutions which are autonomous are covered under Tier-I category. Manual for Tier-I institutions is also separately available on our website.

PART - II

2. Accreditation Policy

2.1. General Information on Accreditation

The following general policies are the guiding principles for accreditation of programs offered by various technical institutions:

- i) NBA accredits technical programs of institutions and not the institution or its departments/centres as a whole.
- ii) Institutions are required to apply for accreditation through eNBA portal as per norms prescribed by NBA from time-to-time.
- iii) Programs to be accredited should be offered by an educational institution, which has been formally approved by the AICTE or the concerned regulatory authority.
- iv) Programs from which at least two batches of students have graduated are considered for accreditation. The program should continuously be running without break with approval of the concerned regulatory authority during the whole duration of last two batches (for example: 5 years for UG Engineering, 3 years for PG Engineering, etc.).
- v) One batch of students must pass out under the autonomous status of the institution and that batch shall be taken as the batch which would be in the first year, in the academic year in which the institution attains autonomy and subsequently passes out after 4 years.
- vi) When an institution gets autonomous status for the first time, it can apply in Tier II in the interim period, if it wishes to, before one batch of students passes out under autonomous status. After one batch of students under autonomous status passes out, the institution shall have to apply for accreditation of its UG programs in Tier I only.
- vii) For all the cases in which an institution gets academic autonomy either from the UGC or from the affiliating University, it becomes autonomous and is required to apply for accreditation of its UG Engineering Programs in Tier I only.
- viii) The institution is required to pay accreditation fee as prescribed by NBA from time-to-time. The application fee is payable in two phases – 10 per cent at the time of submission of Pre-Qualifiers and balance 90 per cent fee at the time of submission of SAR, once the Pre-Qualifiers are approved.
- ix) The institution must submit Self-Assessment Report (SAR) online through e-NBA portal in the prescribed format in respect of each program proposed for accreditation.
- x) The title of a program to be accredited must be the same as shown on the graduating student's degree and the approval letters of the concerned regulatory authority.

- xi) Visiting Team, while evaluating the programs, should ascertain overlapping of resources and faculty for programs in an institution where AICTE has granted approval for 1st shift and 2nd shift.
- xii) Part-time programs are not considered for accreditation.
- xiii) Programs are evaluated in accordance with the accreditation criteria as specified by NBA.
- xiv) Institutions are required to represent the accreditation status of each program accurately and without ambiguity. If accreditation is withdrawn or discontinued or expires, the institution should no longer refer to the program as accredited.
- xv) A two/three day's onsite visit is a part of the accreditation process. A Visiting Team appointed by the NBA carries out the evaluation of the program. The institution is required to propose such sets of dates for the visit when the regular classes and all academic activities of the program applied for, are going on.
- xvi) Institutions have the option of withdrawing a program during the Exit Meeting of the visit. The institution shall handover a written request to the Team Chair during the Exit Meeting. No communication regarding withdrawal will be accepted after the Visiting Team has left the institution. No fee would be refunded in such cases.
- xvii) The final decision made by the NBA is communicated to the educational institution, together with comments detailing strengths, weaknesses and scope for improvement.
- xviii) A copy of the report of the Visiting Team is sent to the institution along with the accreditation status in order to maintain the transparency. In the event of change of the decision from the Visiting Team to the decision making authority, the reasons for changes are also conveyed along with the Visiting Team report.
- xix) If an institution is not satisfied with the decision of NBA regarding accreditation status, it may appeal against the decision to the Appellate Committee (AC) of NBA within 30 days of receipt of the communication.
- xx) Commencement of Accreditation Period:
 - ☞ In case visit of the Expert (Visiting) Team to an Institution is conducted between 1st July - 31st December, the period of accreditation would commence from the on-going academic year (i.e. with effect from 1st July of the on-going academic year).
 - ☞ In case visit is conducted between 1st January to 30th June, the accreditation period would be from the next academic year (i.e. with effect from 1st July of the next academic year).
 - ☞ Same rules apply for deciding the validity period of accreditation periods of programs in appeal cases also.

- xxi) If a program is 'not accredited' or withdrawn during the visit, a fresh application for accreditation of the same program can be considered one year after the date of previous visit of the Visiting Team.
- xxii) If an institution requests postponement of the visit of the Expert Team after the team has already been constituted for the purpose, an additional fee of 25% shall be required to be paid before the visit is rescheduled. If the institution causes cancellation of the visit after the team has already been constituted for the purpose, there would be a cancellation fee of 25% deducted from the fees paid by the institution. In case, an institution requests for withdrawal of the program(s) applied by it after application has been approved by the NBA for further processing and the fee has been paid by the institution, 10% of the accreditation fee per program shall be deducted while refunding the fee as per the request of the institution.

2.2. Outcome-based Education and Accreditation

Outcome based education is targeted at achieving desirable outcomes (in terms of knowledge, skills, attitudes and behaviour) at the end of a program. Teaching with this awareness and making the associated effort constitutes outcome based education. This entails a regular methodology for ascertaining the attainment of outcomes, and benchmarking these against the program outcomes consistent with the objectives of the program.

Initially, NBA accreditation used to be based on "Input – Process – Output" model with major emphasis on availability of resources / facilities and the outputs thereof. In the year 2009, NBA aligned its methodology with international benchmarks and started accreditation on the basis of outcomes. It believes that educational quality must be measured by outcomes rather than inputs, because inputs do not necessarily correlate with quality outcomes. Outcomes are dependent not only on inputs but also on the processes followed by an institution to convert inputs into defined outcomes.

PART - III

3. Accreditation Criteria

3.1. Terminology in Accreditation

The assessment and evaluation process of accreditation of an engineering program is based on 10 broad criteria developed through a participatory process involving experts from reputed national-level technical institutions, industries, R&D organizations and professional bodies. Each criterion relates to a major feature of institutional activity and its effectiveness. The criteria have been formulated in terms of parameters, including quantitative measurements that have been designed for maximal objective assessment of each feature.

The definitions of the terms used in this manual are as follows:

- (a) **Mission and Vision Statement:** Mission statements are essentially the means to achieve the vision of the institution. For example, if the vision is to create high-quality engineering professionals, then the mission could be to offer a well-balanced program of instruction, practical experience, and opportunities for overall personality development. Vision is a futuristic statement that the institution would like to achieve over a long period of time, and Mission is the means by which it proposes to move toward the stated Vision.
- (b) **Program Educational Objectives (PEOs):** Program Educational Objectives are broad statements that describe the career and professional accomplishments that the program is preparing graduates to achieve.
- (c) **Program Outcomes (Pos):** Program Outcomes are statements that describe what students are expected to know and be able to do upon graduating from the program. These relate to the skills, knowledge, attitude and behaviour that students acquire through the program. NBA has defined the Program Outcomes for each discipline.
- (d) **Course Outcomes (Cos):** Course Outcomes are narrower statements that describe what students are expected to know, and are able to do at the end of each course. These relate to the skills, knowledge and behaviour that students acquire in their progress through the course.
- (e) **Assessment:** Assessment is one or more processes, carried out by the institution, that identify, collect, and prepare data to evaluate the achievement of Program Educational Objectives and Program Outcomes.
- (f) **Evaluation:** Evaluation is one or more processes, done by the Evaluation Team, for interpreting the data and evidence accumulated through assessment practices. Evaluation determines the extent to which Program Education Objectives or Program Outcomes are being achieved, and results in decisions and actions to improve the program.
- (g) **Mapping:** Mapping is the process of representing, preferably in matrix form, the correlation among the parameters. It may be done for one to many, many to one, and many to many parameters.

(h) **Rubrics:** Rubrics provide a powerful tool for assessment and grading of student work. They can also serve as a transparent and inspiring guide to learning. Rubrics are scoring, or grading tool used to measure a students' performance and learning across a set of criteria and objectives. Rubrics communicate to students (and to other markers) your expectations in the assessment, and what you consider important.

3.2. Program Outcomes (POs) and Program-Specific Outcomes (PSOs)

3.2.1. Program Outcomes (POs)

POs are statements that describe what students are expected to know and be able to do upon graduating from the program. These relate to the skills, knowledge, analytical ability attitude and behaviour that students acquire through the program.

The POs essentially indicate what the students can do from subject-wise knowledge acquired by them during the program. As such, POs define the professional profile of an engineering graduate.

NBA has defined the following twelve POs for an engineering graduate. These are inline with the Graduate Attributes as defined by the Washington Accord:

- i) **Engineering Knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- ii) **Problem Analysis:** Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.
- iii) **Design/Development of Solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- iv) **Conduct Investigations of Complex Problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions for complex problems:
 - ☞ that cannot be solved by straightforward application of knowledge, theories and techniques applicable to the engineering discipline as against problems given at the end of chapters in a typical text book that can be solved using simple engineering theories and techniques;
 - ☞ that may not have a unique solution. For example, a design problem can be solved in many ways and lead to multiple possible solutions;
 - ☞ that require consideration of appropriate constraints / requirements not explicitly given in the problem statement such as cost, power requirement, durability, product life, etc.;
 - ☞ which need to be defined (modelled) within appropriate mathematical framework; and

- ☞ that often require use of modern computational concepts and tools, for example, in the design of an antenna or a DSP filter.
- v) **Modern Tool Usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
- vi) **The Engineer and Society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- vii) **Environment and Sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- viii) **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- ix) **Individual and Team Work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- x) **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- xi) **Project Management and Finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- xii) **Life-long Learning:** Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

3.2.2. Program Specific Outcomes (PSOs)

PSOs are a statement that describes what students are expected to know and be able to do in a specialized area of discipline upon graduation from a program. Program may specify 2-4 program specific outcomes, if required. These are the statements, which are specific to the particular program. They are beyond POs. Program Curriculum and other activities during the program must help in the achievement of PSOs along with Pos.

3.2.3 Program-Specific Criteria

The Program-Specific Criteria deals with the requirements for engineering practice particular to the related sub-discipline. The stipulations in the Program-Specific Criteria chiefly concern curricular issues and

competencies / qualifications of faculty. UG engineering program can adopt the Program-Specific Criteria specified by appropriate International Professional Associations such as ASME, ASCE, ACM, IEEE, etc.

3.3 Accreditation Criteria

3.3.1 Criterion 1- Vision, Mission and Program Educational Objectives (PEOs)

Each engineering program to be accredited or re-accredited should have its published Vision, Mission and Educational Objectives. Vision and Mission statements help the program in defining aspirations and to remain focused. These statements should be written in a simple language, easy to communicate and should define objectives which focus on aspirations of near future of the institution. Vision is a futuristic statement that the institution would like to achieve over a long period of time, and Mission is the means by which it proposes to move toward the stated Vision.

The Program Educational Objectives of an engineering degree program are the statements that describe what the graduates are expected to perform and achieve during the first few years after graduation. The PEOs, may be guided by global and local needs, vision of the institution, long term goal, etc. The list of various stakeholders of the program, who have been involved in the process of defining the PEOs, are to be provided. While framing the PEOs, the following factors are to be considered:

- ☞ PEOs should generally reflect on the professional accomplishments, continuing education and attitudes in the first few years after their graduation.
- ☞ The PEOs should be consistent with the mission of the institution.
- ☞ All the stakeholders should participate in the process of framing PEOs.
- ☞ The number of PEOs should be manageable.
- ☞ It should be based on the needs of the stakeholders.

For example, the PEOs of an academic program might read like this:

PEO1: Practice civil engineering in construction industry, public sector undertaking or as an entrepreneur for successful professional career.

PEO2: Pursue higher education for professional development.

PEO3: Exhibit leadership qualities with demonstrable attributes in lifelong learning to contribute to the societal needs.

The program shall provide how and where the department's Vision and Mission and the PEOs have been published and disseminated. It should also describe the process of establishing the Vision, Mission and PEOs of the program as per the details provided in the SAR. The program shall also demonstrate how the PEOs are aligned with the Mission of the department /institution.

3.3.2 Criterion 2- Program Curriculum and Teaching-Learning Processes

Program should describe the process that periodically documents and demonstrates how the program curriculum is evolved considering the Program Outcomes and Program-Specific Outcomes. The structure of the curriculum shall comprise of course code, course title, total number of contact hours (lecture, tutorial and practical) and credits. Program curriculum grouping based on course components such as core, elective, basic science, engineering science, humanities and projects / internship shall also indicated. The process to identify the extent of compliance of the curriculum for attaining the Program Outcomes (POs) and Program-Specific Outcomes (PSOs) shall be articulated. The curriculum gaps for the attainment of POs and PSOs with the university curriculum are required to be identified. The steps taken to get the identified gaps filled by way of delivering content beyond syllabus are required to be stated.

Program should include methods followed to improve quality of teaching and learning processes which may include adherence to academic calendar and improving instruction methods using pedagogical initiatives such as real world examples, collaborative learning, quality of laboratory experience with regard to conducting experiments, recording observations, analysis of data, etc. encouraging bright students, assisting weak students, etc. It is also required to mention the initiatives, implementation details and analysis of learning levels related to quality of semester tests, assignments and evaluation, steps taken to ascertain the quality of the projects in terms of processes related to project identification, allotment, continuous monitoring, evaluation including demonstration of working prototypes and enhancing the relevance of projects. Implementation details including details of POs and PSOs addressed through the projects with justification are also required to be provided.

Program should describe about the initiatives related to industry interaction in terms of industry-attached laboratories, partial delivery of appropriate courses by industry experts, initiatives related to industry internship/summer training, etc.

The initiatives, implementation details and impact analysis for various parameters as per the format are to be provided in SAR.

3.3.3 Criterion 3- Course Outcomes and Program Outcomes

Precise illustrations of program articulation matrix and course articulation matrix, modes of delivery of the courses, how assessment tools are used to assess the impact of course delivery / course content, and how laboratory and project work are contributing towards the attainment of the COs and POs, shall be clearly outlined in the program.

The attainment of POs may be assessed by direct and indirect methods. Direct methods of assessment are essentially accomplished by the direct examination or observation of students' knowledge or skills against measurable performance indicators. On the other hand, indirect methods of assessment are based on ascertaining opinion or self-report. Rubric is a useful tool for indirect assessment. A rubric basically articulates the expectations for students' performance. It is a set of criteria for assessing students' work or performance. Rubric is particularly suited to Program Outcomes that are complex or not easily quantifiable for which there

are no clear “right” or “wrong” answers or which are not evaluated with the standardized tests or surveys. For example, assessment of writing, oral communication, or critical thinking often require rubrics. The development of different rubrics and the achievement of the outcomes need to be clearly stated in the SAR. The results of assessment of each PO for two to three assessment years shall be indicated as they play a vital role in implementing the continuous improvement process of the program.

3.3.4 Criterion 4 - Students’ Performance

The educational institution should monitor the academic performance of its students carefully. The institution shall provide the required information for three complete academic years about sanctioned intake and corresponding admission in the program, success rate with and without backlogs in the stipulated period, academic performance of second and third year, placement and higher studies and professional activities as per the format given in the SAR.

3.3.5 Criterion 5 - Faculty Information and Contributions

The faculty members should possess adequate knowledge / expertise to deliver all the curricular contents of the program.

The number of faculty members must be adequate so as to enable them to engage in activities outside their teaching duties, especially for the purposes of professional development, curriculum development, student mentoring/counselling, administrative work, training, and placement of students, interaction with industrial and professional practitioners.

The number of faculty members must be sufficiently large in proportion to the number of students, so as to provide adequate levels of faculty-student interaction. In any educational program, it is essential to have adequate levels of faculty-student interaction, which is possible only if there are enough faculty members.

The faculty must be actively involved in research and development. The program must support, encourage and maintain such R&D activities, which, in turn, provide new knowledge to the curriculum. The student’s education is enriched by being part of such a culture as it cultivates skills and habits for lifelong learning and knowledge on contemporary issues.

The program shall provide the required information for three complete academic years for Student-Faculty Ratio (SFR), Faculty Cadre Ratio, Faculty Qualifications, Faculty Retention, Faculty competencies in correlation to program-specific criteria, Innovations by the faculty in teaching and learning, Faculty development activities, academic research, sponsored research, development activities and consultancy along with Faculty Performance Appraisal and Development System (FPADS) and contributions of visiting / adjunct / emeritus faculty as per the format given in the SAR.

3.3.6 Criterion 6 - Facilities and Technical Support

The institution must provide adequate infrastructural facilities to support the achievement of the Program Outcomes. Classrooms, tutorial rooms, meeting rooms, seminar halls, conference hall, faculty rooms, and laboratories must be adequately furnished to provide an environment conducive to learning.

The laboratories must be equipped with computing resources, equipment, and tools relevant to the program. The equipment of the laboratories should be properly maintained, upgraded and utilized so that the students can attain the Program Outcomes. There should be an adequate number of qualified technical supporting staff to provide appropriate guidance to the students for using the equipment, tools, computers, and laboratories. The institution must provide scope for the technical staff for upgrading their skills and professional advancement.

The institution shall provide the required information about adequacy and equipment in the laboratories, their maintenance, overall ambience and safety measures in laboratories in the department to meet the curriculum requirements as well as the POs and PSOs, and technical manpower in the department, as per the format given in the SAR.

3.3.7 Criterion 7- Continuous Improvement

Closing the loop at course level, program level and institution level ensures quality assurance of the program. All COs attainment and POs attainment analysis is made to provide continuous improvement through course delivery, assessment and curriculum.

The institution shall provide required information regarding action taken based on the results of evaluation of each PO for two to three assessment years along with academic audit system / process, placement, higher studies, entrepreneurship and quality of students admitted to the program in relation to continuous improvement.

3.3.8 Criterion 8 –First Year Academics

First year of graduation study consists of science, mathematics, humanities and general engineering courses from different departments of the institution. Institution has to provide information about First Year Faculty Ratio (FYSFR), Qualification of Faculty Teaching First Year Common Courses, First Year Academic Performance, Attainment of Course Outcomes and Program Outcomes of all first year courses and the action taken based on the results of evaluation of relevant POs and PSOs for continuous improvement.

3.3.9 Criterion 9 –Student Support Systems

Academic student support systems play an important role in the teaching-learning process. Institutions are expected to provide information on the various such systems namely, mentoring/proctor system at individual level, feedback analysis and reward and corrective measures, self-learning facilities/materials and scope for learning beyond syllabus, career guidance, training and placement, details of activities of entrepreneurship cell, and provision for co-curricular and extra-curricular activities as per the format given in SAR.

3.3.10 Criterion 10 - Governance, Institutional Support and Financial Resources

The governance structure of the program must clearly assign authority and responsibility for the formulation and implementation of policies that enable the institution to fulfil its Mission and in turn Vision of the institution. The institution must possess the financial resources necessary to fulfil its Mission and PEOs. In particular, there must be sufficient resources to attract and retain well-qualified staff, and to provide them with opportunities for continuous development and career growth. The program's budgetary planning process must also be provided for the acquisition, repair, maintenance and replacement of physical facilities and equipment.

The educational institution must have a comprehensive and up-to-date library and extensive educational, technological facilities.

The institution shall provide the required information about strategic plan and its effective implementation and monitoring, governance body, administrative setup, function of various bodies, service rules and recruitment policies, decentralization in working and grievance redressal mechanism, delegation of financial powers, transparency and availability of correct information in public domain, budget allocation and utilization (for both institution and program), library, quality of learning resources and availability of adequate Internet bandwidth as per the format given in the SAR.

3.4 Accreditation Criteria Marks Distribution

Criterion No.	Criteria	Mark / Weightage
	Program Level Criteria	
1.	Vision, Mission and Program Educational Objectives	60
2.	Program Curriculum and Teaching – Learning Processes	120
3.	Course Outcomes and Program Outcomes	120
4.	Students' Performance	150
5.	Faculty Information and Contributions	200
6.	Facilities and Technical Support	80
7.	Continuous Improvement	50
	Institution Level Criteria	
8.	First Year Academics	50
9.	Student Support Systems	50
10.	Governance, Institutional Support and Financial Resources	120
	Total	1000

PART - IV

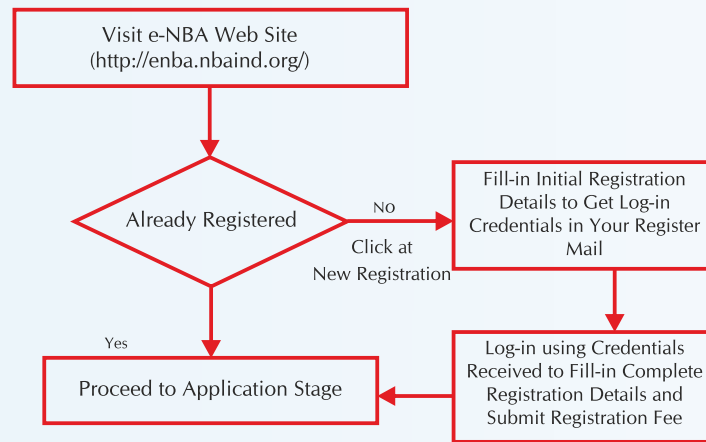
4. Accreditation Process

Accreditation workflow for Tier I Engineering institution is summarized in Workflow Diagram (Fig. 1) and described below briefly:

4.1 Accreditation Stages

Eligible institutions may apply for accreditation of their programs online through the “Accreditation Workflow Management System” (<https://enba.nbaind.org/>) called e-NBA. The process of accreditation can be grouped into the following four sequential stages essentially in the same order. These stages are: i) Initial Stage; ii) Pre-Assessment Stage; iii) Assessment Stage; and iv) Post Assessment Stage (Decision-Making). Applicant institution must complete the previous stage, before proceeding to the next stage.

Initial Stage: Registration



Pre-Assessment Stage

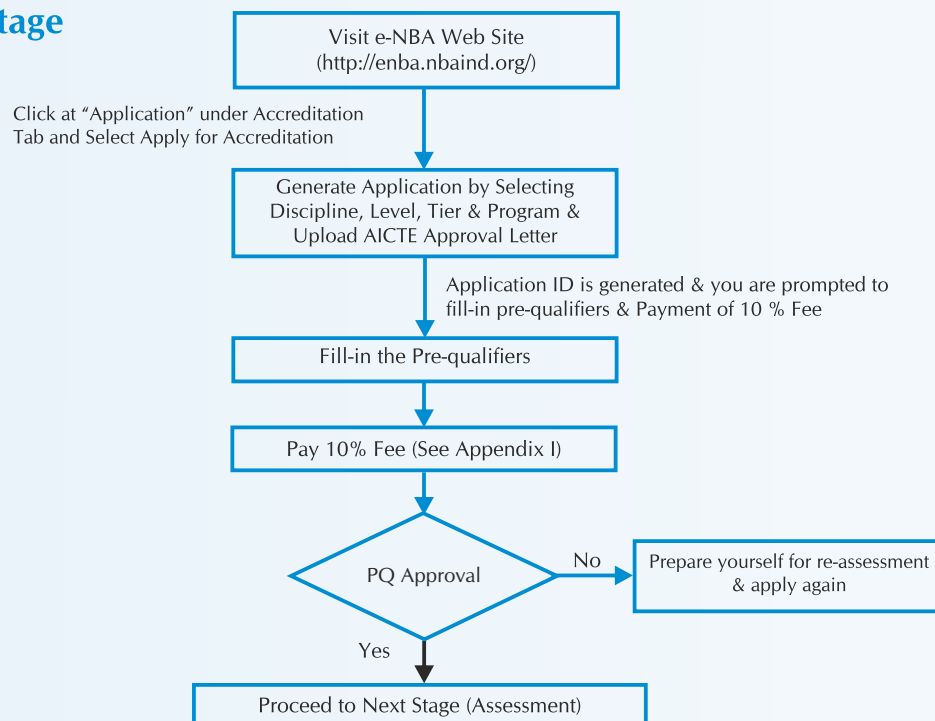
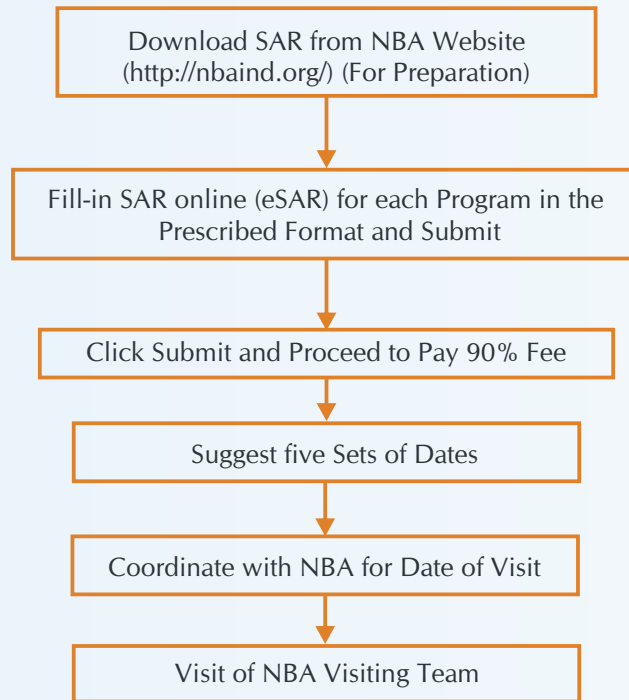


Fig. 1: Accreditation Workflow: Registration and Pre-assessment Stage

Assessment Stage



Post-Assessment Stage

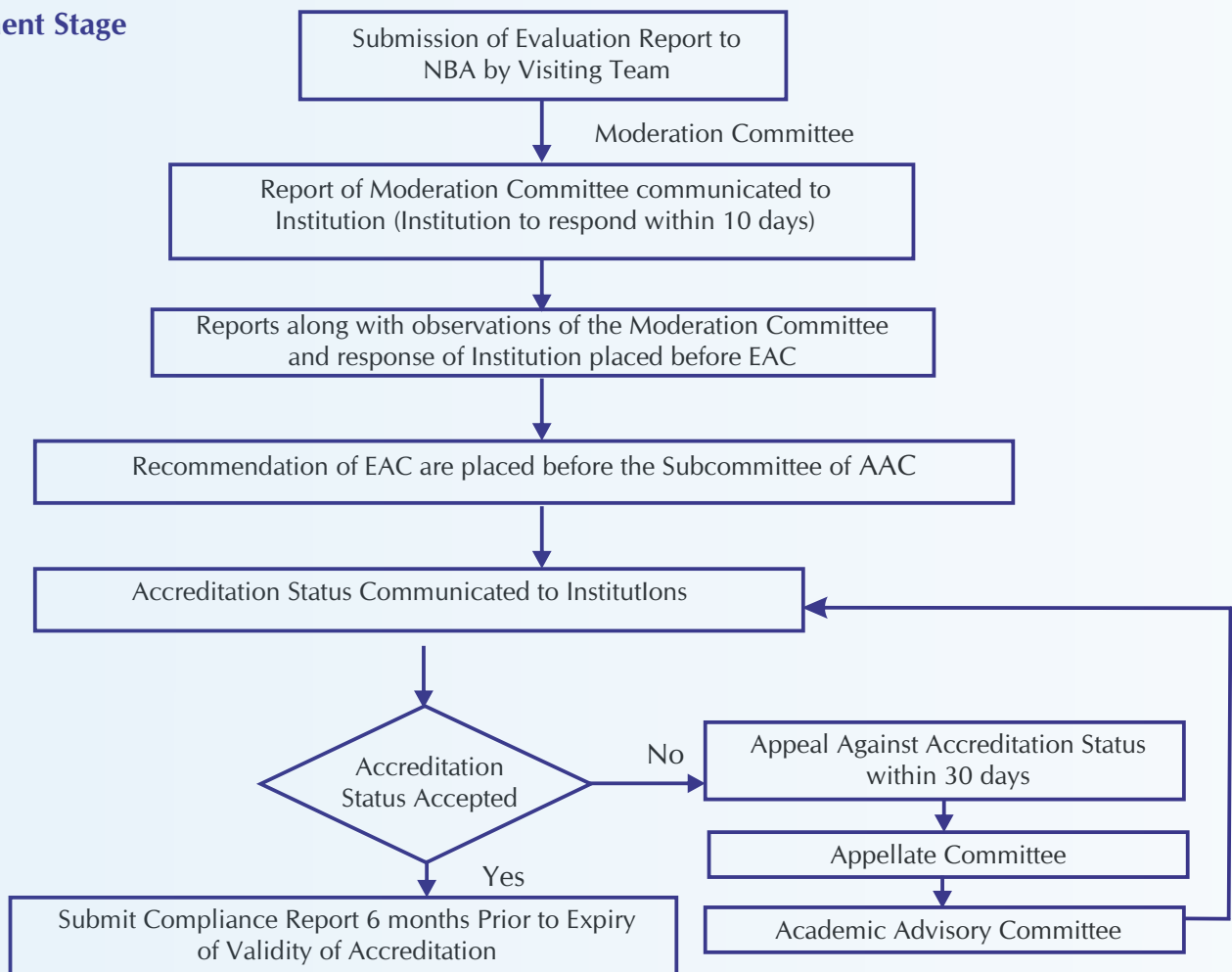


Fig. 1: Accreditation Workflow: Assessment and Post-Assessment Stage

4.1.1. Initial Stage: Registration

Institutions willing to seek accreditation of their programs by NBA are required to register with eNBA. Registration with eNBA is a one-time process. After filing the initial registration form, user gets user-id and password to fill-in the complete Registration Form. Fig.2 is screen shot of initial registration and login interface for registered institutions.



Fig. 2: Registration of Institutions on e-NBA

Steps involved in the process of registration are as follows:

- ☞ The process of registration involves filling-in and submission of basic information of the registering institution in the data input boxes on e-NBA Registration Interface. On submission of basic information, the institution receives temporary login credentials through their registered e-mail, which become permanent user ID after submission of one-time Registration Fee (**See Annexure I: Fee Structure**).
- ☞ The institution is required to login using credentials received through their registered e-mail to complete the process of registration which includes keying-in of information in the data input boxes on e-NBA portal, such as the head of the institution, details of key promoters, bank details, details of the programs proposed for accreditation by the institution and uploading copies of all AICTE Approval Letters (academic year wise) or any other appropriate regulatory authority. The copies should be duly authenticated by the Head of the institution on each page.
- ☞ The institution is required to pay one-time registration fee to complete the process of registration.
- ☞ The above-mentioned process should be completed within **15 working days** of the initiation of the registration, failing which institutions will have to register again.
- ☞ Institutions already registered with e-NBA are not required to start the process of registration again.

4.1.2. Pre-Assessment Stage

4.1.2.1. Application for Accreditation

- ☞ Registered institution may apply online for accreditation of its programs by NBA. Login into eNBA portal using login credentials obtained during the Registration process mentioned above.
- ☞ Generate appropriate format for application by selecting Discipline, Level and Programs from pull-down menus as shown in Fig. 3.

Application Form For Accreditation Add AICTE Letter

Programme(s) for Accreditation:

Application Date * 12-08-2018

	Engg. & Tech./Pharmacy	Management	Computer Application
Discipline	Select Discipline	Select Discipline	Select Discipline
Level	Select Level	Select Level	Select Level
Tier	Select	None	Select
Programme	Select Programme	Select Programme	Select Programme
	Add To List	Add To List	Add To List

Note: Guidelines for Filling Application Form:

1) The institutes can apply maximum for 5 programmes in a single application for various levels. However, MBA and MCA Programmes may be included alongwith Engineering Programmes in an application.

2) Upload all AICTE approval letters in date.

Fig. 3: Generating Application(s) for Accreditation of Specific Program

- ☞ Upload all AICTE Approval Letters for the last five years including the Current Academic Year or any other appropriate regulatory authority duly authenticated by the Head of the institution.
- ☞ Institutions can apply for accreditation up to five programs through a single application on the e-NBA portal. Management and MCA programs can be clubbed with other programs in a single application. Applications for accreditation can be submitted any time when an institution is fairly confident that its programs comply with the relevant pre-qualifiers, and their system for outcome-based education and accreditation have been put in place and well imbibed by the faculty members of the program.
- ☞ Click at **“Submit”** button, for submission of temporary application to NBA for further processing. Application ID gets generated on successful submission of application.

4.1.2.2. Submission of Pre-Qualifiers

After the generation of the temporary application, the institution is required to fill-in the pre-qualifiers (See Annexure II) for program(s) to be accredited through eNBA portal. Login into eNBA portal and Click at “Pre-qualifier / e-SAR” under “Application” from the Left Navigation Panel. eNBA would display your Application No., Program and Level. Click at “Proceed to Pre-qualifiers”. e-NBA seeks information on pre-qualifiers under five sub-heads, namely i) Programme-specific Information; ii) Student Admissions; iii) Information on Faculty;

iv) Student Faculty Ratio; and v) Compliance Status. Fill-in all the requisite information for the first sub-head and click at “Save and Next” to move to the next sub-head. Screenshot of program-specific information is given below as an example in **Fig. 4**.

Program Specific Information for Civil Engg.

Note: Please provide details of all the programs offered by the department
 Note: Please click on Add more before clicking at Save and Next.

Name of Department:

Name of the Program: Program for Consideration: Level:

Year of Start: Year of AICTE Approval: Initial Intake:

Increase/Decrease in Intake (YearWise): Current Intake: Admission State:

Name of program	Program Applied Level	Start of Year	Year of AICTE Approval	Initial Intake	Intake Increase	Current Intake	Accreditation Status	From	To	Program For Consideration	Duration	Dates

Fig.4: Screenshot of Pre-qualifier: Program-Specific Information

4.1.2.3. Submission of 10 % of Total Accreditation Fee

The institution is required to submit 10 per cent of the total applicable accreditation fee (as prompted by eNBA portal) (see Annexure I: Fee Structure) along with duly filled-in pre-qualifiers for further processing of the application. This first stage fee is non-refundable. If all the pre-qualifiers applied through an application are not approved, then the application is not processed further and the institution is informed accordingly.

All pre-assessment steps mentioned-above (4.1.2.1 to 4.1.2.3) should be completed within 30 days from the generation of the temporary application. If all these steps are not completed within 30 days, the application needs to be regenerated and PQs needs to be filled again.

4.1.3. Assessment Stage

4.1.3.1. Submission of Self-Assessment Report (SAR)

Submission of Self-Assessment Report (SAR) and Assessment by Visiting Team of NBA involves the following steps:

- ☞ Once the Pre-Qualifiers are approved, the institution is required to fill-in the e-SARs for the programs whose pre-qualifiers are approved as prompted by eNBA portal.
- ☞ To fill-in e-SAR (See Annexure III - SAR), login into eNBA portal, click at “PQ/e-SAR” under “Application” and start filling the e-SAR online for each program. The information filled in Pre-Qualifier come prefilled (such as student information and faculty details) in the e-SAR and institutions are required to fill rest of the information. The e-SAR contains more detailed information about the programs and helps the institution to

self-assess itself on each accreditation criteria. It is an opportunity for the institution to showcase its strengths, weaknesses, etc. for evaluation and assessment criteria of NBA. However, e-SAR is expected to be factual and not narrative. Screenshot of the Index Page of eSAR is given below as an example in Fig. 5.



Fig.5: Screenshot of eSAR: Index Page

- Once all e-SAR of individual programs are submitted, click on the final submit button and pay the remaining 90% fees for all the programs whose e-SAR has been submitted (See Annexure I – Fee Structure). Institution can view the submitted e-SAR online and save it as PDF. The e-SAR submitted online is automatically forwarded to NBA for further necessary action.
- On submission of e-SAR, institution is invited to suggest dates for the visit and prepare itself for the visit as shown in Fig. 5. Submit five sets of dates for the visit. The institution is required to propose such sets of dates for the visit when the regular classes and all academic activities of the program applied for accreditation are on. NBA selects one set of dates and communicates the same to the institution. After receiving the concurrence of the institution, the dates of visit are fixed, and Visiting Team of NBA conducts the visit.

The screenshot shows the 'Application Detail' form. At the top, there is a dropdown menu for 'Application Number' with the text '--Select--'. Below this, there is a section titled 'Proposed Set of Visit Dates for Expert Visit to the Institution'. This section contains a table with five columns labeled 'Slot 1' through 'Slot 5'. Each column has two rows: 'From' and 'To', each with an input field. At the bottom right of the table, there are two buttons: 'Submit' and 'Cancel'.

	Slot 1	Slot 2	Slot 3	Slot 4	Slot 5
From	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
To	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Fig. 6: Propose Five Sets of Dates for Visiting Team

4.1.3.2. Visiting Team to the Institution for Accreditation

- ☞ Once the Institution confirms the visit date, NBA constitutes the visit team. An accreditation visit to the institution is held for 3 days. However, visit for a single program is held for 2 days. This excludes the pre-visit meeting, which is held on day 0 at the place of stay. The Visiting Team consists of a Chairperson and two Program Evaluators for each program.
- ☞ While constituting a Visiting Team, NBA checks for the Conflict of Interest, i.e., expert must not be from the same State as of the institution and should not have any professional relation with the institution and/or program. Declaration and Feedback to be taken from the Chairperson and Evaluators is enclosed as Part C of Annexure IX and X respectively.
- ☞ The complete evaluation process including composition of Visiting Team, criteria for nomination, general policies for team formation, etc. have been elaborated in Part III of General Manual available at <http://www.nbaind.org/files/general-manual-of-accreditation.pdf>.
- ☞ The following Evaluation Documents that are helpful to the Visiting Team in preparing themselves for the visit as well as guiding them on processes and procedures to be followed are annexed in this Manual:
 - ✓ Pre-visit Preparation for Chairperson (Annexure IV)
 - ✓ Pre-visit Evaluation Report for Evaluator (Annexure V)
 - ✓ Visit Schedule (Annexure VI)
 - ✓ List of Documents to be Verified during the Visit (Annexure VII)
 - ✓ Evaluation Guidelines (Annexure VIII)
 - ✓ Chairperson's Visit Report (Part A, B and C) (Annexure IX)
 - ✓ Evaluator's Visit Report (Part A, B and C) (Annexure X)
 - ✓ Certificate of Participation (to be filled-in by the Chairperson of the Visiting Team) (Annexure XI)
 - ✓ Certificate and Feedback to be filled-in by the Institution (Annexure XII, XIII)

4.1.3.3. Accreditation Visit

The visit of the Evaluation Team is arranged to the institution seeking accreditation of its program(s) to evaluate and validate the assessment of the institution/department through the SAR of the program concerned as per specified accreditation criteria. Although it may not be possible to describe adequately all the factors to be assessed during the on-site visit, some of the common ones are the following:

- i) Outcomes of the education provided;
- ii) Quality assurance processes; including internal reviews;
- iii) Assessment;

- iv) Activities and work of the students;
- v) Entry standards and selection for admission of students;
- vi) Motivation and enthusiasm of faculty;
- vii) Qualifications and activities of faculty members;
- viii) Infrastructure facilities;
- ix) Laboratory facilities;
- x) Library facilities;
- xi) Industry participation; and
- xii) Organization.

In order to assist the Evaluation Team in its assessment, the educational institution should arrange for the following:

A) Meeting with:

- a. The Head of the Institution/Dean/Heads of Department (HoD)/Program and Course Coordinators;
- b. Member(s) of the management (to discuss how the program fits into overall strategic direction and focus of the institution, and management support for continued funding and development of the program);
- c. Faculty members;
- d. Alumni;
- e. Employers;
- f. Students; and
- g. Parents.

B) Availability of the following Exhibits:

- a. Profile of faculty involved in the program;
- b. Evidence that the results of assessment of course outcomes and program outcomes are being applied to the review and ongoing improvement of program effectiveness;
- c. List of publications, consultancy and sponsored/funded research projects by the program faculty;
- d. Sample materials for theory and laboratory courses;
- e. Sample test/semester examination question papers for all courses;
- f. Sample of test/semester examination answer scripts projects, assignments, (including at least one excellent, one good and one marginal pass for each examination) question papers and evidences related to assessment tools for COs and POs;

- g. Student records of three immediate batches of graduates;
- h. Sample project and design reports (excellent, good and marginal pass) by students;
- i. Sample student Feedback Form;
- j. Sample for industry-institution interaction;
- k. Results of quality assurance reviews;
- l. Records of employment/higher studies of graduates;
- m. Records of academic support and other learning activities; and
- n. Any other document that the Evaluation Team/NBA may require.

A) Visit to:

- a. Classrooms;
- b. Laboratories pertaining to the program;
- c. Central and department library; and
- d. Computer Centre.

The Visiting Team should conduct an Exit Meeting with the Management Representative, the Head of the Institution, the Head of Department and other key officials at the end of the on-site visit to present its findings (strengths, concerns, weaknesses and deficiencies). The institution is given a chance to withdraw one or more programs from the process of accreditation. In this case, the Head of the Institution shall have to submit the withdrawal in writing to the Chairperson of the Visiting Team during the Exit Meeting. No request for withdrawal shall be accepted after the exit meeting.

4.1.3.4. 360 Degree Feedback

Appraisal 360° works by gathering the opinions of a number of people. A series of carefully structured questions prompt one to assess skills in a number of key areas. A number of other people are then asked to give their perception by answering a set of questions, which are then compiled into a feedback report. It is envisaged that such feedback will help in bringing transparency and objectivity in the evaluation process which will help in improving quality of the accreditation process, the cherished goal of all the stakeholders.

The 360° Feedback Forms are made available online to the Institutions, Chairperson and the Evaluators by NBA. They have the flexibility to either fill-in the form online or download the form and submit the same by mail within 3 days.

- A. Feedback Form to be Filled-in by the Head of the Institution: This format mainly focuses on the feedback on the entire Visiting Team comprising the Chairperson and Evaluators regarding the accreditation and evaluation process and seeking comments about the general behavior of the Visiting Team.
- B. Feedback Form to be Filled-in by the Chairperson: This format mainly focuses on the feedback on the performance of the evaluators and also about the cooperation and coordination rendered by the institution at the time of accreditation visit.

- C. Feedback to be Form Filled-in by the Evaluators: This format mainly focuses on the feedback on the Chairperson, Co-evaluators and also about the cooperation and coordination rendered by the institution at the time of accreditation visit.
- D. Feedback to be form Filled-in by the Chairperson / Evaluators in respect of Service Provider: This format mainly focuses on the feedback on the performance of the service providers during the visit of accreditation.

4.1.4. Post-Assessment Stage

4.1.4.1. Processing of Evaluation Report

Processing of Evaluation Report submitted by the Visiting Team involves the following steps:

- ☞ Once the accreditation visit is completed, the experts prepare the evaluation report and submit it to the NBA.
- ☞ The report is first placed before the Moderation Committee. The Moderation Committee considers the Evaluation Report and find out the borderline cases. The observations of the Moderation Committee, for such cases are communicated to the institution for seeking necessary clarification within 10 days of submission of evaluation report. Response of the institution is sent to Chairperson of the Visiting Team.
- ☞ The Visiting Team Report, observations of Moderation Committee and the response of the institution are considered by the EEAC (Engineering Evaluation and Accreditation Committee) in the presence of Chairperson of the Visiting Team.
- ☞ The recommendations of the EEAC are considered by the concerned Sub Committee of AAC of Engineering for taking a final decision on accreditation status. The final status of accreditation, as per the decision of Sub-committee of AAC, is communicated to the institution by NBA.

4.2 Award of Accreditation

- i) Accreditation of the Program for Six years;
- ii) Accreditation of the Program for Three years; and
- iii) No Accreditation of the Program.

The accreditation is awarded based on the fulfilment of the following requirements:

4.2.1 Accreditation for Six years will be awarded to a program on fulfilment of the following requirements:

- ☞ Program should score a minimum of 750 points in aggregate out of 1000 points with minimum score of 60 per cent in mandatory fields (i.e. Criteria 4 to 6).
- ☞ Number of available Ph.D. in the department should be greater than or equal to 30 per cent of the required number of faculty, averaged over two academic years i.e. Current Academic Year (CAY) and Current Academic Year Minus One (CAYM1).

- ☞ The admissions in the UG program should be more than or equal to 50 per cent, averaged over three academic years (including lateral entry), i.e., Current Academic Year minus One (CAYm1), Current Academic Year minus Two (CAYm2) and Current Academic Year minus Three (CAYM3).
- ☞ Faculty Student Ratio in the department should be less than or equal to 1:20, averaged over three academic years i.e. Current Academic Year (CAY), Current Academic Year Minus One (CAYM1) and Current Academic Year Minus Two (CAYM2).
- ☞ At least 2 Professors or 1 Professor and 1 Associate Professor on regular basis with Ph.D. degree should be available in the respective department for two academic years i.e. Current Academic Year (CAY) and Current Academic Year Minus One (CAYM1).
- ☞ HoD of the program under consideration possesses Ph.D. degree in the Current Academic Year (CAY).

4.2.2 Accreditation for three years will be awarded to a program on fulfilment of the following requirements:

- ☞ Program should score a minimum of 600 points with atleast 40 per cent marks in Criterion V (Faculty Information and Contributions).
- ☞ The admissions in the UG program should be more than or equal to 50 per cent, averaged over three academic years (including lateral entry), i.e., Current Academic Year minus One (CAYm1), Current Academic Year minus Two (CAYm2) and Current Academic Year minus Three (CAYM3).
- ☞ At least one Professor or one Associate Professor on regular basis with Ph.D. degree is available in the respective department for two academic years i.e. Current Academic Year (CAY) and Current Academic Year Minus One (CAYM1).
- ☞ The faculty student ratio in the department under consideration should be less than or equal to 1:25, averaged over three academic years i.e. Current Academic Year (CAY), Current Academic Year Minus One (CAYM1) and Current Academic Year Minus Two (CAYM2).
- ☞ Number of Ph.D. available in the department should be greater than or equal to 10 per cent of the required number of faculty, averaged over two academic years i.e. Current Academic Year (CAY) and Current Academic Year Minus One (CAYM1).

4.2.3 No Accreditation of the Programs

- ☞ If the program fails to meet the criteria for award of accreditation for three years, it is awarded “Not Accredited” status.

4.3 Appeal

If the institution is not satisfied with the NBA's decision on the Status of Accreditation, then the institution can make an appeal against the decision within 30 days of date of receipt of communication from NBA along with the fee given in Annexure I: Fee Structure. The appeal is placed before the Appellate Committee in which the institutions are invited to present their case before the Committee. The recommendations of Appellate Committee are considered by the Academic Advisory Committee (AAC) for taking decision on appeal.

4.4 Continuation of Accreditation

Institutions that have already been granted accreditation for a period of three years, are required to submit the Compliance Report at least 6 months before the expiry of validity of accreditation along with the compliance fee.

On receipt of Compliance Report, a two-member Visiting Team of experts is constituted by NBA for the visit of the institution. The report of the Visiting Team is considered by the concerned committees in NBA for continuation (or otherwise) of accreditation for an appropriate period.

4.5 Accreditation Fee

Any institution which applied for accreditation is required to pay the fee at various stages as per the details given in Annexure I: Fee Structure.

4.6 Reconsideration of Programs

If a program is 'not accredited' or withdrawn during the visit, a fresh application for accreditation of the same program can be considered after one year from the date of previous visit of the Visiting Team.

Note: For all other general information, please refer to the General Manual for Accreditation or contact NBA.

Annexure I

Fee Structure

1. Registration Fee

The Registration Fee amount is Rs.1,00,000 only + (Taxes as applicable from time-to-time)

2. Accreditation Fee

- a. Processing Fees to be paid by the Institutions for NBA Accreditation of Programmes except Engineering Diploma Programmes:

No. of Programmes to be Accredited	Payment to be made with the application + applicable taxes*
1	2,00,000 + Taxes
2	4,00,000 + Taxes
3	6,00,000 + Taxes
4	8,00,000 + Taxes
5	10,00,000 + Taxes

The revised Accreditation fee is effective from 1st November 2019.

- b. Processing fees to be paid by the institutions for NBA accreditation of Engineering Diploma Program:

No. of Programs to be Accredited	Payment to be made with the application plus taxes as application plus taxes as applicable (Amount in Rupees)
1	2,00,000 + Taxes
2	3,50,000 + Taxes
3	5,00,000 + Taxes
4	6,50,000 + Taxes
5	8,00,000 + Taxes

3. Appeal Fee

Rs. 1,50,000/- per program + Taxes as applicable from time-to-time

4. Compliance Fee

a. UG Engineering Programs

No. of Programs to be Accredited	Payment to be made with the application plus taxes as applicable (Amount in Rupees)
1	2,00,000 + Taxes
2	2,50,000 + Taxes
3	3,00,000 + Taxes
4	3,50,000 + Taxes
5	4,00,000 + Taxes

b. UG Pharmacy Programs

No. of Programs to be Accredited Payment to be made with the application plus taxes as applicable (Amount in Rupees)

No. of Programs to be Accredited	Payment to be made with the application plus taxes as applicable (Amount in Rupees)
1	1,00,000 + Taxes
2	1,50,000 + Taxes
3	2,00,000 + Taxes
4	2,50,000 + Taxes
5	3,00,000 + Taxes

Mode of Payment

The institution may pay the fee (Registration/Accreditation) by the following modes:

- i. Net Banking
- ii. Credit/ Debit Card
- iii. NEFT/RTGS as per the details given below:-

A/c Name: National Board of Accreditation

A/c No: 054805000417

IFC Code: ICIC0000548

Branch Address: Bhisham Pitamah Marg, Pragati Vihar, New Delhi - 110003GST

Registration No: 07AAAAN8753G1ZF

PAN Registration No: AAAAN8753G

With regard to the payment through eNBA, please indicate GST Registration No. of your organization.

Annexure II

Pro-forma for Pre-Qualifiers TIER-II Institutions

PART A- Profile of the Institution

Name of the Program applied for:

A1. Name of the College:

Year of Establishment:

Location of the College:

A2. Address:

City:

State:

Pin Code:

Website:

E-mail:

STD Code:

Phone No:

Fax STD Code:

Fax:

A3. Head of the Institution:

Name:

Designation:

Status of Appointment:

A4. Contact details of Head of the Institution:

STD Code:

Telephone No:

Mobile:

E-mail:

Fax STD Code:

Fax No:

A5. Name of the Affiliating University:

Address:

City:

State:

Pin Code:

Website:

E-mail:

STD Code:

Phone No:

A6. Type of the Institution:

University Deemed University Government Aided
 Autonomous Affiliated

A7. Ownership Status

Central Government State Government Government Aided
 Self financing Trust Society
 Section 25 Company Any Other (Please specify) Provide Details

A8. Students Admissions (Institution level considering all UG programs):

Item	CAY 2017-18	CAYm1 2016-17	CAYm2 2015-16	Total
Sanctioned intake				
Number of students admitted				
% of students admitted for previous three academic years including current academic year (Total Admitted/Sanctioned Intake)				

Kindly note that the year mentioned here is exemplary, institution has to consider the academic years as per the definition of CAY given in the document and according to the prevailing year.

Table A: 8

CAY: Current Academic Year

CAYm1: Current Academic Year minus 1 = Current Assessment Year

CAYm2: Current Academic Year minus 2 = Current Assessment Year minus 1

A9. Campus Information:

Does the College have its own building:

Sports Complex:

Canteen and Hostel (If any):

Medical Room:

Computer Laboratories:

Counselling and guidance:

Placement:

A10. Names of programs offered by the college:

UG:

PG:

Note: Please mention department wise.

A11. Programs to be considered for accreditation vide this application.

Sl. No.	Program Name

Table A: 11

PART B- Program information as per point A11

(To be filled in separately for all the programs applied for)

B1. Provide separate information for each program applied for (including shifts, if any):

Name of the Department	Name of the programs running	Name of the program to be considered	Year of start	Initial intake	Increase/decrease in intake, if any (mention the No. of seats increased/ decreased)	Year of increase	AICTE Approval Letter No.	Accreditation Status*

Table B: 1

Note: Please mention all increased intake starting from the first increase for all programs

*** Write applicable one:**

- Applying first time
- Granted accreditation for ---years period, i.e. from (year)to(year)
- Not accredited (specify visit dates, year)
- Withdrawn (specify visit dates, year)
- Not eligible for accreditation
- Eligible but not applied

B2. Student Admissions (Program specific):

Item	CAY 2019-20	CAYm1 2018-19	CAYm2 2017-18	CAYm3 2016-17
Total number of students admitted in first year (N1)				
Number of students admitted in 2nd year in the same batch via lateral entry (N2)				
Total number of students admitted in the Program (N1 + N2)				
% of Students Admitted over the previous three academic years starting from CAYm1 (Total Admitted/Sanctioned Intake):				

Kindly note that the years mention here is for example only, institute is required to consider the academic years as per the definition of CAY given in the document and according to the prevailing year. The % of student admitted in the program is to be restricted upto

Table B2.1

CAY: Current Academic Year

CAYm1: Current Academic Year minus 1 = Current Assessment Year

CAYm2: Current Academic Year minus 2 = Current Assessment Year minus1

CAYm3: Current Academic Year minus 3 = Current Assessment Year minus2

B3. Information of Faculty

Please provide the list of faculty in the Department as per the below format separately (year wise) for each year under consideration

Sl. No.	Name	PAN No.	Qualification	Area of Specialization	Designation	Date of Joining	Date on which Designated as Professor/ Associate Professor	Currently Associated (Y/N)	Nature of Association (Regular/Contract / Adjunct)	If contractual mention Full time or Part time	Date of Leaving (In case currently associated is "No")
1.											
2.											

Table B3

B3.1. No. of the Available Faculty

Sl. No.	Designation/Numbers	Number of Faculty in the Department for both UG and PG	
		CAY (2016-17)	CAY (2015-16)
1.	Professor		
2.	Associate Professor		
3.	Assistant Professor		
4.	Number of Ph.D.* (as per the AICTE norms)		

Kindly note that the year mentioned here is exemplary, institution has to consider the academic years as per the definition given in the document and according to the prevailing year.

Table B: 3.1

- At least one Professor or Associate professor with Ph.D. degree on regular basis should be available

B3.2. Details of the Head of the Department for the Program under Consideration

Name:

Qualification:

Ph.D.:

Others :

B.4. Student Faculty Ratio (No of Faculty as per the Sanctioned Intake)

(To be calculated at Department Level)

(No. of UG Programs in the Department (n): _____)

(No. of PG Programs in the Department (m): _____)

(No. of Students in UG 2nd Year = **u1**)(No. of Students in UG 3rd Year = **u2**)(No. of Students in UG 4th Year = **u3**)(No. of Students in PG 1st Year = **p1**)(No. of Students in PG 2nd Year = **p2**)

(No. of Students = Sanctioned Intake + Actual Admitted Lateral Entry Students)

(The above data to be provided considering all the UG and PG programs of the department)**S** = Number of Students in the Department = UG1 + UG2 + .. + UGn + PG1 + ...PGm**F** = Total Number of Faculty Members in the Department (excluding first year faculty)

Student Teacher Ratio (STR) = S / F

Year	CAY	CAYm1	CAYm2
u1.1			
u1.2			
u1.3			
UG1	u1.1+u1.2+u1.3	u1.1+u1.2+u1.3	u1.1+u1.2+u1.3
...			
u _n .1			
u _n .2			
u _n .3			
UGn	u_n.1+u_n.2+u_n.3	u_n.1+u_n.2+u_n.3	u_n.1+u_n.2+u_n.3
p1.1			
p1.2			
PG1	p1.1+p1.2	p1.1+p1.2	p1.1+p1.2
.....			
pm.1			
pm.2			
PGm	pm.1+pm.2	pm.1+pm.2	pm.1+pm.2
Total No. of Students in the Department (S)	UG1 + UG2 + .. + UGn + PG1 + ... + PGm	UG1 + UG2 + .. + UGn + Pg1+... + PGm	UG1 + UG2 + .. + UGn + Pg1+... + PGm
No. of Faculty in the Department (F)	F	F	F
Student Faculty Ratio (SFR)	SFR1 = S1/F1	SFR2 = S2/F2	SFR3 = S3/F3
Average SFR	SFR = (SFR1 + SFR2 + SFR3)/3		

Table B: 4

Note: All the faculty whether regular or contractual (except Part-Time), will be considered. The contractual faculty (doing away with the terminology of visiting/adjunct faculty, whatsoever) who have taught for 2 consecutive semesters in the corresponding academic year on full time basis shall be considered for the purpose of calculation in the Faculty Student Ratio.

However, following will be ensured in case of contractual faculty:

1. Shall have the AICTE prescribed qualifications and experience.
2. Shall be appointed on full time basis and worked for consecutive two semesters during the particular academic year under consideration.
3. Should have gone through an appropriate process of selection and the records of the same shall be made available to the visiting team during NBA visit.

Compliance Status to Pre-Visit Qualifiers

Sl. No.	Pre-Visit Qualifiers	Current Status	Compliance Status Complied/Not Complied
Essential Qualifiers			
1	Vision, Mission & PEOs I. Are the Vision & Mission of the Department Stated in the Prospectus / Website? ii. Are the PEOs of the Program Listed in the Prospectus / Website?		
2	Whether Approval of AICTE for the Programs under Consideration has been Obtained for all the Years including Current Year?		
3	Whether the admissions in the UG program are more than or equal to 50 per cent, averaged over three academic years (including lateral entry), i.e., Current Academic Year minus One (CAYm1), Current Academic Year minus Two (CAYm2) and Current Academic Year minus Three (CAYM3).	% Admission	
4	Whether Faculty Student Ratio in the Department under consideration is better than or Equal to 1:25 average of CAY, CAYm1 and CAYm2?	SFR	
5	Whether at least one Professor or one Associate Professor on Regular Basis with Ph.D. Degree is available in the respective Department during CAY and CAYm1?		
6	Whether Number of available Ph.Ds. in the Department is greater than or Equal to 10% of the Required Number of Faculty Average of CAY and CAYm1?		
7	Whether two Batches have Passed Out in the Programs under Consideration?		

Sl. No.	Pre-Visit Qualifiers	Current Status	Compliance Status Complied/Not Complied
Desirable Parameters			
1	Whether Department has Program Assessment and Quality Improvement Committee? If so, its Constitution and Mandate.		
2	Whether the Departments under Consideration Receives Separately Earmarked Funds for: I. Maintenance of Laboratory / Computational Facilities (recurring funds) ii. Up-gradation of Laboratory / Computation Facilities (non-recurring funds)		
3	Whether HoDs Possess Ph.D Degrees for the Programs under Consideration?		
4	Whether Number of Available Ph.Ds in the Department Exceeds 15% of the Required Number of Faculty for Previous two Academic Years?		
5	Whether Admissions in the Under-graduate Programs under Consideration has been More than 60%?(average of the previous three academic years)		

*Total number of students admitted in first year minus number of students migrated to other institutions, plus the number of students migrated to this institution divided by the sanctioned intake.

**Total number of students admitted in first year in the respective program minus number of students migrated to other programs/ institutions plus the number of students migrated to this program divided by the sanctioned intake in the respective program.

Annexure III

SAR CONTENTS

Serial No.	Item	Page No.
PART A	Institutional Information	
PART B	Criteria Summary	
	Program Level Criteria	
1	Vision, Mission and Program Educational Objectives	
2	Program Curriculum and Teaching – Learning Processes	
3	Course Outcomes and Program Outcomes	
4	Students' Performance	
5	Faculty Information and Contributions	
6	Facilities and Technical Support	
7	Continuous Improvement	
	Institute Level Criteria	
8	First Year Academics	
9	Student Support Systems	
10	Governance, Institutional Support and Financial Resources	
PART C	Declaration by the Institution	
Appendix-I	Program Outcomes(POs) and Program Specific Outcomes(PSOs)	

(Page No. according to the Numbering Manual)

PART A: INSTITUTIONAL INFORMATION

1. Name and Address of the Institution:

2. Name and Address of the Affiliating University:

3. Year of establishment of the Institution:

4. Type of the Institution:

University	<input type="checkbox"/>
Deemed-to-be-University	<input type="checkbox"/>
Government Aided	<input type="checkbox"/>
Autonomous	<input type="checkbox"/>
Affiliated	<input type="checkbox"/>

5. Ownership Status:

Central Government	<input type="checkbox"/>
State Government	<input type="checkbox"/>
Government Aided	<input type="checkbox"/>
Self-financing	<input type="checkbox"/>
Trust	<input type="checkbox"/>
Society	<input type="checkbox"/>
Section 25 Company	<input type="checkbox"/>
Any Other (Please specify)	<input type="checkbox"/>

Provide Details

6. Other Academic Institutions of the Trust/Society/Company, etc., if any:

Name of the Institution (s)	Year of Establishment	Programs of Study	Location

Table A.6

Note: Add rows as needed.

7. Details of all the Programs being Offered by the Institution under Consideration

Sl. No.	Program Name	Name of the Department	Year of Start	Intake	Increase in Intake, if any	Year of Increase	AICTE Approval	Accreditation Status*

Table A.7

*** Write applicable one:**

Applying first time

- Granted accreditation for two / three years for the period (specify period)
- Granted accreditation for five / six years for the period (specify period)
- Not accredited (specify visit dates, year)
- Withdrawn (specify visit dates, year)
- Not eligible for accreditation
- Eligible but not applied

8. Programs to be Considered for Accreditation vide this Application

Sl. No.	Program Name
1	
N	

Table A.8

9. Total Number of Employees

A. Regular Employees (Faculty and Staff):

Items		CAY		CAYm1		CAYm2	
		Min	Max	Min	Max	Min	Max
Faculty in Engineering	M						
	F						
Faculty in Maths, Science & Humanities teaching in Engineering Programs	M						
	F						
Non-teaching staff	M						
	F						

Table: A.9a

Note: All the faculty whether regular or contractual (except Part-Time), will be considered. The contractual faculty (doing away with the terminology of visiting/adjunct faculty, whatsoever) who have taught for 2 consecutive semesters in the corresponding academic year on full time basis shall be considered for the purpose of calculation in the Faculty Student Ratio.

However, following will be ensured in case of contractual faculty:

1. Shall have the AICTE prescribed qualifications and experience.
2. Shall be appointed on full time basis and worked for consecutive two semesters during the particular academic year under consideration.
3. Should have gone through an appropriate process of selection and the records of the same shall be made available to the visiting team during NBA visit.

CAY – Current Academic Year

CAYm1- Current Academic Year minus1 = Current Assessment Year

CAYm2 - Current Academic Year minus2 = Current Assessment Year minus 1

B. Contractual Staff Employees (Faculty and Staff): (Not covered in Table A.9a)

Items		CAY		CAYm1		CAYm2	
		Min	Max	Min	Max	Min	Max
Faculty in Engineering	M						
	F						
Faculty in Maths, Science & Humanities teaching in	M						
	F						
Non-teaching staff	M						
	F						

Table: A.9b

10. Total Number of Engineering Students

Item	CAY	CAYm1	CAYm2
Total no. of boys			
Total no. of girls			
Total no. of students			

Table: A.10

(Instruction: The data may be categorized in tabular form separately for undergraduate, postgraduate engineering, other program, if applicable)

Note: In case, the institution is running programs other than engineering programs, a separate table giving similar details is to be included.

11. Vision of the Institution**12. Mission of the Institution****13. Contact Information of the Head of the Institution and NBA coordinator, if designated:**

- i. Name:
- Designation:
- Mobile No:
- Email id:

ii. NBA coordinator, if designated

Name:

Designation:

Mobile No:

Email id:

PART B: CRITERIA SUMMARY

Name of the Program _____

Criterion No.	Criteria	Marks/Weightage
Program Level Criteria		
1.	Vision, Mission and Program Educational Objectives	60
2.	Program Curriculum and Teaching –Learning Processes	120
3.	Course Outcomes and Program Outcomes	120
4.	Students' Performance	150
5.	Faculty Information and Contributions	200
6.	Facilities and Technical Support	80
7.	Continuous Improvement	50
Institution Level Criteria		
8.	First Year Academics	50
9.	Student Support Systems	50
10.	Governance, Institutional Support and Financial Resources	120
	Total	1000

PART B: PROGRAM LEVEL CRITERIA

CRITERION 1	Vision, Mission and Program Educational Objectives	60
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1. VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES (60)

1.1. State the Vision and Mission of the Department and Institution (5)

(Vision statement typically indicates aspirations and Mission statement states the broad approach to achieve aspirations)

(Here Institution Vision and Mission statements have been asked to ensure consistency with the department Vision and Mission statements; the assessment of the Institution Vision and Mission will be taken up in Criterion 10)

1.2. State the Program Educational Objectives (PEOs) (5)

(State the PEOs (3 to 5) of program seeking accreditation)

1.3. Indicate where the Vision, Mission and PEOs are Published and Disseminated among Stakeholders (10)

(Describe where (websites, curricula, posters, etc.) the Vision, Mission and PEOs are published and detail the process which ensures awareness among internal and external stakeholders with effective process implementation)

(Internal stakeholders may include Management, Governing Board Members, faculty, support staff, students etc. and external stakeholders may include employers, industry, alumni, funding agencies, etc.)

1.4. State the Process for Defining the Vision and Mission of the Department, and PEOs of the Program (25)

(Articulate the process for defining the Vision and Mission of the department and PEOs of the program)

1.5. Establish Consistency of PEOs with Mission of the Department (15)

(Generate a “Mission of the Department – PEOs Matrix” with justification and rationale of the mapping)

PEO Statements	M1	M2	Mn
PEO1:				
PEO2:				
PEON:				

Table: B.1.5

Note: M1, M2,...Mn are distinct elements of Mission statement. Enter correlation levels 1, 2 or 3 as defined below: **1: Slight (Low)** **2: Moderate (Medium)** **3: Substantial (High)**

It there is no correlation, put “-”

Note: In this document wherever the term ‘Process’ has been used its meaning is process formulation, notification and implementation.

CRITERION 2	Program Curriculum and Teaching –Learning Processes	120
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2.1. Program Curriculum (20)

2.1.1. State the Process used to Identify Extent of Compliance of the University Curriculum for Attaining the Program Outcomes and Program Specific Outcomes as Mentioned in Appendix I of SAR . Also Mention the Identified Curricular Gaps, if any (10)

(State the process details; also mention identified curricular gaps).

Note: In case, all POs are being demonstrably met through University Curriculum, then 2.1.2 will not be applicable and the weightage of 2.1.1 will be 20.

2.1.2. State the Delivery Details of the Content Beyond the Syllabus for Attainment of POs and PSOs (10)

(Provide details of the additional course/learning material/content/laboratory experiments/projects, etc., arising from the gaps identified in 2.1.1 in a tabular form in the format given below)

CAYm1

Sl. No.	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	%of Students	Relevance to POs, PSOs

Table: B.2.1.2a

CAYm2

Sl. No.	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	%of Students	Relevance to POs, PSOs

Table: B.2.1.2b

CAYm3

Sl. No.	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	%of Students	Relevance to POs, PSOs

Table: B.2.1.2c

Note: Please mention *in detail* whether the Institution has given such inputs and suggestions to the Affiliating University regarding curricular gaps and possible addition of new content/add-on courses in the curriculum, to bridge the gap and to better attain Program Outcome(s).

2.2. Teaching - Learning Processes (100)

2.2.1. Describe Processes Followed to Improve Quality of Teaching & Learning (25)

(Processes may include adherence to academic calendar and improving instruction methods using pedagogical initiatives such as real world examples, collaborative learning, quality of laboratory experience with regard to conducting experiments, recording observations, analysis of data, etc. encouraging bright students, assisting weak students, etc. The implementation details and impact analysis need to be documented)

2.2.2. Quality of Internal Semester Question papers, Assignments and Evaluation (20)

(Mention the initiatives, implementation details and analysis of learning levels related to quality of semester question papers, assignments and evaluation)

2.2.3. Quality of Student Projects (25)

(Quality of the project is measured in terms of consideration to factors including, but not limited to, environment, safety, ethics, cost, type (application, product, research, review, etc.) and standards. Processes related to project identification, allotment, continuous monitoring, evaluation including demonstration of working prototypes and enhancing the relevance of projects. Mention Implementation details including details of POs and PSOs addressed through the projects with justification)

2.2.4. Initiatives related to Industry Interaction (15)

(Give details of the industry involvement in the program such as industry-attached laboratories, partial delivery of appropriate courses by industry experts, etc. Mention the initiatives, implementation details and impact analysis)

2.2.5. Initiatives related to Industry Internship / Summer Training (15)

(Mention the initiatives, implementation details and impact analysis)

CRITERION 3	Course Outcomes (CO) and Program Outcomes (PO)	120
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3.1. Establish the Correlation between the Courses and the Program Outcomes (POs) and Program Specific Outcomes (PSOs) (20)

(Program Outcomes as mentioned in Appendix I of SAR and Program Specific Outcomes as defined by the Program)

3.1.1. Course Outcomes (COs) (SAR should include course outcomes of one course from each semester of study, however, should be prepared for all courses and made available as evidence, if asked) (05)

Note: Number of Outcomes for a Course is expected to be around 6.

Course Name: Ciii ; **Year of Study:** YYYY – YY; for ex. C202 Year of study 2013-14

C202.1	< Statement >
C202.2	< Statement >
C202.3	< Statement >
.....	< Statement >
C202.N	< Statement >

Table: B.3.1.1

C202 is the second course in second year and '.1' to '.6' are the outcomes of this course.

3.1.2. CO-PO matrices of courses selected in 3.1.1 (six matrices to be mentioned; one per semester from 3rd to 8th semester) (05)

Course	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012
C202.1												
C202.2												
C202.3												
.....												
C202.N												
C202												

Table: B.2.1.2

Note:

1. Enter correlation levels 1, 2 or 3 as defined below:

1: Slight (Low)

2: Moderate (Medium)

3: Substantial (High)

It there is no correlation, put “-”

2. Similar table is to be prepared for PSOs

3.1.3. Program Level Course-PO Matrix of all Courses INCLUDING First Year Courses (10)

CO	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012
C101												
C202												
C303												
.....												
.....												
C4...												

Table B.3.1.3

Note:

1. Enter correlation levels 1, 2 or 3 as defined below:

1: Slight (Low)

2: Moderate (Medium)

3: Substantial (High)

It there is no correlation, put “-”

It may be noted that contents of Table 3.1.2 must be consistent with information available in Table 3.1.3 for all the courses.

2. Similar table is to be prepared for PSOs

3.2. Attainment of Course Outcomes (50)

3.2.1. Describe the Assessment Processes used to Gather the Data upon which the Evaluation of Course Outcome is based (10)

(Examples of data collection processes may include, but are not limited to, specific exam/tutorial questions, assignments, laboratory tests, project evaluation, student portfolios (A portfolio is a collection of artifacts that demonstrate skills, personal characteristics and accomplishments created by the student during study period), internally developed assessment exams, project presentations, oral exams, etc.)

3.2.2. Record the Attainment of Course Outcomes of all Courses with respect to Set Attainment Levels (40)

Program shall have set Course Outcome attainment levels for all courses.

(The attainment levels shall be set considering average performance levels in the university examination or any higher value set as target for the assessment years. Attainment level is to be measured in terms of student performance in internal assessments with respect to the Course Outcomes of a course in addition to the performance in the University examination)

Measuring Course Outcomes attained through University Examinations

Target may be stated in terms of percentage of students getting more than the university average marks or more as selected by the Program in the final examination. For cases where the university does not provide useful indicators like average or median marks, etc., the program may choose an attainment level on its own with justification.

Example related to attainment levels Vs. targets: (The examples indicated are for reference only. Program may appropriately define levels)

Attainment Level 1: 60% students scoring more than University average percentage marks or set attainment level in the final examination.

Attainment Level 2: 70% students scoring more than University average percentage marks or set attainment level in the final examination.

Attainment Level 3: 80% students scoring more than University average percentage marks or set attainment level in the final examination.

- ☞ Attainment is measured in terms of actual percentage of students getting set percentage of marks.
- ☞ If targets are achieved then all the Course Outcomes are attained for that year. Program is expected to set higher targets for the following years as a part of continuous improvement.
- ☞ If targets are not achieved the program should put in place an action plan to attain the target in subsequent years.

Measuring CO attainment through Internal Assessments: (The examples indicated are for reference only. Program may appropriately define levels)

Target may be stated in terms of percentage of students getting more than class average marks or set by the program in each of the associated COs in the assessment instruments (midterm tests, assignments, mini projects, reports and presentations etc. as mapped with the COs)

Example

Mid-term test 1 addresses C202.1 and C202.2. Out of the maximum 20 marks for this test 12 marks are associated with C202.1 and 8 marks are associated with C202.2.

Examples related to attainment levels Vs. targets:

Attainment Level 1: **60%** students scoring more than 60% marks out of the relevant maximum marks.

Attainment Level 2: **70%** students scoring more than 60% marks out of the relevant maximum marks.

Attainment Level 3: **80%** students scoring more than 60% marks out of the relevant maximum marks.

- ☞ Attainment is measured in terms of actual percentage of students getting set percentage of marks.
- ☞ If targets are achieved then all the Course Outcomes are attained for that year. Program is expected to set higher targets for the following years as a part of continuous improvement.
- ☞ If targets are not achieved the program should put in place an action plan to attain the target in subsequent years.

Similar targets and achievement are to be stated for the other midterm tests/internal assessment instruments

Course Outcome Attainment

For example:

Attainment through University Examination: Substantial i.e. 3

Attainment through Internal Assessment: Moderate i.e. 2

Assuming 80% weightage to University examination and 20% weightage to Internal assessment, the attainment calculations will be (80% of University level) + (20% of Internal level) i.e. 80% of 3 + 20% of 2 = 2.4 + 0.4 = 2.8

Note: Weightage of 80% to University exams is only an example. Programs may decide weightages appropriately for University exams. and internal assessment with due justification.

3.3. Attainment of Program Outcomes and Program Specific Outcomes (50)**3.3.1. Describe Assessment Tools and Processes Used for Measuring the Attainment of each of the Program Outcomes and Program Specific Outcomes (10)**

(Describe the assessment tools and processes used to gather the data upon which the evaluation of each of the Program Outcomes and Program Specific Outcomes is based indicating the frequency with which these processes are carried out. Describe the assessment processes that demonstrate the degree to which the Program Outcomes and Program Specific Outcomes are attained and document the attainment levels)

3.3.1. Provide Results of Evaluation of each PO & PSO (40)

Program shall set Program Outcome attainment levels for all POs & PSOs.

(The attainment levels by direct (student performance) and indirect (surveys) are to be presented through Program level Course – PO & PSO matrix as indicated).

PO Attainment

Course	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012
C101												
C102												
.....												
.....												
.....												
C409												
Direct Attainment												
Indirect Attainment												

Table B.3.3.2

Note: Similar table is to be prepared for PSOs

C101, C102 are indicative courses in the first year. Similarly, C409 is final year course. First numeric digit indicates year of study and remaining two digits indicate course nos. in the respective year of study.

- ☞ Direct attainment level of a PO & PSO is determined by taking average across all courses addressing that PO and/or PSO. Fractional numbers may be used for example 1.55.
- ☞ Indirect attainment level of PO & PSO is determined based on the student exit surveys, employer surveys, co-curricular activities, extracurricular activities etc.

Example:

1. It is assumed that a particular PO has been mapped to four courses C2O1, C3O2, C3O3 and C4O1
2. The attainment level for each of the four courses will be as per the examples shown in 3.2.2
3. PO attainment level will be based on attainment levels of direct assessment and indirect assessment
4. For affiliated, non-autonomous colleges, it is assumed that while deciding on overall attainment level 80% weightage may be given to direct assessment and 20% weightage to indirect assessment through surveys from students (largely), employers (to some extent).

Program may have different weightages with appropriate justification.

5. Assuming following actual attainment levels:

Direct Assessment

C201 –High (3)

C302 – Medium (2)

C303 – Low (1)

C401 – High (3)

Attainment level will be summation of levels divided by no. of courses $3 + 2 + 1 + 3/4 = 9/4 = 2.25$

Indirect Assessment

Surveys, Analysis, customized to an average value as per levels 1, 2 & 3.

Assumed level - 2

6. PO Attainment level will be 80% of direct assessment + 20% of indirect assessment i.e. $1.8 + 0.4 = 2.2$.

Note: Similarly for PSOs

Criterion 4	Students' Performance	150
-------------	-----------------------	-----

4. STUDENTS' PERFORMANCE (150)

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	CAY	CAYm1	CAYm2
Sanctioned intake of the program (N)			
Total number of students admitted in first year minus number of students migrated to other programs/institutions plus no. of students migrated to this program (N1)			
Number of students admitted in 2nd year in the same batch via lateral entry (N2)			
Separate division students, if applicable (N3)			
Total number of students admitted in the Program (N1 + N2 + N3)			

Table B.4a

CAY – Current Academic Year

CAYm1- Current Academic Year minus 1 = Current Assessment Year

CAYm2 - Current Academic Year minus 2 = Current Assessment Year minus 1

LYG – Last Year Graduate minus 1

LYGm1 – Last Year Graduate minus 1

LYGm2 – Last Year Graduate minus 2

Year of entry	N1 + N2 + N3 (As defined above)	Number of students who have successfully graduated without backlogs in any semester/year of study (Without Backlog means no compartment or failures in any semester/year of study)			
		I Year	II Year	III Year	IV Year
CAY					
CAYm1					
CAYm2					
CAYm3					
CAYm4 (LYG)					
CAYm5 (LYGm1)					
CAYm6 (LYGm2)					

Table B: 4b

Year of entry	N1 + N2 + N3 (As defined above)	Number of students who have successfully graduated (Students with backlog in stipulated period of study)			
		I Year	II Year	III Year	IV Year
CAY					
CAYm1					
CAYm2					
CAYm3					
CAYm4 (LYG)					
CAYm5 (LYGm1)					
CAYm6 (LYGm2)					

Table B: 4c

For Example from data entry perspective:

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	CAY (2016-17)	CAYm1 (2015-16)	CAYm2 (2014-15)
Sanctioned intake of the program (N)	120	120	120
Total number of students admitted in first year minus number of students migrated to other programs/institutions plus no. of students migrated to this program (N1)	100	100	110
Number of students admitted in 2nd year in the same batch via lateral entry (N2)	Nil	24	24
Separate division (N3)	Nil	Nil	Nil
Total number of students admitted in the Program (N1 + N2 + N3)	100	124	134

Year of Entry	N1 + N2 + N3 (As defined above)	Number of Students who have Successfully Graduated without backlogs in any Semester/Year of Study			
		I Year	II Year	III Year	IV Year
CAY (2016-17)	100(100+0+0)				
CAY (2015-16)	124(100+24+0)	60			
CAYm1 (2014-15)	124 (100+24+0)	50	40+20		
CAYm2 (2013-14)	134 (110+24+0)	90	80+20	70+20	
CAYm3 (LYG) (2012-13)	124 (100+24+0)	100	90+20	85+18	85+15
CAYm4 (LYGm1) (2011-12)	130 (120+10+0)	80	70+10	60+10	50+10
CAYm5 (LYGm2) (2010-11)	144 (120+24+0)	70	60+15	54+10	50+10

Year of Entry	N1 + N2 + N3 (As defined above)	Number of Students who have Successfully Graduated (Students with backlog in stipulated period of study)			
		I Year	II Year	III Year	IV Year
CAY (2016-17)	124(100+0+0)				
CAY (2015-16)	124(100+24+0)	40			
CAYm1 (2014-15)	124 (100+24+0)	50	40+4		
CAYm2 (2013-14)	134 (110+24+0)	20	20+4	15+3	
CAYm3 (LYG) (2012-13)	124 (100+24+0)	0	0+4	5+4	5+4
CAYm4 (LYGm1) (2011-12)	130 (120+10+0)	30	30+10	25+4	50+10
CAYm5 (LYGm2) (2010-11)	144 (120+24+0)	30	25+5	25+5	20+5

4.1. Enrolment Ratio (20) Enrolment Ratio = $N1/N$

Enrolment Ratio = $N1/N$

Item (Students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year)	Marks
> = 90% students enrolled	20
> = 80% students enrolled	18
> = 70% students enrolled	16
> = 60% students enrolled	14
> = 50% students enrolled	12
Otherwise	0

Table B: 4.1

4.2. Success Rate in the Stipulated Period of the Program (40)**4.2.1. Success Rate without Backlogs in any Semester/ Year of Study (25)**

SI = (Number of students who have graduated from the program without backlog)/ (Number of students admitted in the first year of that batch and actually admitted in 2nd year via lateral entry and separate division, if applicable)

Average SI = Mean of Success Index (SI) for past three batches

Success rate without backlogs in any year of study = $25 \times$ Average SI

Successful students are those who are permitted to proceed to the Third year.

Item	Last Year of Graduate, LYG (CAYm4)	Last Year of Graduate minus 1, LYGm1 (CAYm5)	Last Year of Graduate minus 2, LYGm2 (CAYm6)
Number of students admitted in the corresponding First Year + admitted in 2nd year via lateral entry and separate division, if applicable			
Number of students who have graduated without backlogs in the stipulated period			
Success Index (SI)			
Average SI			

Table B.4.2.1

4.2.2. Success Rate in Stipulated Period of Study (15)

SI = (Number of students who graduated from the program in the stipulated period of course duration)/ (Number of students admitted in the first year of that batch and actual admitted in 2nd year via lateral entry and separate division, if applicable)

Average SI = mean of Success Index (SI) for past three batches

Success rate = $15 \times$ Average SI

Item	Last Year of Graduate, LYG (CAYm4)	Last Year of Graduate minus 1, LYGm1 (CAYm5)	Last Year of Graduate minus 2, LYGm2 (CAYm6)
Number of students admitted in the corresponding First Year + admitted in 2nd year via lateral entry and separate division, if applicable			

Number of students who have graduated without backlogs in the stipulated period			
Success Index (SI)			
Average SI			

Table B.4.2.2

Note: If 100% students clear without any backlog then also total marks scored will be 40 as both 4.2.1 & 4.2.2 will be applicable simultaneously.

4.3. Academic Performance in Third Year (15)

Academic Performance = Average API (Academic Performance Index), where

API = ((Mean of 2nd Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Second Year/10)) x (number of successful students/number of students appeared in the examination)

Successful students are those who are permitted to proceed to the Third year.

Academic Performance	CAYm1	CAYm2	CAYm3
Mean of CGPA or Mean Percentage of all successful students (X)			
Total No. of successful students (Y)			
Total No. of students appeared in the examination (Z)			
API = X* (Y/Z)	Ap1	Ap2	Ap3
Average API = (AP1 + AP2 + AP3)/3			

Table B: 4.3

4.4. Academic Performance in Second Year (15)

Academic Performance Level = 1.5 * Average API (Academic Performance Index)

API = ((Mean of 2nd Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Second Year/10)) x (number of successful students/number of students appeared in the examination)

Successful students are those who are permitted to proceed to the Third year.

Academic Performance	CAYm1	CAYm2	CAYm3
Mean of CGPA or Mean Percentage of all successful students (X)			
Total No. of successful students (Y)			
Total No. of students appeared in the examination (Z)			
API = $X * (Y/Z)$	Ap1	Ap2	Ap3
Average API = $(AP1 + AP2 + AP3)/3$			

Table B: 4.4

4.5. Placement, Higher Studies and Entrepreneurship (40)

Assessment Points = $40 \times$ average placement

Item	CAYm1	CAYm2	CAYm3
Total No. of Final Year Students (N)			
No. of students placed in companies or Government Sector (x)			
No. of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National Level Tests, GRE, GMAT etc.) (y)			
No. of students turned entrepreneur in engineering/technology (z)			
$x + y + z =$			
Placement Index : $(x + y + z)/N$	P1	P2	P3
Average placement = $(P1 + P2 + P3)/3$			

Table B: 4.5

4.5a. Provide the Placement Data in the below mentioned Format with the Name of the Program and the Assessment Year

Programs Name and Assessment Year				
Sl. No	Name of the Student Placed	Enrollment No.	Name of the Employer	Appointment Letter Reference No. with Date

Table B: 4.5a

4.6. Professional Activities (20)**4.6.1. Professional Societies / Chapters and Organizing Engineering Events (5)**

(The Department shall provide relevant details)

4.6.2. Publication of Technical Magazines, Newsletters, etc. (5)

(The Department shall list the publications mentioned earlier along with the names of the editors, publishers, etc.)

4.6.3. Participation in Inter-institution Events by Students of the Program of Study (10)

(The Department shall provide a table indicating those publications, which received awards in the events/conferences organized by other institutions)

CRITERION 5	Faculty Information and Contributions	200
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5. FACULTY INFORMATION AND CONTRIBUTIONS (200)

Name of the Faculty Member	Qualification		Association with the Institution	Designation	Date on which Designated as Professor/ Associate Professor	Date of Joining the Institution	Department	Specialization	Academic Research			Currently Associated (Y/N) Date of Leaving (In case Currently Associated is "No")	Nature of Association (Regular/Contract)
	Degree (highest degree)	University							Year of attaining higher qualification	Research Paper Publications	Ph.D. Guidance		

Table B: 5

Note: Please provide details for the faculty of the department, cumulative information for all the shifts for all academic years starting from current year in above format in Annexure – II (B.3).

5.1. Student-Faculty Ratio (SFR) (20)

(To be calculated at Department Level)

No. of UG Programs in the Department (n): _____

No. of PG Programs in the Department (m): _____

No. of Students in UG 2nd Year = **u1**

No. of Students in UG 3rd Year = **u2**

No. of Students in UG 4th Year = **u3**

No. of Students in PG 1st Year = **p1**

No. of Students in PG 2nd Year = **p2**

No. of Students = Sanctioned Intake + Actual Admitted Lateral Entry Students

(The above data to be provided considering all the UG and PG programs of the department)

S = Number of Students in the Department = UG1 + UG2 + UG3 + PG1 + PG2

F = Total Number of Faculty Members in the Department (excluding first year faculty)

Student Teacher Ratio (STR) = S / F

Year	CAY	CAYm1	CAYm2
u1.1			
u1.2			
u1.3			
UG1	u1.1+u1.2+u1.3	u1.1+u1.2+u1.3	u1.1+u1.2+u1.3
...			
u _n .1			
u _n .2			
u _n .3			
UGn	u_n.1+u_n.2+u_n.3	u_n.1+u_n.2+u_n.3	u_n.1+u_n.2+u_n.3
p1.1			
p1.2			
PG1	p1.1+p1.2	p1.1+p1.2	p1.1+p1.2
.....			
pm.1			
pm.2			
PGm	pn.1+pn.2	pn.1+pn.2	pn.1+pn.2
Total No. of Students in the Department (S)	UG1 + UG2 + .. + UGn + PG1 + ...PGn	UG1 + UG2 + .. + UGn + PG1 + ...PGn	UG1 + UG2 + .. + UGn + Pg1+... + PGn
No. of Faculty in the Department (F)	F1	F2	F3
Student Faculty Ratio (SFR)	SFR1 = S1/F1	SFR2 = S2/F2	SFR3 = S3/F3
Average SFR	SFR = (SFR1 + SFR2 + SFR3)/3		

Table B.5.1

Marks to be given proportionally from a maximum of 20 to a minimum of 10 for average SFR between 15:1 to 25:1, and zero for average SFR higher than 25:1. Marks distribution is given as below:

< = 15	-	20 Marks
< = 17	-	18 Marks
< = 19	-	16 Marks
< = 21	-	14 Marks
< = 23	-	12 Marks
< = 25	-	10 Marks
> 25.0	-	0 Marks

Note: All the faculty whether regular or contractual (except Part-Time), will be considered. The contractual faculty (doing away with the terminology of visiting/adjunct faculty, whatsoever) who have taught for 2 consecutive semesters in the corresponding academic year on full time basis shall be considered for the purpose of calculation in the Faculty Student Ratio.

However, following will be ensured in case of contractual faculty:

1. Shall have the AICTE prescribed qualifications and experience.
2. Shall be appointed on full time basis and worked for consecutive two semesters during the particular academic year under consideration.
3. Should have gone through an appropriate process of selection and the records of the same shall be made available to the visiting team during NBA visit.

5.1.1. Provide the information about the regular and contractual faculty as per the format mentioned below:

	Total number of regular faculty in the department	Total number of contractual faculty in the department
CAY		
CAYm1		
CAYm2		

Table 5.1.1

5.2. Faculty Cadre Proportion (20)

The reference Faculty cadre proportion is 1(F1):2(F2):6(F3)

F1: Number of Professors required = $1/9 \times$ Number of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (N) as per 5.1

F2: Number of Associate Professors required = $2/9 \times$ Number of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (N) as per 5.1

F3: Number of Assistant Professors required = $6/9 \times$ Number of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (N) as per 5.1

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY						
CAYm1						
CAYm2						
Average Numbers	RF1 =	AF1 =	RF2 =	AF2 =	RF3 =	AF3 =

Table B: 5.2

$$\text{Cadre Ratio Marks} = \left[\left[\frac{AF1}{RF1} \right] + \left[\frac{AF2 \times 0.6}{RF2} \right] + \left[\frac{AF3 \times 0.4}{RF3} \right] \right] \times 12.5$$

- If AF1 = AF2 = 0 then zero marks
- Maximum marks to be limited if it exceeds 25

Example: Intake = 60 (i.e. total no. of students = 180); Required number of Faculty: 9; RF1 = 1, RF2 = 2 and RF3 = 6

Case 1: AF1/RF1 = 1; AF2/RF2 = 1; AF3/RF3 = 1; Cadre proportion marks = $(1 + 0.6 + 0.4) \times 12.5 = 25$

Case 2: AF1/RF1 = 1; AF2/RF2 = 3/2; AF3/RF3 = 5/6; Cadre proportion marks = $(1 + 0.9 + 0.3) \times 12.5 =$ limited to 25

Case 3: AF1/RF1 = 0; AF2/RF2 = 1/2; AF3/RF3 = 8/6; Cadre proportion marks = $(0 + 0.3 + 0.53) \times 12.5 = 10.4$

5.3. Faculty Qualification (25)

$FQ = 2.5 \times [(10X + 4Y)/F]$ where x is no. of regular faculty with Ph.D., Y is no. of regular faculty with M. Tech., F is no. of regular faculty required to comply 20:1 Faculty Student ratio (no. of faculty and no. of students required are to be calculated as per 5.1)

Years	X	Y	F	$FQ = 2.5 \times [(10X + 4Y)/F]$
CAY				
CAYm1				
CAYm2				
Average Assessment				

5.4. Faculty Retention (25)

No. of regular faculty members in CAYm1 =

CAY =

Item	Marks
(% of faculty retained during the period of assessment keeping CAYm2 as base year)	
> = 90% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	25
> = 75% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	20
> = 60% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	15
> = 50% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	10
< 50% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	0

Table B: 5.4

5.5. Innovations by the Faculty in Teaching and Learning (20)

Innovations by the Faculty in teaching and learning shall be summarized as per the following description.

Contributions to teaching and learning are activities that contribute to the improvement of student learning. These activities may include innovations not limited to, use of ICT, instruction delivery, instructional

methods, assessment, evaluation and inclusive class rooms that lead to effective, efficient and engaging instruction. Any contributions to teaching and learning should satisfy the following criteria:

- ☞ The work must be made available on Institute website
- ☞ The work must be available for peer review and critique
- ☞ The work must be reproducible and developed further by other scholars

The department/institution may set up appropriate processes for making the contributions available to the public, getting them reviewed and for rewarding. These may typically include statement of clear goals, adequate preparation, use of appropriate methods, significance of results, effective presentation and reflective critique

5.6. Faculty as Participants in Faculty Development / Training Activities/STTPs (15)

- ☞ A faculty scores maximum five points for participation
- ☞ Participation in 2 to 5 days Faculty/ Faculty development program: 3 Points
- ☞ Participation > 5 days Faculty/ Faculty development program: 5 points

Name of the Faculty	Max. 5 per Faculty		
	CAYm1	CAYm2	CAYm3
Sum			
RF= Number of Faculty required to comply with 20:1 Student-Faculty ratio as per 5.1			
Assessment = 3 × (Sum/0.5 RF) (Marks limited to 15)			
Average assessment over last three years (Marks limited to 15) =			

Table B: 5.6

5.7. Research and Development (30)

5.7.1. Academic Research (10)

Academic research includes research paper publications, Ph.D. guidance, and faculty receiving Ph.D. during the assessment period.

- ☞ Number of quality publications in refereed/SCI Journals, citations, Books/Book Chapters etc. (15)
- ☞ Ph.D. guided /Ph.D. awarded during the assessment period while working in the institute (5)

All relevant details shall be mentioned.

5.7.2. Sponsored Research (5)**Funded research:**

(Provide a list with Project Title, Funding Agency, Amount and Duration)

Funding amount (Cumulative during CAYm1, CAYm2 and CAYm3):

Amount > 20 Lakh – 5 Marks

Amount > = 16 Lakh and < = 20 Lakh – 4 Marks

Amount > = 12 Lakh and < 16 Lakh – 3 Marks

Amount > = 8Lakh and < 12 Lakh – 2 Marks

Amount > = 4Lakhand < 8 Lakh – 1 Mark

Amount < 4Lakh – 0 Mark

5.7.3. Development Activities (10)**Provide details:**

- ☞ Product Development
- ☞ Research laboratories
- ☞ Instructional materials
- ☞ Working models/charts/monograms etc.

5.7.4. Consultancy (from Industry) (5)

(Provide a list with Project Title, Funding Agency, Amount and Duration)

Funding amount (Cumulative during CAYm1, CAYm2 and CAYm3):

Amount > 10Lakh – 5 Marks

Amount > = 8 Lakh and < = 10 Lakh – 4 Marks

Amount > = 6 Lakh and < 8Lakh – 3 Marks

Amount > = 4 Lakh and < 6Lakh – 2 Marks

Amount > = 2 Lakh and < 4Lakh – 1 Mark

Amount < 2Lakh – 0 Mark

5.8. Faculty Performance Appraisal and Development System (FPADS) (30)

Faculty members of Higher Educational Institutions today have to perform a variety of tasks pertaining to diverse roles. In addition to instruction, faculty members need to innovate and conduct research for their self-renewal, keep abreast with changes in technology, and develop expertise for effective implementation of

curricula. They are also expected to provide services to the industry and community for understanding and contributing to the solution of real life problems in industry. Another role relates to the shouldering of administrative responsibilities and co-operation with other Faculty, Heads-of-Departments and the Head of Institution. An effective performance appraisal system for faculty is vital for optimizing the contribution of individual Faculty to institutional performance.

The assessment is based on:

- ☞ A well-defined system for faculty appraisal for all the assessment years (10)
- ☞ Its implementation and effectiveness (20)

5.9. Visiting/Adjunct/Emeritus Faculty etc. (10)

Adjunct faculty also includes Industry experts. Provide details of participation and contributions in teaching and learning and /or research by visiting/adjunct/Emeritus faculty, etc. for all the assessment years:

- ☞ Provision of inviting/having visiting/adjunct/emergitus faculty (1)
- ☞ Minimum 50 hours per year interaction with adjunct faculty from industry/retired professors etc. (9)

(Minimum 50 hours interaction in a year will result in 3 marks for that year; 3 marks x 3 years = 9 marks)

CRITERION 6	Facilities and Technical Support	80
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6. FACILITIES AND TECHNICAL SUPPORT (80)

6.1. Adequate and Well-equipped Laboratories, and Technical Manpower (30)

Sl. No.	Name of the Laboratory	No. of students per setup (Batch Size)	Name of the Important equipment	Weekly utilization status (all the courses for which the lab is utilized)	Technical Manpower support		
					Name of the technical staff	Designation	Qualification
1.							
N.							

Table B: 6.1

6.2 Additional Facilities Created for Improving the Quality of Learning Experience in Laboratories (25)

Sl. No.	Name of Facility	Details	Reason(s) for Creating Facility	Utilization	Areas in which Students' are Expected to have Enhanced Learning	Relevance to POs/PSOs
1.						
N.						

6.3. Laboratories Maintenance and Overall Ambiance (10)

(Self-Explanatory)

6.4. Project Laboratory (20)

(Mention facilities & Utilization)

6.5. Safety Measures in Laboratories (10)

Sl. No.	Name of the Laboratory	Safety measures
1.		
N.		

Table B: 6.5

CRITERION 7	Continuous Improvement	50
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7. CONTINUOUS IMPROVEMENT (50)

7.1. Actions taken based on the results of evaluation of each of the POs & PSOs (20)

Identify the areas of weaknesses in the program based on the analysis of evaluation of POs & PSOs attainment levels. Measures identified and implemented to improve POs & PSOs attainment levels for the assessment years.

Actions to be written as per table in 3.3.2.

Examples of analysis and proposed action

Sample 1-Course outcomes for a laboratory course did not measure up, as some of the lab equipment did not have the capability to do the needful (e.g., single trace oscilloscopes available where dual trace would have been better, or, non-availability of some important support software etc.). Action taken-Equipment up-gradation was carried out (with details of up-gradation)

Sample 2-In a course on EM theory student performance has been consistently low with respect to some COs. Analysis of answer scripts and discussions with the students revealed that this could be attributed to a weaker course on vector calculus.

Action taken-revision of the course syllabus was carried out (instructions /text book have been changed, when deemed appropriate).

Sample 3-In a course that had group projects it was determined that the expectations from this course about PO3 (like: “to meet the specifications with consideration for the public health and safety, and the cultural, societal, and environmental considerations”) were not realized as there were no discussions about these aspects while planning and execution of the project.

Action taken- Project planning, monitoring and evaluation included in rubrics related to these aspects.

POs	Target Level	Attainment Level	Observations
P01: Statement as mentioned in Appendix I			
P01			
Action 1:			
Action N:			
P02: Statement as mentioned in Appendix I			
P02			
Action 1:			
Action N:			

P03: Statement as mentioned in Appendix I			
P03			
Action 1:			
Action N:			
P04: Statement as mentioned in Appendix I			
P04			
Action 1:			
Action N:			
P05: Statement as mentioned in Appendix I			
P05			
Action 1:			
Action N:			
P06: Statement as mentioned in Appendix I			
P06			
Action 1:			
Action N:			
P07: Statement as mentioned in Appendix I			
P07			
Action 1:			
Action N:			
P08: Statement as mentioned in Appendix I			
P08			
Action 1:			
Action N:			
P09: Statement as mentioned in Appendix I			
P09			
Action 1:			
Action N:			
P10: Statement as mentioned in Appendix I			
P10			
Action 1:			
Action N:			
P11: Statement as mentioned in Appendix I			
P11			
Action 1:			
Action N:			

P012: Statement as mentioned in Appendix I			
P012			
Action 1:			
Action N:			
Similar information is to be provided for PSOs			

Similar Tables should be presented for CAYm1 and CAYm2

7.2. Academic Audit and Action Taken thereof during the Period of Assessment (10)

(Academic Audit system/process and its implementation in relation to Continuous Improvement)

7.3. Improvement in Placement, Higher Studies and Entrepreneurship (10)

Assessment is based on improvement in:

- ☞ **Placement:** number, quality placement, core industry, pay packages, etc.
- ☞ **Higher studies:** performance in GATE, GRE, GMAT, CAT, etc., and admissions in premier institutions
- ☞ **Entrepreneurs**

7.4. Improvement in the quality of students admitted to the program (10)

Assessment is based on improvement in terms of ranks/score in qualifying state level/national level entrances tests, percentage marks in Physics, Chemistry and Mathematics in 12th Standard and percentage marks of the lateral entry students.

Item		CAY	CAYm1	CAYm2
National Level Entrance Examination (Name of the Entrance Examination)	No. of Students admitted			
	Opening Score/Rank			
	Closing Score/Rank			
State/University/Level Entrance Examination/Others (Name of the Entrance Examination)	No. of Students admitted			
	Opening Score/Rank			
	Closing Score/Rank			
Name of the Entrance Examination for Lateral Entry or lateral entry details	No. of Students admitted			
	Opening Score/Rank			
	Closing Score/Rank			
Average CBSE/Any other Board Result of Admitted Students (Physics, Chemistry & Maths)				

Table B: 7.4

CRITERION 8	First Year Academics	50
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8. FIRST YEAR ACADEMICS (50)

8.1. First Year Student-Faculty Ratio (FYSFR) (5)

Data for first year courses to calculate the FYSFR:

Year	Number of students (approved intake strength)	Number of faculty members (considering fractional load)	FYSFR	*Assessment = $(5 \times 20)/$ FYSFR (Limited to Max. 5)
CAY				
CAYm1				
CAYm2				
Average				

Table B: 8.1

*Note: If FYSFR is greater than 25, then assessment equal to zero.

8.2. Qualification of Faculty Teaching First Year Common Courses (5)

Assessment of qualification = $(5x + 3y)/RF$, x = Number of Regular Faculty with Ph.D., y = Number of Regular Faculty with Post-graduate qualification RF = Number of faculty members required as per SFR of 20:1, Faculty definition as defined in 5.1

Year	X	Y	RF	Assessment of faculty qualification $(5x + 3y)/RF$
CAY				
CAYm1				
CAYm2				
Average Assessment				

Table B: 8.2

8.3. First Year Academic Performance (10)

Academic Performance = ((Mean of 1st Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks in First Year of all successful students/10)) x (number of successful students/number of students appeared in the examination)

Successful students are those who are permitted to proceed to the second year.

8.4. Attainment of Course Outcomes of First Year Courses (10)**8.4.1. Describe the Assessment Processes Used to Gather the Data upon which the Evaluation of Course Outcomes of First Year is Done (5)**

(Examples of data collection processes may include, but are not limited to, specific exam questions, laboratory tests, internally developed assessment exams, oral exams assignments, presentations, tutorial sheets, etc.)

8.4.2. Record the attainment of Course Outcomes of all First Year Courses (5)

Program shall have set attainment levels for all first year courses.

(The attainment levels shall be set considering average performance levels in the university examination or any higher value set as target for the assessment years. Attainment level is to be measured in terms of student performance in internal assessments with respect to the COs of a subject plus the performance in the University examination)

Refer to 3.2.2 for further details.

8.5. Attainment of Program Outcomes from First Year Courses (20)**8.5.1. Indicate Results of Evaluation of each Relevant PO and/or PSO, if applicable (15)**

The relevant program outcomes that are to be addressed at first year need to be identified by the institution.

Program Outcome attainment levels shall be set for all relevant POs and/or PSOs through first year courses.

(Describe the assessment processes that demonstrate the degree to which the Program Outcomes are attained through first year courses and document the attainment levels. Also include information on assessment processes used to gather the data upon which the evaluation of each Program Outcome is based indicating the frequency with which these processes are carried out)

PO/PSO Attainment: Mention first year courses

Course	Course Title	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012
C101													
C102													
.....													
Direct Attainment*													

Table B: 8.5.1

* Direct attainment level of a PO is determined by taking average across all courses addressing that PO. Fractional numbers may be used for example 1.55.

Note: Add PSOs; if applicable

8.5.2. Actions Taken based on the Results of Evaluation of Relevant POs (5)

(The attainment levels by direct (student performance) are to be presented through Program level Course-PO matrix as indicated)

PO Attainment Levels and Actions for Improvement - CAY – Mention for Relevant POs

Pos	Target Level	Attainment Level	Observations
P01: Statement as mentioned in Appendix I			
P01			
Action 1:			
Action N:			
Po2: Statement as mentioned in Appendix I			
P02			
Action 1:			
Action N:			
P03: Statement as mentioned in Appendix I			
P03			
Action 1:			
Action N:			
P04: Statement as mentioned in Appendix I			
P04			
Action 1:			
Action N:			
P05: Statement as mentioned in Appendix I			
P05			
Action 1:			
Action N:			
P06: Statement as mentioned in Appendix I			
P06			
Action 1:			
Action N:			

P07: Statement as mentioned in Appendix I			
P07			
Action 1:			
Action N:			
P08: Statement as mentioned in Appendix I			
P08			
Action 1:			
Action N:			
P09: Statement as mentioned in Appendix I			
P09			
Action 1:			
Action N:			
P010: Statement as mentioned in Appendix I			
P010			
Action 1:			
Action N:			
P011: Statement as mentioned in Appendix I			
P011			
Action 1:			
Action N:			
P012: Statement as mentioned in Appendix I			
P012			
Action 1:			
Action N:			

Table B: 8.5.2

Note: PSOs, if applicable to be added appropriately.
Similar Tables should be presented for CAYm1 and CAYm2

CRITERION 9	Student Support Systems	50
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9.1 Mentoring System to Help at Individual Level (5)

Type of mentoring: Professional guidance/career advancement/course work specific/laboratory specific/all-round development. Number of faculty mentors: Number of students per mentor: Frequency of meeting:

(The institution may report the details of the mentoring system that has been developed for the students for various purposes and also state the efficacy of such system)

9.2. Feedback Analysis and Reward /Corrective Measures Taken, if any (10)

Feedback collected for all courses: YES/NO; Apecify the feedback collection process; Average percentage of students who participate; Specify the feedback analysis process; Basis of reward/ corrective measures, if any; Indices used for measuring quality of teaching & learning and summary of the index values for all courses/teachers; Number of corrective actions taken.

9.3. Feedback on Facilities (5)

Assessment is based on student feedback collection, analysis and corrective action taken.

9.4. Self-Learning (5)

(The institution needs to specify the facilities, materials and scope for self-learning / learning beyond syllabus, Webinars, Podcast, MOOCs, etc. and evaluate their effectiveness)

9.5. Career Guidance, Training, Placement (10)

(The institution may specify the facility, its management and its effectiveness for career guidance including counseling for higher studies, campus placement support, industry interaction for training/internship/placement, etc.)

9.6. Entrepreneurship Cell (5)

(The institution may describe the facility, its management and its effectiveness in encouraging entrepreneurship and incubation) (Success stories for each of the assessment years are to be mentioned)

9.7. Co-curricular and Extra-curricular Activities (10)

(The institution may specify the co-curricular and extra-curricular activities) (Quantify activities such as NCC, NSS, etc.)

CRITERION 10	Governance, Institutional Support and Financial Resources	120
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10. GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES (120)

10.1. Organization, Governance and Transparency (40)

10.1.1. State the Vision and Mission of the Institute (5)

(Vision statement typically indicates aspirations and Mission statement states the broad approach to achieve aspirations)

10.1.2. Governing Body, Administrative Setup, Functions of Various Bodies, Service Rules, Procedures, Recruitment and Promotional Policies (10)

List the governing, senate, and all other academic and administrative bodies; their memberships, functions, and responsibilities; frequency of the meetings; and attendance therein, in a tabular form. A few sample minutes of the meetings and action-taken reports should be annexed.

The published rules including service rules, policies and procedures; year of publication shall be listed. Also state the extent of awareness among the employees/students.

10.1.3. Decentralization in Working and Grievance Redressal Mechanism (10)

List the names of the faculty members who have been delegated powers for taking administrative decisions. Mention details in respect of decentralization in working. Specify the mechanism and composition of grievance redressal cell including Anti Ragging Committee & Sexual Harassment Committee.

10.1.4. Delegation of Financial Powers (10)

Institution should explicitly mention financial powers delegated to the Principal, Heads of Departments and relevant in-charges of workshops and laboratories. Demonstrate the utilization of financial powers for each year of the assessment years.

10.1.5. Transparency and Availability of Correct/Unambiguous Information in Public Domain (5)

(Information on policies, rules, processes and dissemination of this information to stakeholders is to be made available on the web site)

10.2. Budget Allocation, Utilization, and Public Accounting at Institution Level (30)

Summary of current financial year's budget and actual expenditure incurred (for the institution exclusively) in the three previous financial years.

Total Income at Institute level: For CFY, CFYm1, CFYm2& CFYm3

CFY: Current Financial Year, CFYm1 (Current Financial Year minus 1), CFYm2 (Current Financial Year minus 2) and CFYm3 (Current Financial Year minus 3)

For CFY

Total Income in CFY				Actual expenditure in CFY (till ...)			Total No. of students in CFY
Fee	Govt.	Grant(s)	Other Sources (specify)	Recurring including Salaries	Non-recurring	Special Projects/Any other, specify	Expenditure per student

Table B:10.2a

Note: Similar tables are to be prepared for CFYm1, CFYm2 & CFYm3.

Iteams	Budgeted in CFY	Actual expenses in CFY (till ...)	Budgeted in CFYm1	Actual Expenses in CFYm1	Budgeted in CFYm2	Actual Expenses in CFYm2	Budgeted in CFYm3	Actual Expenses in CFYm3
Infrastructure Built-Up								
Library								
Laboratory equipment								
Laboratory consumables								
Teaching and non-teaching staff salary								
Maintenance and spares								
R&D								
Training and Travel								
Miscellaneous expenses *								
Others, specify								
Total								

Table B:10.2b

*** Items to be mentioned****10.2.1. Adequacy of Budget Allocation (10)**

(The institution needs to justify that the budget allocated during assessment years was adequate)

10.2.2. Utilization of Allocated Funds (15)

(The institution needs to state how the budget was utilized during assessment years)

10.2.3. Availability of the Audited Statements on the Institution's Website (5)

(The institution needs to make audited statements available on its website)

10.3. Program Specific Budget Allocation, Utilization (30)

Total Budget at program level: For CFY, CFYm1, CFYm2 & CFYm3

CFY: Current Financial Year, CFYm1 (Current Financial Year minus 1), CFYm2 (Current Financial Year minus 2) and CFYm3 (Current Financial Year minus 3).

For CFY

Total Budget		Actual expenditure (till ...)		Total No. of Students
Non recurring	Recurring	Non recurring	Recurring	Expenditure per student

Table B: 10.3a

Note: Similar tables are to be prepared for CFYm1, CFYm2 & CFYm3.

Items	Budgeted in CFY	Actual expenses in CFY(till)	Budgeted in CFYm1	Actual Expenses in CFYm1	Budgeted in CFYm2	Actual Expenses in CFYm2	Budgeted in CFYm3	Actual Expenses in CFYm3
Laboratory equipment								
Software								
Laboratory consumable								
Maintenance and spares								
R & D								
Training and Travel								

Miscellaneous expenses *								
Total								

Table B:10.3b

* Items to be mentioned

10.3.1. Adequacy of Budget Allocation (10)

(Program needs to justify that the budget allocated over the assessment years was adequate for the program)

10.3.2. Utilization of Allocated Funds (20)

(Program needs to state how the budget was utilized during the last three assessment years)

10.4. Library and Internet (20)

(Indicate whether zero deficiency report was received by the Institution for all the assessment years. Effective availability/purchase records and utilization of facilities/equipment etc. to be documented and demonstrated)

10.4.1. Quality of Learning Resources (hard/soft) (10)

- ☞ Relevance of available learning resources including e-resources
- ☞ Accessibility to students
- ☞ Support to students for self-learning activities

10.4.2. Internet (10)

- ☞ Name of the Internet provider
- ☞ Available bandwidth
- ☞ Wi Fi availability
- ☞ Internet access in labs, classrooms, library and offices of all Departments
- ☞ Security arrangements

DECLARATION

(The Head of the Institution needs to make a declaration as per the format given)

I undertake that, the institution is well aware about the provisions in the NBA's accreditation manual concerned for this application, rules, regulations, notifications and NBA expert visit guidelines in force as on date and the institution shall fully abide by them.

It is submitted that information provided in this Self Assessment Report is factually correct. I understand and agree that an appropriate disciplinary action against the Institution will be initiated by the NBA, in case any false statement/information is observed during pre-visit, visit, post visit and subsequent to grant of accreditation.

Date:

Signature & Name

Place:

Head of the Institution with seal

APPENDIX I OF SAR

1. **Engineering Knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem Analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/Development Of Solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct Investigations of Complex Problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern Tool Usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The Engineer and Society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and Sustain ability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and Team Work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multi disciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. **Project Management and Finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multi disciplinary environments.
- 12 **Life-long Learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

(B) PROGRAM SPECIFIC OUTCOMES (PSOs)

Program should specify 2-4 Program Specific Outcomes.

Annexure IV

PRE-VISIT PREPARATIONS

(To be filled in by the Chairperson)

Name of Institution: _____

Visit Dates: _____

Programs under Consideration:

1. _____ 2. _____

3. _____ 4. _____

5. _____

Brief about Institutional Criteria (Criteria 8, 9 & 10)

(Assessment for Criteria 8 (8.3, 8.4 & 8.5) and 10 (10.3) is different for individual program)

Observations on the Evaluators Pre-Visit Assessments*

*Note: Observations on various programs, if any (including major strengths, weaknesses and deficiencies)

Advisory to the Chairperson

Chairperson is requested to impress upon the Head of the institution to put on the website the Vision, Mission, Programme Educational Objectives as well the information on the institution website relevant to the stakeholders.

Annexure V

PRE-VISIT EVALUATION REPORT

UG Engineering – Tier - II

Name of the Institution:

Name of the Program :

Visit Dates:

Name of Evaluator:

Criterion 1. Vision, Mission and Program Educational Objectives

Sl. No.	Criteria	Availability (Please tick)	Appropriateness/ Observations	Adequacy of Documentary Evidences Provided with SAR (Conclusive /Non Conclusive)	Documentary Evidences to be Verified	Points of Interaction with the Stakeholders (if any)
1.	Vision and Mission Statements					
2.	Consistency between institution and department Vision and Mission statements					
3.	Correlation parameters of PEO-Mission matrix are consistent and justified					

Summary of Observations

- a. Any major shortcomings, observed in data provided in SAR?
- b. Significant weakness(es) observed in SAR which need to be examined during the visit:
- c. Significant strengths which need re-confirmation during the visit:
- d. Specific checking of the points to be done during the visit:
- e. Is the data provided here-in consistent with the information on the website of the institution (if available on website)?

Criterion 2. Program Curriculum and Teaching-Learning Processes

Sl. No.	Criteria	Availability (Please tick)	Appropriateness/ Observations	Adequacy of Documentary Evidences Provided with SAR (Conclusive /Non Conclusive)	Documentary Evidences to be Verified	Points of Interaction with the Stakeholders (if any)
1.	Attainment of POs and PSOs					
2.	Is identified Content beyond Syllabus appropriate and adequate?					
3.	Process is in place to ensure quality of internal semester question papers, assignments and their evaluation as per outcomes/learning levels perspective					
4.	Adequate process in place to Identify projects, allocation methodology, their monitoring and evaluation.					
5.	Projects are relevant and contribute towards attainment of Pos					
6.	Initiatives, implementation details and Impact analysis of industry institution interaction and actions taken thereof					
7.	Initiatives, implementation details and Impact analysis on industrial training					

Summary of Observations:

- a. Any major shortcomings, observed in data provided in SAR?
- b. Significant weakness(es) observed in SAR which need to be examined during the visit:
- c. Significant strengths which need re-confirmation during the visit:
- d. Specific checking of the points to be done during the visit:
- e. Is the data provided here-in consistent with the information on the website of the institution (if available on website)?

Criterion 3. Course Outcomes and Program Outcomes

Sl. No.	Criteria	Availability (Please tick)	Appropriateness/ Observations	Adequacy of Documentary Evidences Provided with SAR (Conclusive /Non Conclusive)	Documentary Evidences to be Verified	Points of Interaction with the Stakeholders (if any)
1.	Mapping of course outcomes with program					
2.	Assessment processes for evaluation of course outcomes					
3.	Demonstration of attainment of POs & PSOs					

Summary of Observations:

- Any major shortcomings, observed in data provided in SAR?
- Significant weakness(es) observed in SAR which need to be examined during the visit:
- Significant strengths which need re-confirmation during the visit:
- Specific checking of the points to be done during the visit:
- Is the data provided here-in consistent with the information on the website of the institution (if available on website)?

Criterion 4. Students' Performance

Sl. No.	Criteria	Availability (Please tick)	Appropriateness/ Observations	Adequacy of Documentary Evidences Provided with SAR (Conclusive /Non Conclusive)	Documentary Evidences to be Verified	Points of Interaction with the Stakeholders (if any)
1.	Whether the percentage of students enrolled during the period of assessment on average basis is > 50%					
2.	Professional activities stated in achieving PO and PSOs					

Summary of Observations:

- Any major shortcomings, observed in data provided in SAR?
- Significant weakness(es) observed in SAR which need to be examined during the visit:
- Significant strengths which need re-confirmation during the visit:
- Specific checking of the points to be done during the visit:
- Is the data provided here-in consistent with the information on the website of the institution (if available on website)?

Criterion 5. Faculty Information and Contributions

Sl. No.	Criteria	Availability (Please tick)	Appropriateness/ Observations	Adequacy of Documentary Evidences Provided with SAR (Conclusive /Non Conclusive)	Documentary Evidences to be Verified	Points of Interaction with the Stakeholders (if any)
1.	Student faculty ratio is better than or equal to 1:25					
2.	Innovative methods adopted by faculty in teaching and learning					
3.	a. Academic Research b. Sponsored Research c. Development Activities d. Consultancy from Industry					
4.	Well defined performance appraisal and development system is implemented for faculty					
5.	Provision of visiting/adjunct/emeritus faculty. Their participation and contribution details					

Summary of Observations:

- a. Any major shortcomings, observed in data provided in SAR?
- b. Significant weakness(es) observed in SAR which need to be examined during the visit:
- c. Significant strengths which need re-confirmation during the visit:
- d. Specific checking of the points to be done during the visit:
- e. Is the data provided here-in consistent with the information on the website of the institution (if available on website)?

Criterion 6. Facilities and Technical Support

Sl. No.	Criteria	Availability (Please tick)	Appropriateness/ Observations	Adequacy of Documentary Evidences Provided with SAR (Conclusive /Non Conclusive)	Documentary Evidences to be Verified	Points of Interaction with the Stakeholders (if any)
1.	a. Adequate & well equipped laboratories b. Qualified technical support staff to run all program specific curriculum					
2.	a. Relevant additional facilities created b. Utilized effectively for improving the quality of learning experience in laboratories					
3.	Availability of facilities and their effective utilization in project labs					
4.	Maintenance and Safety measures in laboratories					

Summary of Observations:

- a. Any major shortcomings, observed in data provided in SAR?
- b. Significant weakness(es) observed in SAR which need to be examined during the visit:
- c. Significant strengths which need re-confirmation during the visit:
- d. Specific checking of the points to be done during the visit:
- e. Is the data provided here-in consistent with the information on the website of the institution (if available on website)?

Criterion 7. Continuous Improvement

Sl. No.	Criteria	Availability (Please tick)	Appropriateness/ Observations	Adequacy of Documentary Evidences Provided with SAR (Conclusive /Non Conclusive)	Documentary Evidences to be Verified	Points of Interaction with the Stakeholders (if any)
1.	a. Areas of weaknesses are identified b. Measures to improve POs & PSOs attainment levels are implemented					
2.	a. Academic Audit Process b. Implementation					
3.	Improvement in: a. Quality of student admitted in the program b. Placement ,Higher Studies and Entrepreneurship					

Summary of Observations:

- a. Any major shortcomings, observed in data provided in SAR?
- b. Significant weakness(es) observed in SAR which need to be examined during the visit:
- c. Significant strengths which need re-confirmation during the visit:
- d. Specific checking of the points to be done during the visit:
- e. Is the data provided here-in consistent with the information on the website of the institution (if available on website)?

Annexure VI

Visit Schedule for NBA- Tier II Institutions
Team Constitution: Chairperson + 2 Program Evaluators

Day 0

Time	Program Evaluators (PEs)	Team Chairperson (TC)
Evening	Arrival at Hotel	
18:30 - 20:00	Team meeting: Chaired by TC at Hotel <ul style="list-style-type: none"> • Review of pre-visit reports of all programs • Identify and discuss issues common to all Programs 	Introductions: PE and TC at Hotel <ul style="list-style-type: none"> • Collate pre-visit evaluation reports of all of all Programs • Finalize the scope/ purpose of meetings scheduled • Briefing to PEs on evaluation process during visit followed by Q&A session
20:00 - 21:30	Team Dinner	

Day 1: Morning Session 9:00am to 1:00pm

Arrival 8:45am at the College

Time	Participants	Theme	Observations
PART - I			
9:00am - 9:20am	Entire Team	Introductions	At the College
9:20am- 10:00am	Entire Team and Management /Institution representatives	Principal's Presentation about the Institution	Certainly not more than 45 minutes
10:20am – 12:30pm	Chairperson	Visit Central facilities, 1st Year Labs, meet 1st Year faculty	*1 See notes
PART - II			
10:15am – 11:00am	Experts in respective departments	Presentation by HoD	*2
11:00am – 12:00pm	Experts in respective departments	Meeting with Program faculty	*3
12:00pm – 12:30pm	Experts in respective departments	Individual meetings with a few (3-4) faculty as decided by the experts	*4
12:30pm – 1:00pm	Entire team meets alone	To share thoughts	
1:00pm –	Working Lunch at the College		

Day 1: Morning Session 9:00am to 1:00pm

Time	Participants	Work Theme	Observation
2:15pm - 4:30pm	Chairperson	Discussion and Study of Admin-Different committees and their working	*5
2:15pm - 4:30pm	Experts	Laboratories to see equipment adequacy, Conduct of lab sessions*2	Friday is normally a working day. So, labs would be functioning
4:30pm - 5:30pm Day 1 the college ends	A meeting at the College to review the day's work		

Day 2: Morning Session 9:30am – 1:00pm

Time	Participants	Work Theme	Observations
PART - I			
9:30am – 10:00am To be adjusted as per the time table	All Team	Lectures. Every member on his own	Either one or two halves. Allows one to see conduct of teaching.
10:00am –12:00pm	Chairperson	Study Budget, Accounts, etc.	
PART - II			
10:00am – 1:00pm	Experts	Study all evidences for attainment of POs	*6
12:00pm – 1:00pm	Chairperson	Visit to placement office	
1:00pm – 2:00pm	Working Lunch at the College		

Day 2: Afternoon Session 2:00pm – 4:15pm

Time	Participants	Work Theme	Observations
2:00pm – 3:00pm	Experts	Visit and study of projects, towards attainment of POs	*7
2:30pm – 3:00pm	Chairperson	Alumni, Parents, Employers	
3:30pm – 4:00pm	All Team	Faculty meeting	*8
4:00pm – 4:30pm	All Team	Students	*8
4:30pm onwards	All Team	Report writing	
4:30pm Depart for place of stay			

Day 3

11:00am – 11:45am	Exit Meeting: Chairperson presents exit comments
12:00pm	Visit concludes

Notes:

- *1. Visit to central facilities and first year facilities is for collecting observations on criterion 1- Institution's vision, mission, PEOs so that consistency amongst these could be checked; and (more importantly) for criterion 8. First year academics- all details needed as per Evaluation Guidelines to be collected jointly.
- *2. HoD's presentation would be on the lines of the suggested template and will provide details needed subsequently.
- *3. Meeting with program faculty. This is an academic meeting. It is for criteria: Criterion 2: Program Curriculum and Teaching–Learning Processes (120), Criterion 3: Program Outcomes and course Outcomes (120) (roughly a quarter of the weight). This discussion could also be around: (a) Curriculum gap analysis, (b) Projects and assignments, (c) Additions to the program to fill in the gaps, etc.
The discussion may allow you to identify evidence that you wish to see (like in-sem question papers, answer scripts, tutorial sheets, assignments, etc) and examine on the next day (apart from the evidence that you might have asked for prior to the visit). The faculty list is to be obtained, verified and later given to the Chairperson.
- *4. These are meetings with individual faculty that allows them to share their views which they may not wish to express in public e.g. some aspects of academic processes that they feel could be better.
- *5. Criterion 10: Governance, Institutional Support and Financial Resources (120)
Allows you to understand how different governance bodies work and evaluate these. Institution's Vision and Mission statements, budgets, spending, funds availability, administrative offices are studied for rules and regulations, working of different statutory bodies like: Anti Ragging Committee, Sexual Harassment Committee, Internet, Library. It is suggested that the Chairperson + one Evaluator could do a quick visit to all departments under consideration to get an overall picture of the institution.
- *6. Assessment of all the evidences that you have asked for should be with you for assessment, particularly with respect to criterion 2 and 3. This is perhaps the most comprehensive task of the visit.
- *7. A good one and a half hour is provided (may be extended a bit, if needed) as much of the assessment of attainment levels of some of the POs is expected to be done here. Particularly, POs {6 to 10}.
- *8. For the meeting with the students, it may be a good idea to have a preliminary list of questions to be raised.

Annexure VII

List of Documents / Records to be verified during the Visit (Records of last three years to be made available, wherever applicable)

The list below is just a guideline. The Institution may prepare their own list of documents in support of the SAR that they are submitting.

Institution Specific

- I.1. Composition of GC/GB, Senate and other Academic and Administrative bodies, their functions and responsibilities. List of all the meetings held in the past 3 years along with the attendance records, minutes and action-taken reports of a few meetings of such bodies along with the list of current faculty members who are members of such bodies.
- I.2. Rules, policies and procedures published by the Institution including service book and academic regulations along with the proof that the employees/students are aware of the rules and procedures.
- I.3. Budget allocation and utilization: Audited Statement of Accounts.
- I.4. Informative web site.
- I.5. Library resources – books and journal holdings.
- I.6. Listing of core, computing and manufacturing, etc.
- I.7. Records of T & P, career and guidance cells.
- I.8. Records of safety checks and critical installations.
- I.9. Medical care records and usages of ambulance, etc.
- I.10. Academic calendar, schedule of tutorial and makeup classes.
- I.11. Handouts/files along with Outcomes; list of additional topics to meet the outcomes.
- I.12. Set of question papers, assignments, evaluation schemes, etc.
- I.13. Feedback form, analysis of feedback and corrective actions.
- I.14. Documented feedback received from the stake-holders (e.g., Industries, Parents, Alumni, Financiers, etc.) of the Institution.
- I.15. List of faculty along with their qualifications teaching first year courses.
- I.16. Results of the First Year students.

Program Specific

Each program for which an institution seeks accreditation or reaccreditation must have in place:

- P.1 NBA accreditation reports of the past visits, if any.
- P.2 Department budget and allocations (last 3 years data).
- P.3 Admission – seats filled and ranks (last 3 years data).
- P.4 List/Number of students who cleared the program in 4 years (last 3 years data).
- P.5 Average Grade point (CGPA) (last 3 years data of students' CGPA/ percentage).
- P.6 Placement and higher studies data (last 3 years data).
- P.7 Professional society activities, events, conferences organized, etc.
- P.8 List of students' papers along with hard-copies of the publications; professional society publications/magazines, etc.
- P.9 Sample best and average project reports/theses.
- P.10 Details of faculty student ratio.
- P.11 Faculty details with their service books, salary details, sample appointment letters, promotion and award letters/certificates.
- P.12 Faculty list with designation, qualification, joining date, publication, R & D, interaction details.
- P.13 List of faculty publications along with DOIs and publication/citation details.
- P.14 List of R & D and consultancy projects along with approvals and project completion reports
- P.15 List and proofs of faculty interaction with outside world.
- P.16 List of class rooms, faculty rooms.
- P.17 List of program specific labs and computing facilities within the department.
- P.18 List of non-teaching staff with their appointment letters etc.
- P.19 List of short-term courses, workshop arranged and course-modules developed.
- P.20 Records of new program specific facility created, if any.
- P.21 Records of overall program specific improvements, if any.

P.22 Curriculum, POs, PEOs, Mission and Vision statements.

P.23 Mapping of Course Outcomes with Program Outcomes.

P.24 Course files, plan of course delivery, question papers, answer scripts, assignments, reports of assignments, project reports, report of design projects, list of laboratory experiments, reports of laboratory experiments, etc.

P.25. Rubrics developed to validate the POs.

P.26. Improvement in curriculum for mapping POs and PSOs.

P.27. Direct and indirect assessment to show attainment of POs and PSOs.

P.28. Stake-holders involvement in the process of improvement of PEOs and POs.

Annexure VIII

Evaluation Guidelines with Indicative Exhibits / Context to be Observed/Assessed - SAR
Tier – II (UG Engineering)
First Time Accreditation

Criterion 1: Vision, Mission and Program Educational Objectives (60)

Sub	Criteria	Marks	Evaluation Guidelines
1.1.	State the Vision and Mission of the Department and institution	05	<p>A. Availability of the Vision and Mission statements of the Department (1)</p> <p>B. Appropriateness/Relevance of the Statements (2)</p> <p>C. Consistency of the Department statements with the institution statements (2)</p> <p>(Here institution Vision and Mission statements have been asked to ensure consistency with the department Vision and Mission statements; the assessment of the institution Vision and Mission will be done in Criterion 10)</p>

Exhibits/Context to be Observed/Assessed:

- A. Vision and Mission Statements
- B. Correctness from definition perspective
- C. Consistency between institution and Department statements

1.2.	State the Program Educational Objectives (PEOs)	05	A. Listing of the Program Educational Objectives (3 to 5) of the program under consideration (5)
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Exhibits/Context to be Observed/Assessed:

- A. Availability and correctness of the PEOs statements

1.3.	Indicate where and how the Vision, Mission and PEOs are published and disseminated among stakeholders	10	<p>A. Adequacy in respect of publication and dissemination (2)</p> <p>B. Process of dissemination among stakeholders (2)</p> <p>C. Extent of awareness of Vision, Mission and PEOs among the stakeholders (6)</p>
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Exhibits/Context to be Observed/Assessed:

- A. Adequacy Department Vision, Mission and PEOs: Availability on institution website under relevant program link; Availability at department notice boards, HoD Chamber, department website, if Available; Availability in department level documents/course of study
- B. Process of dissemination: Documentary evidence to indicate the process which ensures awareness among internal and external stakeholders with effective process implementation
- C. Extent of Awareness: Based on interaction with internal and external stakeholders

1.4.	State the process for defining the Vision and Mission of the Department, and PEOs of the program	25	<ul style="list-style-type: none"> A. Description of process involved in defining the Vision, Mission of the Department (10) B. Description of process involved in defining the PEOs of the program (15)
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Exhibits/Context to be Observed/Assessed:

- A. Documentary evidence to indicate the process which ensures effective participation of internal and external department stakeholders with effective process implementation

1.5.	Establish consistency of PEOs with Mission of the Department	15	<ul style="list-style-type: none"> A. Preparation of a matrix of PEOs and elements of Mission statement (5) B. Consistency/justification of co-relation parameters of the above matrix (10)
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Exhibits/Context to be Observed/Assessed:

- A. Availability of a matrix having PEOs and Mission elements B. Justification for each of the elements mapped in the matrix

	Total:	60	
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Criterion 2: Program Curriculum and Teaching–Learning Processes (120)

Sub	Criteria	Marks	Evaluation Guidelines
2.1.	Program Curriculum	20	
2.1.1.	State the process used to identify extent of compliance of the University curriculum for attaining the Program Outcomes(POs) and Program Specific Outcomes(PSOs), mention the identified curricular gaps, if any	10	<p>A. Process used to identify extent of compliance of university curriculum for attaining POs and PSOs (6)</p> <p>B. List the curricular gaps for the attainment of defined POs and PSOs (4)</p> <p>Note: In case all POs and PSOs are being demonstrably met through University Curriculum then 2.1.2 will not be applicable and the weightage of 2.1.1 will be 20</p>

Exhibits/Context to be Observed/Assessed:

- A. Documentary evidence to indicate the process which ensures mapping/compliance of University Curriculum with the POs and PSOs; Identification of gaps; if any. Effective participation of internal and external department stakeholders with effective process implementation
- B. Identified Curricular gaps and its Appropriateness

2.1.2.	State the delivery details of the content beyond the syllabus for the attainment of POs and PSOs.	10	<p>A. Steps taken to get identified gaps included in the curriculum.(e.g. letter to university/BOS) (2)</p> <p>B. Delivery details of content beyond syllabus (5)</p> <p>C. Mapping of content beyond syllabus with the POs and PSOs (3)</p>
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Exhibits/Context to be Observed/Assessed:

- A. Documentary evidence of steps taken at regular interval
- B. Delivered details – documentary evidence for at least one sample per assessment year to be verified C. Availability and appropriateness of Mapping table between contents delivered and Program outcomes/Program specific outcomes (Course outcomes)

Sub	Criteria	Marks	Evaluation Guidelines
2.2.	Teaching-Learning	100	
2.2.1.	Describe the process followed to improve quality of Teaching Learning.	25	<p>A. Adherence to Academic Calendar (3)</p> <p>B. Use of various instructional methods and pedagogical initiatives (3)</p> <p>C. Methodologies to support weak students and encourage bright students(4)</p> <p>D. Quality of classroom teaching (Observation in a Class) (3)</p> <p>E. Conduct of experiments (Observation in Lab) (3)</p> <p>F. Continuous Assessment in the laboratory (3)</p> <p>G. Student feedback of teaching learning process and action taken (6)</p>

Exhibits/Context to be Observed/Assessed:

- A. Availability of Academic Calendar based on University academic calendar and its effective compliance
- B. Documentary evidence to support implementation of pedagogical initiatives such as real life examples, collaborative learning, ICT supported learning, interactive class rooms, etc.
- C. Guidelines to identify weak and bright students; post identification actions taken; impact observed
- D. Class room ambience; efforts to keep students engaged (also to be verified during interaction with the students)
- E. Quality of laboratory experience with respect to conducting, recording observations, analysis etc.(also to be verified during interaction with the students)
- F. Internal Semester examination and internal marks thereof, Practical record books, each experiment assessment, final marks based on assessment of all the experiments and other assessments, if any
- G. Feedback format, frequency, analysis and actions taken (also to be verified during interaction with students)

2.2.2.	Quality of internal semester Question papers, Assignments and Evaluation.	20	<p>A. Process for internal semester question paper setting and evaluation and effective process implementation (5)</p> <p>B. Process to ensure questions from outcomes/learning levels perspective (5)</p> <p>C. Evidence of COs coverage in class test / mid-term tests (5)</p> <p>D. Quality of Assignment and its relevance to COs (5)</p>
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Exhibits/Context to be Observed/Assessed:

- A. Process of internal semester question paper setting, model answers, evaluation and its compliance
- B. Question paper validation to ensure desired standard from outcome attainment perspective as well as learning levels perspective
- C. Mapping of questions with the Course outcomes
- D. Assignments to promote self-learning, survey of contents from multiple sources, assignment evaluation and feedback to the students, mapping with the COs

2.2.3.	Quality of student projects	25	<ul style="list-style-type: none"> A. Identification of projects and allocation methodology to Faculty Members (3) B. Types and relevance of the projects and their contribution towards attainment of POs and PSOs(5) C. Process for monitoring and evaluation (5) D. Process to assess individual and team performance (5) E. Quality of completed projects/working prototypes (5) F. Evidences of papers published /Awards received by projects, etc. (2)
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Exhibits/Context to be Observed/Assessed:

- A. Projects identification and guide allocation process
- B. Projects classification (application, product, research, review etc.) consideration to factors such as environment, safety, ethics, cost, standards and mapping with program outcomes and program specific outcomes
- C. Continuous monitoring mechanism and evaluation
- D. Methodology (appropriately documented) to assess individual contribution/understanding of the project as well as collective contribution/understanding
- E. Based on Projects demonstration
- F. Quality of place (host) where the paper has been published /quality of competition in which award has been won

Sub	Criteria	Marks	Evaluation Guidelines
2.2.4.	Initiatives related to industry interaction	15	A. Industry supported laboratories (5) B. Industry involvement in the program design and partial delivery of any regular courses for students (5) C. Impact analysis of industry institution interaction and actions taken thereof (5)

Exhibits/Context to be Observed/Assessed:

- A. Type of industries, type of labs, objectives, utilization and effectiveness
- B. Documentary evidence
- C. Analysis and actions taken thereof

2.2.5.	Initiatives related to industry internship/summer training	15	A. Industrial training/tours for students (3) B. Industrial /internship /summer training of more than two weeks and post training Assessment (4) C. Impact analysis of industrial training (4) D. Student feedback on initiative (4)
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Exhibits/Context to be Observed/Assessed:

A and B. Type of Industries, planned or non-planned activity, objectives clearly defined, no. of students participated, relevant area of training, visit report documented

C and D. Impact analysis and feedback format, analysis and actions taken (also to be verified during interaction with students)

Total:		120	
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Criterion 3: Course Outcomes and Program Outcomes (120)

Sub	Criteria	Marks	Evaluation Guidelines
3.1.	Establish the correlation between the courses and the POs and PSOs	20	
3.1.1.	Course Outcomes	05	A. Evidence of COs being defined for every course (5)

Exhibits/Context to be Observed/Assessed:

- A. Appropriateness of the statements shall be seen for at least one course each from 2nd, 3rd and final year of study.

3.1.2.	CO-PO/PSOs matrices of courses selected in 3.1.1 (six matrices)	05	A. Explanation of table to be ascertained (5)
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Exhibits/Context to be Observed/Assessed:

- A. Mapping to be verified for atleast two matrices

3.1.3.	Program level Course- PO/PSOs matrix of ALL courses including first year courses	10	A. Explanation of tables to be ascertained (10)
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Exhibits/Context to be Observed/Assessed:

- A. Mapping to be verified for at least one course per year of study; program outcomes and program specific outcomes getting mapped with the core courses are also to be verified

3.2.	Attainment Course Outcomes	50	
3.2.1	Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based.	10	A. List of assessment processes (2) B. The quality /relevance of assessment processes and tools used (8)

Exhibits/Context to be Observed/Assessed:

- A. and B. Evidence for appropriate assessment processes including data collection, verification, analysis, decision making.

3.2.2.	Record the attainment of Course Outcomes of all courses with respect to set attainment levels.	40	A. Verify the attainment levels as per the benchmark set for all courses (40)
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Exhibits/Context to be Observed/Assessed:

- A. Methodology to define set levels and its compliance; data collection, verification, analysis and decision making; details for one course per year of study to be verified

3.3.	Attainment of Program Outcomes and Program Specific Outcomes	50	
3.3.1.	Describe assessment tools and processes used for assessing the attainment of each of the POs and PSOs	10	A. List of assessment tools and processes (5) B. The quality/relevance of assessment tools/processes used (5)

Exhibits/Context to be Observed/Assessed:

- A. A and B. Direct and indirect assessment tools and processes; effective compliance; direct assessment methodology, indirect assessment formats-collection-analysis; decision making based on direct and indirect assessment

3.3.2.	Provide results of evaluation of each PO and PSO	40	A. Verification of documents, results and level of attainment of each PO/PSO (24) B. Overall levels of attainment (16 marks)
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Exhibits/Context to be Observed/Assessed:

- A. and B. Appropriate attainment level and documentary evidences; details for POs and PSOs attainment from core courses to be verified. Also atleast two POs and two PSOs attainment levels shall be verified

	Total	120	
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Criterion 4: Students' Performance (150)

Sub	Criteria	Marks	Evaluation Guidelines
4.1.	Enrolment Ratio (20)	20	<p>A. $\geq 90\%$ students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year (20)</p> <p>B. $\geq 80\%$ students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year (18)</p> <p>C. $\geq 70\%$ students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year (16)</p> <p>D. $\geq 60\%$ students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year (14)</p> <p>E. $\geq 50\%$ students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year (12)</p> <p>F. Otherwise '0'.</p>

Exhibits/Context to be Observed/Assessed:

A, B and C. Data to be verified for each of the assessment years

4.2.	Success Rate in the stipulated period of the program	40	
4.2.1.	Success rate without backlogs in any Semester/year of study Without Backlog means no compartment or failures in any semester/year of study	25	<p>SI = (Number of students who graduated from the program without backlog)/(Number of students admitted in the first year of that batch and actually admitted in 2nd year via lateral entry and separate division, if applicable)</p> <p>Average SI = Mean of success index (SI) for past three batches</p> <p>Success rate without backlogs in any year of study = $25 \times \text{Average SI}$</p>

Exhibits/Context to be Observed/Assessed:

A. Data to be verified for each of the assessment years

4.2.2.	Success rate in stipulated period (actual duration of the program) [Total of with backlog + without backlog]	15	SI = (Number of students who graduated from the program in the stipulated period of course duration)/(Number of students admitted in the first year of that batch and actually admitted in 2nd year via lateral entry and separate division, if applicable) Average SI = mean of success index (SI) for past three batches Success rate = 15 × Average SI
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Exhibits/Context to be Observed/Assessed:

A. Data to be verified for each of the assessment years

Note: if 100% students clear without any backlog then also total marks scored will be 40 as both 4.2.1 and 4.2.2 will be applicable simultaneously.

4.3.	Academic Performance in Third Year	15	Academic Performance = 1.5 * Average API (Academic Performance Index) API = ((Mean of 3rd Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Third Year/10)) × (successful students/number of students appeared in the examination) Successful students are those who are permitted to proceed to the final year
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Exhibits/Context to be Observed/Assessed:

A. Data to be verified for at least one of the assessment years

4.4.	Academic Performance in Second Year	15	Academic Performance Level = 1.5 * Average API (Academic Performance Index) API = ((Mean of 2nd Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful student sin Second Year/10)) × (successful students/number of students appeared in the examination) Successful students are those who are permitted to proceed to the Third year
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4.5.	Placement, Higher Studies and Entrepreneurship	40	<p>Assessment Points = $40 \times \text{average of three years of } [(x + y + z)/N]$ where, x = Number of students placed in companies or Government sector through on/off campus recruitment</p> <p>y = Number of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National level tests, GRE, GMAT etc.)</p> <p>z = No. of students turned entrepreneur in engineering/technology N = Total number of final year students</p>
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Exhibits/Context to be Observed/Assessed:

A. Data to be verified for at least one of the assessment years

4.6.	Professional Activities	20	
4.6.1.	Professional societies / chapters and organizing engineering events	05	<p>A. Availability and activities of professional societies/chapters (3)</p> <p>B. Number, quality of engineering events (organized at institution) (2) (Level - Institution /State/ National/International)</p>

Exhibits/Context to be Observed/Assessed:

Self-Explanatory

4.6.2.	Publication of technical magazines, newsletters, etc.	05	<p>A. Quality and Relevance of the contents and Print Material (3)</p> <p>B. Participation of Students from the program (2)</p>
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Exhibits/Context to be Observed/Assessed:

A. Documentary evidence

B. Documentary evidence - Students participation (also to be confirmed during interaction with the students)

4.6.3.	Participation in inter-institution events by students of the program of study	10	A. Events within the state (2) B. Events outside the state (3) C. Prizes/awards received in such events (5)
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Exhibits/Context to be Observed/Assessed:

A. Documentary evidence

A, B and C. Quality of events and documentary evidence

	Total:	150	
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Criterion 5: Faculty Information and Contributions (200)

Sub	Criteria	Marks	Evaluation Guidelines
5.1.	Student-Faculty Ratio (SFR)	20	<p>Marks to be given proportionally from a maximum of 20 to a minimum of 10 for average SFR between 15:1 to 25:1, and zero for average SFR higher than 25:1. Marks distribution is given as below:</p> <p>< = 15 - 20 Marks</p> <p>< = 17 - 18 Marks</p> <p>< = 19 - 16 Marks</p> <p>< = 21 - 14 Marks</p> <p>< = 23 - 12 Marks</p> <p>< = 25 - 10 Marks</p> <p>> 25 - 0 Marks</p>

Exhibits/Context to be Observed/Assessed:

- SFR is to be verified considering the faculty of the entire department.
- No. of Regular faculty calculation considering **Regular faculty definition***; Faculty appointment letters, time table, subject allocation file, salary statements.
- No. of students calculation as mentioned in the SAR (please refer table under criterion 5.1)
- Faculty Qualification as per AICTE guidelines shall only be counted

***Note:** All the faculty whether regular or contractual (except Part-Time), will be considered. The contractual faculty (doing away with the terminology of visiting/adjunct faculty, whatsoever) who have taught for 2 consecutive semesters in the corresponding academic year on full time basis shall be considered for the purpose of calculation in the Faculty Student Ratio.

However, following will be ensured in case of contractual faculty:

1. Shall have the AICTE prescribed qualifications and experience.
2. Shall be appointed on full time basis and worked for consecutive two semesters during the particular academic year under consideration.
3. Should have gone through an appropriate process of selection and the records of the same shall be made available to the visiting team during NBA visit.

5.2.	Faculty Cadre Proportion	20	<p>Cadre Proportion Marks =</p> $\left[\left[\frac{AF1}{RF1} \right] + \left[\frac{AF2 \times 0.6}{RF2} \right] + \left[\frac{AF3 \times 0.4}{RF3} \right] \right] \times 10$ <ul style="list-style-type: none"> • If AF1 = AF2 = 0 then zero marks • Maximum marks to be limited if it exceeds 20 (Refer calculation in SAR)
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Exhibits/Context to be Observed/Assessed:

(Faculty Qualification and experience required for cadre posts shall only be considered as per AICTE norms/guidelines)

- Cadre wise No. of faculty available; Faculty qualification and experience and eligibility; Appointment/Promotion orders
- Cadre wise no. of faculty required as per AICTE guidelines (refer calculation in SAR)

5.3.	Faculty Qualification	25	<p>$FQ = 2.5 \times \left\{ \frac{10X + 4Y}{F} \right\}$ where X is no. of faculty with Ph.D., Y is no. of faculty with M.Tech, F is no. of faculty required to comply 1:20 Faculty Student ratio (no. of faculty and no. of students required to be calculated as per 5.1)</p>
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Exhibits/Context to be Observed/Assessed:

- Documentary evidence – Faculty Qualification

5.4.	Faculty Retention	25	<p>A. ³ 90% of required Faculties retained during the period of assessment keeping CAYm2 as base year (25)</p> <p>B. ³ 75% of required Faculties retained during the period of assessment keeping CAYm2 as base year (20)</p> <p>C. ³ 60% of required Faculties retained during the period of assessment keeping CAYm2 as base year (15)</p> <p>D. ³ 50% of required Faculties retained during the period of assessment keeping CAYm2 as base year (10)</p> <p>E. Otherwise (0)</p>
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Exhibits/Context to be Observed/Assessed:

- Faculty date of joining; at least three month (July-April-May) salary statement for each of the assessment years

5.5.	Innovations by the Faculty in Teaching and Learning	20	<p>A. The work must be made available on institution Website (4)</p> <p>B. The work must be available for peer review and critique (4)</p> <p>C. The work must be reproducible and developed further by other scholars (2)</p> <p>D. Statement of clear goals, use of appropriate methods, significance of results, effective presentation and reflective critique (10)</p>
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Exhibits/Context to be Observed/Assessed:

- A. Availability on institution website; awareness among faculty and students of the department
- B. and C. Self-explanatory
- D. Innovations that contribute to the improvement of student learning, typically include use of ICT, instruction delivery, instructional methods, assessment, evaluation etc.

5.6.	Faculty as participants in Faculty development/training activities /STTPs	15	For each year: Assessment = $3 \times \text{Sum} / 0.5\text{RF}$ Average assessment over last three years starting from CAYm1 (Marks limited to 15)
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Exhibits/Context to be Observed/Assessed:

- Relevance of the training/development programme
- No. of days; No. of faculty

5.7.	Research and Development	30	
5.7.1.	Academic Research	10	<p>A. Number of quality publications in refereed/SCI Journals, citations, Books/Book Chapters etc. (6)</p> <p>B. PhD guided /PhD awarded during the assessment period while working in the institution (4)</p>

Exhibits/Context to be Observed/Assessed:

- A. Quality of publications; publications copy
- B. Documentary evidence

5.7.2.	Sponsored Research	05	<p>Funded research from outside; Cumulative during CAYm1, CAYm2 and CAYm3 Amount > 20 Lakh – 5 Marks</p> <p>Amount > = 16 Lakh and < = 20 Lakh – 4 Marks</p> <p>Amount > = 12 Lakh and < 16 Lakh – 3 Marks</p> <p>Amount > = 8 Lakh and < 12 Lakh – 2 Marks</p> <p>Amount > = 4 Lakh and < 8 Lakh – 1 Mark</p> <p>Amount < 4 Lakh – 0 Mark</p>
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Exhibits/Context to be Observed/Assessed:

- Documentary evidence; Funding agency, Amount, Duration, Research progress; Outcome

5.7.3.	Development Activities	10	A. Product Development B. Research laboratories C. Instructional materials D. Working models/charts/monograms, etc.
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Exhibits/Context to be Observed/Assessed:

- Self explanatory

5.7.4.	Consultancy (From Industry)	05	Consultancy; (Cumulative during CAYm1, CAYm2 and CAYm3) Amount > 10 Lakh – 5 Marks Amount > = 8 Lakh and < = 10 Lakh – 4 Marks Amount > = 6 Lakh and < 8 Lakh – 3 Marks Amount > = 4 Lakh and < 6 Lakh – 2 Marks Amount > = 2 Lakh and < 4 Lakh – 1 Mark Amount < 2 Lakh – 0 Mark
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Exhibits/Context to be Observed/Assessed:

- Documentary evidence; Funding agency, Amount, Duration, Research progress; Outcome

5.8.	Faculty Performance Appraisal and Development System (FPADS)	30	A. A well-defined performance appraisal and development system instituted for all the assessment years (10) B. Its implementation and effectiveness (20)
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Exhibits/Context to be Observed/Assessed:

- Notified performance appraisal and development system; Appraisal Parameters; Awareness
- Implementation, Transparency and Effectiveness

5.9.	Visiting/Adjunct/Emeritus Faculty etc.	10	<ul style="list-style-type: none"> • Provision of Visiting /Adjunct/Emeritus faculty etc.(1) • Minimum 50 hours per year interaction (per year to obtain three marks : 3 x 3 = 9)
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Exhibits/Context to be Observed/Assessed:

- Documentary evidence

	Total:	200	
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Criterion 6: Facilities and Technical Support (80)

Sub	Criteria	Marks	Evaluation Guidelines
6.1.	Adequate and well equipped laboratories, and technical manpower	30	A. Adequate well-equipped laboratories to run all the program-specific curriculum (20) B. Availability of adequate technical supporting staff (5) C. Availability of qualified technical supporting staff (5)

Exhibits/Context to be Observed/Assessed:

- A. Adequacy; well-equipped laboratories; utilization
B. and C. Self-explanatory

6.2.	Additional Facilities created for improving the quality of learning experience in Laboratories	25	A. Availability and relevance of additional facilities(10) B. Facilities utilization and effectiveness (10) C. Relevance to POs and PSOs (5)
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Exhibits/Context to be Observed/Assessed:

Self-explanatory

6.3.	Laboratories: Maintenance and overall ambience	10	Maintenance and overall ambience (10)
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Exhibits/Context to be Observed/Assessed:

Self-explanatory

6.4.	Project laboratory	05	Facilities and Utilization (5)
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Exhibits/Context to be Observed/Assessed:

Self-explanatory

6.5.	Safety measures in laboratories	10	Safety measures in laboratories (10)
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Exhibits/Context to be Observed/Assessed:

Self-explanatory

	Total:	80	
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Criterion 7: Continuous Improvement (50)

Sub	Criteria	Marks	Evaluation Guidelines
7.1.	Actions taken based on the results of evaluation of each of the POs and PSOs	20	A. Documentation of POs and PSOs attainment levels (5) B. Identification of gaps/shortfalls (5) C. Plan of action to bridge the gap and its Implementation (10)

Exhibits/Context to be Observed/Assessed:

- Documentary evidence in respect of each of the Pos

7.2	Academic Audit and actions taken during the period of Assessment	10	A. Assessment shall be based on conduct and actions taken in relation to continuous improvement (10)
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Exhibits/Context to be Observed/Assessed:

- A. Academic Audit assessment criteria, frequency, conduct mechanism, action plan based on audit, implementation and effectiveness

7.3.	Improvement in Placement, Higher Studies and Entrepreneurship	10	Assessment is based on improvement in: (Refer placement index 4.5) A. Improvement in Placement numbers, quality, core hiring industry and pay packages (5) B. Improvement in Higher Studies admissions for pursuing PhD. in premier institutions(3) C. Improvement in number of Entrepreneurs (2) (Marks to be given proportionately considering nos. in the base year CAYm3)
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Exhibits/Context to be Observed/Assessed:

- A, B and C. Nos. in each year of the assessment; improvement considering CAYm3 as a base year

7.4.	Improvement in the quality of students admitted to the program	10	A. Assessment is based on improvement in terms of ranks/score in qualifying state level/national level entrances tests, percentage Physics, Chemistry and Mathematics in 12th marks Standard and percentage marks of the lateral entry students.
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Exhibits/Context to be Observed/Assessed:

- A. Documentary evidence – list of students admitted; admission authority guidelines; ranks/scores; comparative status considering CAYm3 as a base year

Total: 50

Criterion 8: First Year Academics (50)

Sub	Criteria	Marks	Evaluation Guidelines
8.1.	First Year Student- Faculty Ratio (FYSFR)	05	For each year of assessment = $(5 \times 20)/\text{FYSFR}$ (Limited to Max. 5) Average of Assessment of data in CAY, CAYm1 and CAYm2 *Note: If FYSFR is greater than 25, then assessment equal to zero.

Exhibits/Context to be Observed/Assessed:

- No. of Regular faculty calculation considering Regular faculty definition and fractional load; Faculty appointment letters; Salary statements
- No. of students calculation as mentioned in the SAR

8.2.	Qualification of Faculty Teaching First Year Common Courses	05	A. Assessment of faculty qualification $(5x + 3y)/\text{RF}$ B. Average of Assessment of previous three academic years including current academic year. (Refer 8.2. for x, y and RF)
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Exhibits/Context to be Observed/Assessed:

- Documentary evidence – Faculty Qualification

8.3.	First Year Academic Performance	10	Academic Performance = $((\text{Mean of 1st Year Grade Point Average of all successful Students on a 10 point scale}) \text{ or } (\text{Mean of the percentage of marks in First Year of all successful students}/10)) \times (\text{successful students}/\text{number of students appeared in the examination})$ (Successful students are those who are permitted to proceed to the Second year)
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Exhibits/Context to be Observed/Assessed:

- Data to be verified for at least one of the assessment years

8.4.	Attainment of Course Outcomes of first year courses	10	Criterion 8: First Year Academics (50)
8.4.1.	Describe the assessment processes used to gather the data upon which the evaluation of Course Outcomes of first year is based.	05	A. List of assessment processes (1) B. The relevance of assessment tools used (4)

Exhibits/Context to be Observed/Assessed:

- A and B. Direct and indirect assessment(if applicable), tools and processes; effective compliance; direct assessment methodology, indirect assessment formats-collection-analysis; decision making

8.4.2.	Record the attainment of Course Outcomes of all first year courses	05	A. Verify the records as per the benchmark set for the courses (5)
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Exhibits/Context to be Observed/Assessed:

- A. Documentary evidence – Attainment for atleast 3 courses

8.5.	Attainment of Program Outcomes of all first year courses	20	
8.5.1.	Indicate results of evaluation of each relevant PO/PSO	15	A. Process of computing POs/PSOs attainment level from the COs of related first year courses (5) B. Verification of documents validating the above process (10)

Exhibits/Context to be Observed/Assessed:

- A and B. Documentary evidence for each relevant PO/PSO

8.5.2.	Actions taken based on the results of evaluation of relevant POs/PSOs	05	A. Appropriate actions taken (5)
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Exhibits/Context to be Observed/Assessed:

- A. Documentary evidence for each relevant PO/PSO

	Total	50	
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Criterion 9: Student Support Systems (50)

Sub	Criteria	Marks	Evaluation Guidelines
9.1.	Mentoring system to help at individual level	05	A. Details of the mentoring system that has been developed for the students for various purposes and also state the efficacy of such system (5)

Exhibits/Context to be Observed/Assessed:

- A. Mentoring system terms of reference; implementation; effectiveness (also to be verified during interaction with the students)

9.2.	Feedback analysis and /reward corrective measures taken, if any	10	A. Methodology being followed for analysis of feedback and its effectiveness (5) B. Record of corrective measures taken (5)
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Exhibits/Context to be Observed/Assessed:

- A. Feedback questions, collection process, analysis, actions taken, effectiveness

9.3.	Feedback on facilities	05	A. Feedback collection, analysis and corrective action (5)
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Exhibits/Context to be Observed/Assessed:

Self explanatory

9.4.	Self Learning	05	A. Scope for self-learning (2) B. The institution needs to specify the facilities, materials for learning beyond syllabus, Webinars, Podcast, MOOCs etc. and demonstrate its effective utilization (3)
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Exhibits/Context to be Observed/Assessed:

Self explanatory

9.5.	Career Guidance, Training, Placement	10	A. Availability of career guidance facilities (2) B. Counseling for higher studies (GATE/GRE, GMAT, etc.) (2) C. Pre-placement training (3) D. Placement process and support (3)
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Exhibits/Context to be Observed/Assessed:

Availability, implementation, effectiveness (also to be verified during interaction with the students)

9.6.	Entrepreneurship Cell	05	A. Entrepreneurship initiatives (1) B. Data on students benefitted (4)
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Exhibits/Context to be Observed/Assessed:

Availability, implementation, effectiveness (also to be verified during interaction with the students)reference;
implementation; effectiveness (also to be verified during interaction with the students)

9.7.	Co-curricular and Extra-curricular Activities	10	A. Availability of sports and cultural facilities (3) B. NCC, NSS and other clubs (3) C. Annual students activities (4)
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Exhibits/Context to be Observed/Assessed:

Availability, implementation, effectiveness (also to be verified during interaction with the students)

	Total:	50	
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Criterion 10: Governance, Institutional Support and Financial Resources (120)

10.1.	Organization, Governance and Transparency	40	
10.1.1.	State the Vision and Mission of the institution	05	A. Availability of the Vision and Mission statements of the institution (2) B. Appropriateness/Relevance of the Statements (3)

Exhibits/Context to be Observed/Assessed:

A. Institution Vision and Mission statements: Availability of statements on institution website; Availability at Central facilities such as Library, Computer Center, Principal Chamber etc. Availability of one set of statements in each of the departments; Availability in institution level documents

B. Correctness from definition perspective

10.1.2.	Governing body, administrative setup, functions of various bodies, service rules procedures, recruitment and promotional policies.	10	A. List the Governing Body Composition, senate, and all other academic and administrative bodies; their memberships, functions, and responsibilities; frequency of the meetings; participation details of external members and attendance therein (4) B. The published service rules, policies and procedures with year of publication (3) C. Minutes of the meetings and action-taken reports (3)
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Exhibits/Context to be Observed/Assessed:

Self explanatory

10.1.3.	Decentralization in working and grievance redressal mechanism	10	A. List the names of the faculty members who have been delegated powers for taking administrative decisions (1) B. Specify the mechanism and composition of grievance redressal cell (2) C. Action taken report as per 'B' above (7)
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Exhibits/Context to be Observed/Assessed:

A. B. and C. Documentary evidence

10.1.4	Delegation of financial powers	10	A. Financial powers delegated to the Principal, Heads of Departments and relevant in-charges (3) B. Demonstrate the utilization of financial powers for each of the assessment years (7)
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Exhibits/Context to be Observed/Assessed:

- A. Circulars notifying financial powers
- B. Documentary evidence to exhibit utilization at each levels during assessment years

10.1.5.	Transparency and availability of correct/unambiguous information in public domain	05	A. Information on the policies, rules, processes is to be made available on web site (2) B. Dissemination of the information about student, faculty and staff (3)
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Exhibits/Context to be Observed/Assessed:

- A. and B. Website and Documentary evidence

10.2.	Budget Allocation, Utilization, and Public Accounting at institution level	30	
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10.2.1.	Adequacy of Budget allocation	10	A. Quantum of budget allocation for three years (5) B. Justification of budget allocated for three years (5)
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Exhibits/Context to be Observed/Assessed:

- A. Budget formulation, finalization and approval process
- B. Requirement – allocation –adequacy – justification thereof

10.2.2.	Utilization of allocated funds	15	A. Budget utilization for three years (15)
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Exhibits/Context to be Observed/Assessed:

- A. Balance sheet; effective utilization; random verification for atleast two of the three assessment years

10.2.3.	Availability of the audited statements on the institution's	05	A. Availability of Audited statements on website (5)
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Exhibits/Context to be Observed/Assessed:

- A. Website

10.3.	Program Specific Budget Allocation, Utilization	30	To be evaluated in consultation with the Program Experts
10.3.1.	Adequacy of budget allocation	10	A. Quantum of budget allocation for three years (5) B. Justification of budget allocated for three years (5)

Exhibits/Context to be Observed/Assessed:

- A. Budget formulation, finalization and approval process
- B. Requirement – allocation –adequacy – justification thereof

10.3.2.	Utilization of allocated funds	20	A. Budget utilization for three years (20)
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Exhibits/Context to be Observed/Assessed:

- A. Balance sheet; effective utilization; random verification for atleast two of the three assessment years

10.4.	Library and Internet	20	
10.4.1.	Quality of learning resources (hard/soft)	10	A. Availability of relevant learning resources including e-resources and Digital Library (7) B. Accessibility to students (3)

Exhibits/Context to be Observed/Assessed:

- A. Budget formulation, finalization and approval process
- B. Requirement – allocation –adequacy – justification thereof

10.2.2.	Utilization of allocated funds	15	A. Budget utilization for three years (15)
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Exhibits/Context to be Observed/Assessed:

Availability; Adequacy; Effectiveness

(Also to be verified during interactions with the faculty and students)

10.4.2.	Internet	10	A. Available bandwidth (4) B. Wi Fi availability (2) C. Internet access in labs, classrooms, library and offices of all Departments (2) D. Security mechanism (2)
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Exhibits/Context to be Observed/Assessed:

Availability as per AICTE norms; Adequacy; Effectiveness

(Also to be verified during interactions with the faculty and students)

	Total:	120	
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Annexure IX

Part A

Chairperson's Visit Report

Undergraduate Engineering Program TIER-II

Name of the Institution

.....

Name of the Program

.....

Visit Dates

.....

Team Composition

Name of the Chairperson:

Designation:

Program 1

Program Evaluator 1	Name :
	Organization:
Program Evaluator 2	Name :
	Organization:

Program 2

Program Evaluator 1	Name :
	Organization:
Program Evaluator 2	Name:
	Organization:

Program 3

Program Evaluator 1	Name :
	Organization:
Program Evaluator 2	Name:
	Organization:

Program 4

Program Evaluator 1	Name:
	Organization:
Program Evaluator 2	Name:
	Organization:

Program 5

Program Evaluator 1	Name:
	Organization:
Program Evaluator 2	Name:
	Organization:

Institute Details**Year of Establishment:****Physical Infrastructure and Ambience:****Number of Programs being Run in the Institution***

(I) UG -

(II) PG -

Number of Programs being Run in the Institution*

(I) In UG programs -

(II) In PG programs -

Name of Programs Applied for Accreditation

(I).....

(II).....

(III).....

(IV).....

(V).....

**to be verified from the SAR*

Information for Evaluation

Award of Accreditation [TIER II (UG)]

1 Accreditation for six years will be accorded to a program on fulfilment of the following requirements:

- (i). Program should score a minimum of 750 points in aggregate out of 1000 points with minimum score of 60 per cent in mandatory fields (i.e. criteria 4 to 6)
- (ii). Number of available Ph.D. in the department should be greater than or equal to 30 per cent of the required number of faculty, averaged over two academic years i.e. Current Academic Year (CAY) and Current Academic Year Minus One (CAYM1).
- (iii). The admissions in the UG program should be more than or equal to 50 per cent, averaged over three academic years (including lateral entry), i.e., Current Academic Year minus One (CAYm1), Current Academic Year minus Two (CAYm2) and Current Academic Year minus Three (CAYM3).
- (iv). Faculty Student Ratio in the department should be less than or equal to 1:20, averaged over three academic years i.e. Current Academic Year (CAY), Current Academic Year Minus One (CAYM1) and Current Academic Year Minus Two (CAYM2).
- (v). At least 2 Professors or 1 Professor and 1 Associate Professor on regular basis with Ph.D. degree should be available in the respective department for two academic years i.e. Current Academic Year (CAY) and Current Academic Year Minus One (CAYM1).
- (vi). HoD of the program under consideration possesses Ph.D. degree in the Current Academic Year (CAY).

2 Accreditation for Three years will be accorded to a program on fulfilment of the following requirements:

- (i). Program should score a minimum of 600 points with atleast 40 per cent marks in Criterion V (Faculty Information and Contributions).
- (ii). The admissions in the UG program should be more than or equal to 50 per cent, averaged over three academic years (including lateral entry), i.e., Current Academic Year minus One (CAYm1), Current Academic Year minus Two (CAYm2) and Current Academic Year minus Three (CAYM3).
- (iii). At least one Professor or one Associate Professor on regular basis with Ph.D. degree is available in the respective department for two academic years i.e. Current Academic Year (CAY) and Current Academic Year Minus One (CAYM1).
- (iv). The faculty student ratio in the department under consideration should be less than or equal to 1:25, averaged over three academic years i.e. Current Academic Year (CAY), Current Academic Year Minus One (CAYM1) and Current Academic Year Minus Two (CAYM2).
- (v). Number of Ph.D. available in the department should be greater than or equal to 10 per cent of the required number of faculty, averaged over two academic years i.e. Current Academic Year (CAY) and Current Academic Year Minus One (CAYM1).

No Accreditation of the program

If the program fails to meet the criteria for award of accreditation for three years, it is awarded "Not Accredited" Status

Name of the Program 1:

Marks given by Evaluators

A Department/Program Specific Criteria

Sl. No.	Criteria	Max. Marks	Max. Awarded	Remarks
1.	Vision, Mission and Program Educational Objectives	60		
2.	Program Curriculum and Teaching-Learning Processes	120		
3.	Course Outcomes and Program Outcomes	120		
4.	Students' Performance	150		
5.	Faculty Information and Contributions	200		
6.	Facilities and Technical Support	80		
7.	Continuous Improvement	50		
	TOTAL	780		

B Institute Level Criteria (to be filled-in by the Chairperson)

Sl. No.	Criteria	Max. Marks	Max. Awarded	Remarks
8.	First Year Academics	50		
9.	Student Support Systems	50		
10.	Governance, Institutional Support and Financial Resources	120		
	TOTAL	220		
	GRAND TOTAL (A + B)	1000		

*Assessment for Criteria 8 (8.3, 8.4 & 8.5) and 10 (10.3) is different for individual program.

 Signature
(Chairperson)

Name of the Program 2:

Marks given by Evaluators

A Department/Program Specific Criteria

Sl. No.	Criteria	Max. Marks	Max. Awarded	Remarks
1.	Vision, Mission and Program Educational Objectives	60		
2.	Program Curriculum and Teaching-Learning Processes	120		
3.	Course Outcomes and Program Outcomes	120		
4.	Students' Performance	150		
5.	Faculty Information and Contributions	200		
6.	Facilities and Technical Support	80		
7.	Continuous Improvement	50		
	TOTAL	780		

B Institute Level Criteria (to be filled-in by the Chairperson)

Sl. No.	Criteria	Max. Marks	Max. Awarded	Remarks
8.	First Year Academics	50		
9.	Student Support Systems	50		
10.	Governance, Institutional Support and Financial Resources	120		
	TOTAL	220		
	GRAND TOTAL (A + B)	1000		

*Assessment for Criteria 8 (8.3, 8.4 & 8.5) and 10 (10.3) is different for individual program.

 Signature
(Chairperson)

Name of the Program 3:

Marks given by Evaluators

A Department/Program Specific Criteria

Sl. No.	Criteria	Max. Marks	Max. Awarded	Remarks
1.	Vision, Mission and Program Educational Objectives	60		
2.	Program Curriculum and Teaching-Learning Processes	120		
3.	Course Outcomes and Program Outcomes	120		
4.	Students' Performance	150		
5.	Faculty Information and Contributions	200		
6.	Facilities and Technical Support	80		
7.	Continuous Improvement	50		
	TOTAL	780		

B Institute Level Criteria (to be filled-in by the Chairperson)

Sl. No.	Criteria	Max. Marks	Max. Awarded	Remarks
8.	First Year Academics	50		
9.	Student Support Systems	50		
10.	Governance, Institutional Support and Financial Resources	120		
	TOTAL	220		
	GRAND TOTAL (A + B)	1000		

*Assessment for Criteria 8 (8.3, 8.4 & 8.5) and 10 (10.3) is different for individual program.

 Signature
(Chairperson)

Name of the Program 4:

Marks given by Evaluators

A Department/Program Specific Criteria

Sl. No.	Criteria	Max. Marks	Max. Awarded	Remarks
1.	Vision, Mission and Program Educational Objectives	60		
2.	Program Curriculum and Teaching-Learning Processes	120		
3.	Course Outcomes and Program Outcomes	120		
4.	Students' Performance	150		
5.	Faculty Information and Contributions	200		
6.	Facilities and Technical Support	80		
7.	Continuous Improvement	50		
	TOTAL	780		

B Institute Level Criteria (to be filled-in by the Chairperson)

Sl. No.	Criteria	Max. Marks	Max. Awarded	Remarks
8.	First Year Academics	50		
9.	Student Support Systems	50		
10.	Governance, Institutional Support and Financial Resources	120		
	TOTAL	220		
	GRAND TOTAL (A + B)	1000		

*Assessment for Criteria 8 (8.3, 8.4 & 8.5) and 10 (10.3) is different for individual program.

 Signature
(Chairperson)

Name of the Program 5:

Marks given by Evaluators

A Department/Program Specific Criteria

Sl. No.	Criteria	Max. Marks	Max. Awarded	Remarks
1.	Vision, Mission and Program Educational Objectives	60		
2.	Program Curriculum and Teaching-Learning Processes	120		
3.	Course Outcomes and Program Outcomes	120		
4.	Students' Performance	150		
5.	Faculty Information and Contributions	200		
6.	Facilities and Technical Support	80		
7.	Continuous Improvement	50		
	TOTAL	780		

B Institute Level Criteria (to be filled-in by the Chairperson)

Sl. No.	Criteria	Max. Marks	Max. Awarded	Remarks
8.	First Year Academics	50		
9.	Student Support Systems	50		
10.	Governance, Institutional Support and Financial Resources	120		
	TOTAL	220		
	GRAND TOTAL (A + B)	1000		

*Assessment for Criteria 8 (8.3, 8.4 & 8.5) and 10 (10.3) is different for individual program.

 Signature
(Chairperson)

Overall Observations

1.

SI No	Name of the Program	Intake			Admissions	Student-Faculty Ratio
		CAY	CAYm1	CAYm2		

Also, see the Evaluator's Report for the above parameters and if you disagree with the same, kindly give your comment.

2. About the Progress since Last Accreditation (to be filled-in for institutions who have applied for re-accreditation)

Kindly mention the changes made as recommended by NBA, since the previous visit.

3. Observation on General Facilities and about the Programs

Kindly mention general observations about facilities like labs, library, etc. and a general review about the programs.

- ☞ 1st year
- ☞ Academic Ambience
- ☞ Student Support Systems
- ☞ Strengths, Weaknesses, Concerns, Suggestions

4. Status of Imbibing of Outcome-based Accreditation. For Example:

- ☞ Formulation of PEOs, PSOs, COs and mappings carried out and implemented
- ☞ Methodology for assessing the attainment of outcomes
- ☞ Continual improvement process has been set up
- ☞ Stakeholders (especially the faculty, HoD, students, etc.) awareness about the process

Annexure IX

Part B

Part B-Program Assessment Worksheet

Institute Level Criteria to be Assessed by the Chairperson

Name of the Institution

Name of the Program

Criterion 8: First Year Academics (50)

Sl. No	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall Marks	Observations of Evaluator _s (Provide Justifications/ Reasons)
				Marks	Total		
8.1.	First Year Student-Faculty Ratio (FYSFR)	5	For each year of assessment = $(5 \times 20) / \text{FYSFR}$ (Limited to Max. 5) Average of previous three academic years including Current Academic Year. *Note: If FYSFR is greater than 25, then assessment equal to zero.			Overall Marks for 8.1	Mention Numbers
8.2.	Qualification of Faculty Teaching First Year Common Courses	5	A. Assessment of faculty qualification $(5x + 3y) / \text{RF}$ B. Average of Assessment of last three years including current academic year (Refer 8.2. for x, y and RF)			Overall Marks for 8.2	Mention Numbers
8.3.	First Year Academic Performance	10	Academic Performance = $((\text{Mean of 1st Year Grade Point Average of all successful Students on a 10 point scale}) \text{ or } (\text{Mean of the percentage of marks in First Year of all successful students}/10)) \times (\text{successful students}/\text{number of students appeared in the examination})$ Successful students are those who are permitted to proceed to the Second year			Overall Marks for 8.3	Mention Numbers
8.4.	Attainment of Course Outcomes of first year courses	10				Overall Marks for 8.4	
8.4.1.	Describe the assessment processes used to gather the data upon which the evaluation of Course Outcomes of first year is based	5	A. List of assessment processes (1) B. The relevance of assessment tools used (4)				

8.4.2.	Record the attainment of Course Outcomes of all first year courses	5	Verify the records as per the benchmark set for the courses (5)			Overall Marks for 8.4	
8.5.	Attainment of Program Outcomes of all first year courses	20				Overall Marks for 8.5	
8.5.1.	Indicate results of evaluation of each relevant PO/PSO	15	A.Process of computing POs/PSOs attainment level from the COs of related first year courses (5)				
			B. Verification of documents validating the above process (10)				
8.5.2.	Actions taken based on the results of evaluation of relevant POs /PSOs	5	Appropriate actions taken (5)				
Total of Criterion 8		50	Overall Marks for Criterion 8				

Criterion 9: Student Support Systems (50)

Sl. No	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall Marks	Observations of Evaluator _s (Provide Justifications/ Reasons)
				Marks	Total		
9.1.	Mentoring system to help at individual level	5	Details of the mentoring system that has been developed for the students for various purposes and also state the efficacy of such system (5)			Overall Marks for 9.1	
9.2.	Feedback analysis and reward /corrective measures taken, if any	10	A. Methodology being followed for analysis of feedback and its effectiveness (5)			Overall Marks for 9.2	
			B. Record of corrective measures taken (5)				
9.3.	Feedback on facilities	5	Feedback collection, analysis and corrective action (5)			Overall Marks for 9.3	
9.4.	Self Learning	5	A. Scope for self-learning(2)			Overall Marks for 9.4	
			B. Self Learning facilities, materials for learning beyond syllabus, Webinars, Podcast, MOOCs etc. and demonstrate its effective utilization (3)				

9.5.	Career Guidance, Training, Placement	10	A.Availability of career guidance facilities (2)		Overall Marks for 9.5	
			B. Counseling for higher studies (GATE/GRE, GMAT, etc.) (2)			
			C. Pre-placement training (3)			
			D. Placement process and support (3)			
9.6.	Entrepreneurship Cell	5	A. Entrepreneurship initiatives (1)		Overall Marks for 9.6	
			B. Data on students benefitted (4)			
9.7.	Co-curricular and Extra-curricular Activities	10	A. Availability of sports and cultural facilities (3)		Overall Marks for 9.7	
			B. NCC, NSS and other clubs (3)			
			C. Annual students activities (4)			
Total of Criterion 9		50	Overall Marks for Criterion 9			

Criterion 10: Governance, Institutional Support and Financial Resources (120)

Sl. No	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall Marks	Observations of Evaluator's (Provide Justifications/ Reasons)
				Marks	Total		
10.1.	Organization, Governance and Transparency	40				Overall Marks for 10.1	
10.1.1.	State the Vision and Mission of the Institution	5	A. Availability of the Vision & Mission statements of the Institute (2)				
			B. Appropriateness/Relevance of the Statements (3)				
10.1.2.	Governing body, administrative setup, functions of various bodies, service rules procedures, recruitment and promotional policies	10	A. Governing Body Composition, senate, and all other academic and administrative bodies; their memberships, functions and responsibilities; frequency of the meetings; participation details of external members and attendance therein (4)				
			B. The published service rules, policies and procedures with year of publication (3)				
			C. Minutes of the meetings and action-taken reports (3)				

10.1.3.	Decentralisation in working and grievance redressal mechanism	10	A. List the names of the faculty members who have been delegated powers for taking administrative decisions (1)			Overall Marks for 10.1	
			B. Specify the mechanism and composition of grievance redressal cell (2)				
			C. Action taken report as per 'B' above (7)				
10.1.4.	Delegation of financial powers	10	A. Financial powers delegated to the Principal, Heads of Departments and relevant in-charges (3)			Overall Marks for 10.1	
			B. Demonstrate the utilization of financial powers for each of the assessment years (7)				
10.1.5.	Transparency and availability of correct/unambiguous information in public domain	5	A. Information on the policies, rules, processes is to be made available on web site (2)			Overall Marks for 10.1	
			B. Dissemination of the information about student, faculty and staff (3)				
10.2.	Budget Allocation, Utilization, and Public Accounting at Institute level	30	Expenditure per student:			Overall Marks for 10.2	
			Fee per student:				
10.2.1.	Adequacy of Budget allocation	10	A. Quantum of budget allocation for three years (5)			Overall Marks for 10.2	
			B. Justification of budget allocated for three years (5)				
10.2.2.	Utilization of allocated funds	15	Budget utilization for three years (15)			Overall Marks for 10.2	
10.2.3.	Availability of the audited statements on the institute's website	5	Availability of Audited statements on website (5)				
10.3.	Program Specific Budget Allocation, Utilization	30	To be evaluated in consultation with the Program Experts			Overall Marks for 10.3	
10.3.1.	Adequacy of budget allocation	10	A. Quantum of budget allocation for three years (5)				
			B. Justification of budget allocated for three years (5)				
10.3.2.	Utilization of allocated funds	20	Budget utilization for three years (20)				

10.4	Library and Internet	20				Overall Marks for 10.4	
10.4.1.	Quality of learning resources (hard/soft)	10	A. Availability of relevant learning resources including e-resources and Digital Library (7)				
			B. Accessibility to students (3)				
10.4.2.	Internet	10	A. Available bandwidth (4)				
			B. Wi Fi availability (2)				
			C. Internet access in labs, classrooms, library and offices of all Departments (2)				
			D. Security mechanism (2)				
Total of Criterion 10		120	Overall Marks for Criterion 10				

Annexure IX

Part C

Declaration and Feedback (To be filled-in by the Chairperson)

Declaration Form

Name and Address of the Institution visited:

I do hereby declare that I don't have or didn't have a close or active association with the above institution in any of the following form:

1. I am neither employed currently nor was employed in the past as faculty, staff or Consultant by the institution;
2. I am neither engaged currently nor was engaged in the past in any discussion or negotiation of employment with the institution;
3. I have never attended the above institution as a student;
4. I have never received an honorary degree from the institution;
5. I have not guided institution for preparation or mock up exercise;
6. I do not own a membership in the institution's Board of Trustees/Advisory Board/Academic Advisory Board;
7. I am / was not a member of any committee of the Institution / Department / Program;
8. No close/family relative of mine is a student or employee of the institution;
9. I do not own a membership in the institution's Board of Trustees/Industry Advisory Board.

I hereby declare that I have no conflict of interest in the proposed NBA accreditation assignment for this institution and I will follow the NBA conflict of interest Policies. I shall abide by the code of conduct and will conduct myself in professional manner and uphold the dignity and esteem of the position bestowed upon me.

Name:

Signature:

Date:

**Feedback Form to be filled-in by the Chairperson about the
Institution and Team Members
(to be send to NBA)**

Purpose: (This form is designed to have a fair opinion about the team members who have assisted you during the visit. This will enable the NBA to improve its system and make it more effective. We thank you in advance for the time and effort you are investing in filling out this form.)

1. Program Evaluators

(i) Please comment on the evaluation methodology adopted by the Evaluators.

.....

(ii) Whether the Evaluator has tendered any advice to improve the system? If yes, please specify.

a. Name (s) of the Evaluator:

.....

b. Advice:

.....

(iii) Did each of the Evaluators were well prepared and filled-in the Pre-Visit Report with specific issues for which they wished to gather proper evidence, etc.?

.....

(iv) Whether the Evaluators were specific about the relevant topics related to the program? If no, please specify.

.....

(v) Whether the Evaluator interacted with students and faculty in groups or with students and faculty in private? If yes, please specify the name of the students/faculty.

.....

(vi) Please comment on the general behaviour and etiquette of the Evaluators during the visit.

.....

2. Institution

(i) Please comment on the general behaviour and etiquette of the Head of the Institution/other key officials.

.....

(ii) Please comment on the cooperation and coordination rendered by the institution.

.....

(iii) In case of any suspicious/unethical activity, kindly specify.

.....

Signature of the Chairperson

Feedback Form to be filled-in about the Service Provider

Purpose: (This form is designed to have a fair opinion about the Service Provider engaged by the NBA. This will enable the NBA to improve its system and make it more effective. We thank you in advance for the time and effort you are investing in filling out this form.)

1. Name of the Institution:

.....

2. Date (s) of visit:

.....

3. Name of the Service Provider:

.....

4. Kindly fill the following table:

Basis of Assessment	Rating
Customer Service	
Travel Management	
Consulting Services	
Lodging Requirements	
Travel Documentation	
Overall Experience	
Signature	

(Kindly rate on scale of 1 to 3, 1 for Excellent, 2 for Satisfactory and 3 for Poor services)

Specific Comments, if Any

Thank you for your feedback!

Annexure X

Part A

Evaluator's Visit Report

Undergraduate Engineering Program TIER-II

Name of the Institution

.....

Name of the Program

.....

Visit Dates

.....

Program Evaluator Summary

Overview

The Expert team of National Board of Accreditation (NBA) conducted a three day accreditation visit from _____ to _____ *<<name of institution>>* _____, to evaluate UG Engineering program *<<name of the program>>* _____.

Pre visit meeting of the expert tea was held on at _____ to exchange the respective findings with the evaluation team members, based on review of Self Assessment Report (SAR) and the previsit evaluation reports.

During the visit, the visiting team met with Head of the Institution/Dean _____. The briefing on the institution was given by _____ and on the program was given by the *(Name of the respective Head of the Department/Program Coordinator)*. The respective program evaluators also visited the various facilities of the program. Apart from comprehensive review of documental evidences pertaining to various accreditation criteria, the visiting team also held meeting and discussions with the following stakeholders (kindly tick).

Faculty	<input type="checkbox"/>	Alumni	<input type="checkbox"/>
Employers	<input type="checkbox"/>	Parents	<input type="checkbox"/>
Staff members	<input type="checkbox"/>	Students	<input type="checkbox"/>

The Program Evaluation Team found that (general findings about the program to be mentioned)

Program Details

Name of the Program:						
Year of Commencement						
Student	Year	Sanctioned Intake	Actual Admitted (without Lateral Entry)			
	CAY (20__ - 20__)					
	CAY m1 (20__ - 20__)					
	CAY m2 (20__ - 20__)					
	Total Students in the Programme 1 st to Final Year					
	Average of CAY, CAYm1 and CAYm2					
Faculty (Attach a Copy of faculty list compared with Time Table)	Regular		CAY	CAYm1	CAYm2	
		Professor				
		Professor				
	Contractual	Assistant professor				
		Professor				
		Professor				
	No. of Ph.D. available in the dept.	Assistant professor				
		Student - Faculty Ratio (average of CAY, CAYm1 and CAYm2 (Refer criterion-5.1))				
	Previous accreditation (if any)	First accreditation	No. of years accredited for			
With effect from						
Previous accreditation		No. of years accredited for				
		With effect from				

CAY: Current Academic Year

CAYm1: Current Academic Year minus 1 = Current Assessment year

CAYm2: Current Academic Year minus 2 = Current Assessment year minus 1

Note: *All the faculty whether regular or contractual (except Part-Time), will be considered. The contractual faculty (doing away with the terminology of visiting/adjunct faculty, whatsoever) who have taught for 2 consecutive semesters in the corresponding academic year on full time basis shall be considered for the purpose of calculation in the Faculty Student Ratio.*

However, following will be ensured in case of contractual faculty:

- 1. Shall have the AICTE prescribed qualifications and experience.*
- 2. Shall be appointed on full time basis and worked for consecutive two semesters during the particular academic year under consideration.*
- 3. Should have gone through an appropriate process of selection and the records of the same shall be made available to the visiting team during NBA visit.*

Explicit Observations about the Program

(Please use additional sheets, if necessary, to elaborate)

Program Title.....

Strengths:

- 1. _____

- 2. _____

- 3. _____

Weakness/Areas of improvement:

- 1. _____

- 2. _____

- 3. _____

Deficiencies:

- 1. _____

- 2. _____

- 3. _____

Other Observations, if any:

- 1. _____

- 2. _____

- 3. _____

Information for Evaluation

Award of Accreditation (TIER II (UG))

- 1. Accreditation for Six years will be accorded to a program on fulfilment of the following requirements:**
 - i. Program should score a minimum of 750 points in aggregate out of 1000 points with minimum score of 60 per cent in mandatory fields (i.e. criteria 4 to 6)
 - ii. Number of available Ph.D. in the department should be greater than or equal to 30 per cent of the required number of faculty, averaged over two academic years i.e. Current Academic Year (CAY) and Current Academic Year Minus One (CAYM1).
 - iii. The admissions in the UG program should be more than or equal to 50 per cent, averaged over three academic years (including lateral entry), i.e., Current Academic Year minus One (CAYm1), Current Academic Year minus Two (CAYm2) and Current Academic Year minus Three (CAYM3).
 - iv. Faculty Student Ratio in the department should be less than or equal to 1:20, averaged over three academic years i.e. Current Academic Year (CAY), Current Academic Year Minus One (CAYM1) and Current Academic Year Minus Two (CAYM2).
 - v. At least 2 Professors or 1 Professor and 1 Associate Professor on regular basis with Ph.D. degree should be available in the respective department for two academic years i.e. Current Academic Year (CAY) and Current Academic Year Minus One (CAYM1).
 - vi. HoD of the program under consideration possesses Ph.D. degree in the Current Academic Year (CAY).
- 2. Accreditation for Three years will be accorded to a program on fulfilment of the following requirements:**
 - i. Program should score a minimum of 600 points with atleast 40 per cent marks in Criterion V (Faculty Information and Contributions).
 - ii. The admissions in the UG program should be more than or equal to 50 per cent, averaged over three academic years (including lateral entry), i.e., Current Academic Year minus One (CAYm1), Current Academic Year minus Two (CAYm2) and Current Academic Year minus Three (CAYM3).
 - iii. At least one Professor or one Associate Professor on regular basis with Ph.D. degree is available in the respective department for two academic years i.e. Current Academic Year (CAY) and Current Academic Year Minus One (CAYM1).
 - iv. The faculty student ratio in the department under consideration should be less than or equal to 1:25, averaged over three academic years i.e. Current Academic Year (CAY), Current Academic Year Minus One (CAYM1) and Current Academic Year Minus Two (CAYM2).
 - v. Number of Ph.D. available in the department should be greater than or equal to 10 per cent of the required number of faculty, averaged over two academic years i.e. Current Academic Year (CAY) and Current Academic Year Minus One (CAYM1).

No Accreditation of the program

If the program fails to meet the criteria for award of accreditation for three years, it is awarded "Not Accredited" Status

Department/Programme Specific Criteria

Sl. No.	Criteria	Max. Marks	Marks Awarded	Remarks
1.	Vision, Mission and Program Educational Objectives	60		
2.	Program Curriculum and Teaching-Learning Processes	120		
3.	Course Outcomes and Program Outcomes	120		
4.	Students' Performance	150		
5.	Faculty Information and Contributions	200		
6.	Facilities and Technical Support	80		
7.	Continuous Improvement	50		
Total		780		

Signature
(Program Evaluator 1)

Signature
(Program Evaluator 2)

I agree with the observations of the Program Evaluators on each criterion.

Or
I agree with most of the observations of the Program Evaluators. However, I have following comments to make on certain criteria:

Criteria	Comments

Signature
(Chairperson)

Annexure X

Part- B

Part B-Program Assessment Worksheet
Program Level Criteria - To be Assessed by Evaluator

Name of the Institution

Name of the Program

Criterion 1: Vision, Mission and Program Educational Objectives (60)							
Sl. No.	Sub Criteria	Max. Marks	Evaluation Guidelines (Marks)	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/Reasons)
				Marks	Total		
1.1	State the Vision and Mission of the Department and Institute	5	A. Availability of statements of the Departments (1)			Overall Marks for 1.1	
			B. Appropriateness/Relevance of the Statements (2)				
			C. Consistency of the Department statements with the Institute statements (2)				
1.2	State the Program Educational Objectives (PEOs)	5	Program Educational Objectives Appropriateness (3 to 5) (5)			Overall Marks for 1.2	
1.3	Indicate where and how the Vision, Mission and PEOs are published and disseminated among stakeholders	10	A. Adequacy in respect of publication & dissemination (2)			Overall Marks for 1.3	
			B. Process of dissemination among stakeholders (2)				
			C. Extent of awareness of Vision, Mission & PEOs among the stakeholder (6)				
1.4	State the process for defining the Vision and Mission of the Department, and PEOs of the program	25	A. Description of process for defining the Vision, Mission of the Department (10)			Overall Marks for 1.4	
			B. Description of process for defining the PEOs of the program (15)				

1.5.	Establish consistency of PEOs with Mission of the Department	15	A. Preparation of a matrix of PEOs and elements of Mission statement (5)			Overall Marks for 1.5	
			B. Consistency/justification of co-relation parameters of the above matrix (10)				
Total of Criterion 1		60	Overall Marks for Criterion 1:				

Criterion 2: Program Curriculum and Teaching – Learning Processes (120)							
Sl. No.	Sub Criteria	Max. Marks	Evaluation Guidelines (Marks)	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/Reasons)
				Marks	Total		
2.1.	Program Curriculum	20					
2.1.1.	State the process used to identify extent of compliance of the University curriculum for attaining the Program Outcomes (POs) & Program Specific Outcomes (PSOs),	10	A. Process used to identify extent of compliance of University curriculum for attaining POs & PSOs (6)			Overall Marks for 2.1	
			B. List the curricular gaps for the attainment of defined POs & PSOs (4)				
2.1.2.	State the delivery details of the content beyond the syllabus for the attainment of POs & PSOs	10	A. Steps taken to get identified gaps included in the curriculum.(letter to university/BOS) (2)				
			B. Delivery details of content beyond syllabus (5)				
			C. Mapping of content beyond syllabus with the POs & PSOs (3)				

2.2.	Teaching-Learning Processes	100				
2.2.1.	Describe the Process followed to improve quality of Teaching Learning	25	A. Adherence to Academic Calendar (3)			Overall Marks for 2.2
			B. Use of various instructional methods and pedagogical initiatives (3)			
			C. Methodologies to support weak students and encourage bright students (4)			
			D. Quality of classroom teaching (Observation in a Class) (3)			
			E. Conduct of experiments (Observation in Lab)(3)			
			F. Continuous Assessment in the laboratory (3)			
			G. Student feedback on teaching learning process and actions taken (6)			
2.2.2.	Quality of internal semester Question papers, assignments and Evaluation	20	A. Process for internal semester question paper setting, evaluation and effective process implementation (5)			
			B. Process to ensure questions from outcomes/learning levels perspective (5)			
			C. Evidence of COs coverage in class test / mid-term tests (5)			
			D. Quality of Assignment and its relevance to COs (5)			
2.2.3	Quality of student projects	25	A. Identification of projects and allocation methodology to Faculty (3)			
			B. Types and relevance of the projects and their contribution towards attainment of POs and PSOs (5)			
			C. Process for monitoring and evaluation (5)			

			D. Process to assess individual and team performance(5)				
			E. Quality of completed projects/working prototypes (5)				
			F. Evidences of papers published /Awards received by projects etc. (2)				
2.2.4.	Initiatives related to industry interaction	15	A. Industry supported laboratories (5)				
			B. Industry involvement in the program design and partial delivery of any regular courses for students (5)				
			C. Impact analysis of industry institute interaction and actions taken thereof (5)				
2.2.5	Initiatives related to industry	15	A. Industrial training/tours for students (3)				
			B. Industrial /internship /summer training of more than two weeks and post training Assessment (4)				
			C. Impact analysis of industrial training (4)				
			D. Student feedback on initiative (4)				
Total of Criterion 2		120	Overall Marks for Criterion 2:				

Criterion 3: Course Outcomes and Program Outcomes (120)

Sl. No.	Sub Criteria	Max. Marks	Evaluation Guidelines (Marks)	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total		
3.1.	Establish the correlation between the courses and the POs & PSOs	20					

3.1.1.	Course Outcomes	5	Evidence of COs being defined for every course (5)			Overall Marks for 3.1	
3.1.2	CO-PO/PSOs matrices of courses selected in 3.1.1 (six matrices)	5	Explanation of table to be ascertained (5)				
3.1.3	Program level Course-PO/PSOs matrix of ALL courses including first year courses	10	Explanation of tables to be ascertained (10)				
3.2	Attainment of Course Outcomes	50					
3.2.1	Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based	10	A. List of assessment processes (2)			Overall Marks for 3.2	
			B. The quality /relevance of assessment processes & tools used (8)				
3.2.2	Record the attainment of Course Outcomes of all courses with respect to set attainment levels	40	Verify the attainment levels as per the benchmark set for all courses (40)				
3.3	Attainment of Program Outcomes and Program Specific Outcomes	50					

3.3.1.	Describe assessment tools and processes used for assessing the attainment of each of the POs & PSOs	10	A. List of assessment tools & processes (5)			Overall Marks for 3.3		
			B. The quality/relevance of assessment tools/processes used (5)					
3.3.2.	Provide results of evaluation of each PO & PSO	40	A. Verification of documents, results and level of attainment of each PO/PSO (24)					
			B. Overall levels of attainment (16)					
Total of Criterion 3		120	Overall Marks for Criterion 3:					

Criterion 4: Students' Performance (150)							
Sl. No.	Sub Criteria	Max. Marks	Evaluation Guidelines (Marks)	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/Reasons)
				Marks	Total		
4.1.	Enrolment Ratio (20)	20	A. $\geq 90\%$ students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year (20)			Overall Marks for 4.1	
			B. $\geq 80\%$ students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year (18)				
			C. $\geq 70\%$ students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year (16)				
			D. $\geq 60\%$ students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year (14)				

			F. Otherwise '0'.				
4.2	Success Rate in the stipulated period of the program	40					
4.2.1.	Success rate without backlogs in any Semester/year of study Without Backlog means no compartment or failures in any semester/year of study	25	SI = (Number of students who graduated from the program without backlog)/(Number of students admitted in the first year of that batch and actually admitted in 2nd year via lateral entry and separate division, if applicable) Average SI = Mean of success index (SI) for past three batches Success rate without backlogs in any year of study = 25 × Average SI			Overall Marks for 4.2	Mention Numbers
4.2.2.	Success rate in stipulated period (actual duration of the program) [Total of with backlog + without backlog]	15	SI = (Number of students who graduated from the program in the stipulated period of course duration)/(Number of students admitted in the first year of that batch and actually admitted in 2nd year via lateral entry and separate division, if applicable) Average SI = mean of success index (SI) for past three batches Success rate = 15 × Average SI				Mention Numbers
4.3.	Academic Performance in Third Year	15	Academic Performance = 1.5 * Average API (Academic Performance Index) API = ((Mean of 3rd Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Third Year/10)) × (successful students/ number of students appeared in the examination)			Overall Marks for 4.3	Mention Numbers

4.4	Academic Performance in Second Year	15	Academic Performance Level = $1.5 * \text{Average API (Academic Performance Index)}$ API = ((Mean of 2nd Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful student sin Second Year/10)) x (successful students/number of students appeared in the examination)			Overall Marks for 4.4	Mention Numbers
4.5.	Placement, Higher studies and Entrepreneurship	40	Assessment Points = $40 \times \text{average of three years of } [(x + y + z)/N]$ where, x = Number of students placed in companies or Government sector through on/off campus recruitment, y = Number of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National level tests, GRE, GMAT etc.), z = No. of students turned entrepreneur in engineering/technology N = Total number of final year students			Overall Marks for 4.5	Mention Numbers along with the calculation
4.6.	Professional Activities	20					
4.6.1.	Professional societies/chapters and organizing engineering events	5	A. Availability & activities of professional societies/chapters(3) B. Number, quality of engineering events (organized at institute, Level- Institute/State/National/ International) (2)			Overall Marks for 4.6	
4.6.2.	Publication of technical magazines, newsletters, etc.	5	A. Quality & Relevance of the contents and Print Material (3) B. Participation of Students from the program (2)				

4.6.3.	Participation in inter-institute events by students of the program of study (at other institutions)	10	A. Events within the state (2)			
			B. Events outside the state (3)			
			C. Prizes/awards received in such events (5)			
Total of Criterion 4		150	Overall Marks for Criterion 4:			

Criterion 5: Faculty Information and Contributions (200)							
Sl. No.	Sub Criteria	Max. Marks	Evaluation Guidelines (Marks)	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/Reasons)
				Marks	Total		
5.1.	Student-Faculty Ratio (SFR)	20	<p>Marks to be given proportionally from a maximum of 20 to a minimum of 10 for average SFR between 15:1 to 25:1, and zero for average SFR higher than 25:1. Marks distribution is given as below:</p> <p>< = 15 - 20 Marks < = 17 - 18 Marks < = 19 - 16 Marks < = 21 - 14 Marks < = 23 - 12 Marks < = 25 - 10 Marks > 25 - 0 Marks</p> <p>Note: All the faculty whether regular or contractual (except Part-Time), will be considered. The contractual faculty (doing away with the terminology of visiting/adjunct faculty, whatsoever) who have taught for 2 consecutive semesters in the corresponding academic year on full time basis shall be considered for the purpose of calculation in the Faculty Student Ratio. However, following will be ensured in case of contractual faculty:</p> <ol style="list-style-type: none"> 1. Shall have the AICTE prescribed qualifications and experience. 2. Shall be appointed on full time basis and worked for consecutive two semesters during the particular academic year under consideration. 3. Should have gone through an appropriate process of selection and the records of the same shall be made available to the visiting team during NBA visit. 			Overall Marks for 5.1	Mention numbers

5.2.	Faculty Cadre Proportion	25	<p>Cadre Proportion Marks =</p> $\left[\frac{AF1}{RF1} + \left(\frac{AF2 \times 0.6}{RF2} \right) + \left(\frac{AF3 \times 0.4}{RF3} \right) \right] \times 12.5$ <ul style="list-style-type: none"> • If AF1 = AF2 = 0 then zero marks • Maximum marks to be limited if it exceeds 25 (Refer calculation in SAR) 			Overall Marks for 5.2	Mention numbers
5.3.	Faculty Qualification	25	<p>FQ = 2.5 x [(10X + 4Y)/F] where, X is no. of faculty with Ph.D., Y is no. of faculty with M.Tech, F is no. of faculty required to comply 1:20 Faculty Student ratio (no. of faculty and no. of students required to be calculated as per 5.1)</p>			Overall Marks for 5.3	Mention numbers
5.4.	Faculty Retention	25	A. ≥ 90% of required Faculties retained during the period of assessment keeping CAYm2 as base year (25)			Overall Marks for 5.4	
			B. ≥ 75% of required Faculties retained during the period of assessment keeping CAYm2 as base year (20)				
			C. ≥ 60% of required Faculties retained during the period of assessment keeping CAYm2 as base year (15)				
			D. ≥ 50% of required Faculties retained during the period of assessment keeping CAYm2 as base year (10)				
			E. Otherwise (0)				
5.5.	Innovations by the Faculty in Teaching and Learning	20	A. The work must be made available on Institute Website (4)			Overall Marks for 5.5	
			B. The work must be available for peer review and critique (4)				

			C. The work must be reproducible and developed further by other scholars (2)				
			D. Statement of clear goals, use of appropriate methods, significance of results, effective presentation and reflective critique (10)				
5.6.	Faculty as participants in Faculty development /training activities /STTPs	15	For each year: Assessment = $3 \times \text{Sum} / 0.5\text{RF}$ Average assessment over last three years starting from CAYm1 (Marks limited to 15)			Overall Marks for 5.6	Mention numbers
5.7.	Research and Development	30					
5.7.1.	Academic Research	10	A. Number of quality publications in refereed/SCI Journals, citations, Books/Book Chapters etc. (6)			Overall Marks for 5.7	Mention numbers
			B. PhD guided /PhD awarded during the assessment period while working in the institute (4)				
5.7.2.	Sponsored Research	5	Funded research from outside; Cumulative CAYm1, CAYm2 and CAYm3: Amount > 20 Lakh – 5 Marks Amount > = 16 Lakh and < = 20 Lakh – 4 Marks Amount > = 12 Lakh and < 16 Lakh – 3 Marks Amount > = 8 Lakh and < 12 Lakh – 2 Marks Amount > = 4 Lakh and < 8 Lakh – 1 Mark Amount < 4 Lakh – 0 Mark				
5.7.3.	Development Activities	10	A. Product Development B. Research laboratories C. Instructional materials D. Working models/charts/monograms etc.				

5.7.4.	Consultancy (From Industry)	5	Consultancy; Cumulative CAYm1, CAYm2 and CAYm3: Amount > 10 Lakh – 5 Marks Amount > = 8 Lakh and < = 10 Lakh – 4 Marks Amount > = 6 Lakh and < 8 Lakh – 3 Marks Amount > = 4 Lakh and < 6 Lakh – 2 Marks Amount > = 2 Lakh and < 4 Lakh – 1 Mark				Mention numbers
5.8.	Faculty Performance Appraisal and Development System (FPADS)	30	A. A well defined performance appraisal and development system instituted for all the assessment years (10)			Overall Marks for 5.8	
			B. Its implementation and effectiveness (20)				
5.9.	Visiting/Adjunct/Emeritus Faculty etc.	10	Provision of Visiting /Adjunct/Emeritus faculty etc.(1)			Overall Marks for 5.9	
			Minimum 50 hours per year interaction (Per 15 obtain 3 marks 3x3 = 9) (9)				
Total of Criterion 5		200	Overall Marks for Criterion 5:				

Criterion 6: Facilities and Technical Support (80)

Sl. No.	Sub Criteria	Max. Marks	Evaluation Guidelines (Marks)	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/Reasons)
				Marks	Total		
6.1.	Adequate and well equipped laboratories, and technical manpower	30	A. Adequate well-equipped laboratories to run all the program-specific curriculum (20)			Overall Marks for 6.1	
			B. Availability of adequate technical supporting staff (5)				
			C. Availability of qualified technical supporting staff (5)				

6.2.	Additional Facilities created for improving the quality of learning experience in Laboratories	25	A. Availability and relevance of additional facilities (10)			Overall Marks for 6.2	
			B. Facilities utilization and effectiveness (10)				
			C. Relevance to POs and PSOs (5)				
6.3	Laboratories: Maintenance and overall ambience	10	Maintenance and overall ambience (10)			Overall Marks for 6.3	
6.4	Project laboratory	5	Facilities & Utilization (5)			Overall Marks for 6.4	
6.5	Safety measures in laboratories	10	Safety measures in laboratories (10)			Overall Marks for 6.5	
Total of Criterion 6		80	Marks for Criterion 6:				

Criterion 7: Continuous Improvement (50)							
Sl. No.	Sub Criteria	Max. Marks	Evaluation Guidelines (Marks)	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total		
7.1.	Actions taken based on the results of evaluation of each of the POs and PSOs	20	A. Documentation of POs and PSOs attainment levels (5)			Overall Marks for 7.1	
			B. Identification of gaps/shortfalls (5)				
			C. Plan of action to bridge the gap and its Implementation (10)				
7.2.	Academic Audit and actions taken during the period of Assessment	10	Assessment shall be based on conduct and actions taken in relation to continuous improvement (10)			Overall Marks for 7.2	

7.3.	Improvement in Placement, Higher Studies and Entrepreneurship	10	A. Improvement in Placements numbers, quality, core hiring industry and pay packages (5)		Overall Marks for 7.2	
			B. Improvement in Higher Studies admissions (3)			
			C. Improvement in number of Entrepreneurs (2)			
7.4	Improvement in the quality of students admitted to the program	10	Assessment is based on improvement in terms of ranks/score in qualifying state level/national level entrance tests, percentage Physics, Chemistry and Mathematics marks in 12th Standard and percentage marks of the lateral entry students		Overall Marks for 7.4	
Total of Criterion 7		50	Marks for Criterion 7:			

Annexure X

Part C

Part C Declaration and Feedback

(To be filled by Evaluators)

Declaration Form

Name and Address of the Institution visited:

I hereby declare that I am /was not actively associated with the above mentioned institution in any of the following form :-

- 1 I am neither employed currently nor was employed in the past as faculty, staff or Consultant by the institution;
- 2 I am neither engaged currently nor was engaged in the past in any discussion or negotiation of employment with the institution;
- 3 I have never attended the above institution as a student;
- 4 I have never received an honorary degree from the institution;
- 5 No close/family relative of mine is a student or employee of the institution;
- 6 I do not own a membership in the institution's Board of Trustees/Advisory Board /Academic Advisory Board;
- 7 I have not gone on mock visit to the said institute
- 8 I have not guided institution for preparation or mock up exercise.
- 9 I am / was not a member of any committee of the Institution/Department/Program.

I hereby declare that I have no conflict of interest in the proposed NBA accreditation assignment for this institution and I will abide by the NBA conflict of interest policy . I shall abide by the code of conduct and will conduct myself in professional manner and uphold the dignity and esteem of the position bestowed upon me.

Name:

Signature :

Date :

Feedback Form to be filled by the Evaluator about the Institution, Co-evaluator and Chairperson

**(Directly to be send only through e-mail to NBA (ID: feedback.nba@nbaind.org)
Not to be handed over to Chairman of visiting team)**

Purpose- This form is designed to have a fair opinion about the team members who have assisted you during the visit. This will enable the NBA to improve its system and make it more effective. We thank you in advance for the time and effort you are investing in filling out this form.
in filling out this form.

- 1. Please comment on the ability of the chairperson to resolve disputes, if any, between the evaluators.**

- 2. Whether the team chair had done his homework and was aware about the SAR?**

- 3. Did the pre-visit evening meeting evolve a clear methodology based on the homework done by each member of the team?**

- 4. Whether the chairperson was keen to find facts and verify evidences.**

- 5. Whether the chairperson has extended openness with the evaluators? If no, please specify.**

- 6. Please comment on the general behaviour and etiquette of the chairperson during the visit.**

- 7. Whether the co-evaluators seemed well prepared with their respective homework?**

- 8. Whether the team members for a program co-ordinate well with each other? If not, please elaborate.**

- 9. Please comment on the general behaviour and etiquette of the co-evaluator.**

- 10. Please comment on the cooperation rendered by the co-evaluator.**

- 11. Please comment on the general behaviour and etiquette of the Head of the Institution / other key officials.**

- 12. Please comment on the cooperation and coordination rendered by the institution.**

- 13. In case of any suspicious/unethical activity, kindly specify.**

Signature of the Evaluator

Feedback Form to be filled by all the visitors about Service Provider
(to be filled separately by each evaluator)

Purpose-This form is designed to have a fair opinion about the Service Provider hired by the NBA. This will enable the NBA to improve its system and make it more effective. We thank you in advance for the time and effort you are investing in filling out this form.

1. Name of the Institution:

2. Date (s) of visit:

3. Name of the Service Provider:

Kindly fill the following table:

Basis of Assessment	Rating
Customer Service	
Travel Management	
Consulting Services	
Lodging Requirements	
Travel Documentation	
Overall Experience	
Signature	

(Kindly rate on scale of 1 to 3:1 for excellent, 2 for satisfactory and 3 for Poor Service)

Specific Comments (If Any):

Thank you for your feedback!

Annexure XI

CERTIFICATE OF PARTICIPATION

(To be Filled-in by the Chairperson of the Visiting Team)

This is to certify that the following Experts Volunteers has visited the Institution _____ on date _____ for the NBA Accreditation visit as per details given below:

Name of the Experts	Discipline	Date	Arrival Time	Departure Time	Used NBA Transport Yes/No

Date:

(Name & Signature of Chairperson of Visiting Team)

Annexure XII

CERTIFICATE**(To be filled-in by the Institution)**

I, _____ (Name and designation of the Head of the institution)
hereby certify that no gifts in cash or kind and /or souvenirs were offered by
_____ (Name of the institution) to the members of the Expert who
visited the Institution from _____ to _____ (visit dates).

**Signatures & Name of the
Head of the Institution with Seal**

Annexure XIII

Feedback Form to be filled in by the Institution

Regarding Accreditation Visit

Purpose

This form is designed to have a fair opinion of the team which has visited your institution. This will enable the NBA to improve its system and make it more effective. We thank you in advance for the time and effort you are investing in filling out this form.

1. Name of the Institution: _____
2. Programme(s)evaluated: _____
3. Date(s) of visit: _____
4. Name of Chairperson: _____
5. Names of Evaluators:

1. _____	2. _____	3. _____
4. _____	5. _____	6. _____
7. _____	8. _____	9. _____
10. _____	11. _____	12. _____
6. Please comment on the evaluation methodology adopted by the team during the visit.
7. Whether the evaluators have tendered any advice to improve the system? If yes, please specify.
 - i) Name of the Evaluator:
 - ii) Advice:

8. Whether any of the evaluators were specific about the relevant topics related to the programme? If no, please specify.
9. Whether the evaluators interacted with students and faculty in groups or with students and faculty in private? If yes, please specify the name of the students / faculty.
10. Whether the Head of the Institution or any representative of the management was also present during the interaction? If yes, please specify.
 - i) Name of the Representative:
 - ii) Observation of the Representative about Interaction:
11. Whether Evaluators have been facilitated by the institution for outdoor activity? If yes, please specify.
 - i) On whose insistence:
 - ii) What activity:
12. Whether the exit meeting met the purpose i.e., to share the Visiting Team's perceptions and general observations about the institution and programmes.
13. Specify the participants of the Exit Meeting.
14. Please comment on the general behavior of the Visiting Team (Chairperson and Evaluators) during the visit? Whether hospitality was extended to the Visiting Team? If yes, please specify the participants and the kind of hospitality offered.

Signature of the Head of the Institution

Thank you for your feedback!

National Board of Accreditation

NBCC Place, 4th Floor East Tower, Bhisham Pitamah Marg, Pragati Vihar, New Delhi 110003

Phone: +91(11)24360620-22

Fax: +91(11) 43084903

E-mail: membersecretary@nbaind.org; Website: www.nbaind.org