

SELF ASSESSMENT REPORT (SAR) FORMAT

UNDERGRADUATE ENGINEERING PROGRAMS (TIER-I)

FIRST TIME ACCREDITATION

(Applicable for all the programs, except those granted full accreditation for 5 years as per Jan 2013 Manual)

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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:

Institute of National Importance	
University	
Deemed University	
Autonomous	
Any other (Please specify)	

Note:

- 1. In case of Autonomous and Deemed University, mention the year of grant of status by the authority.
- In case of University Constituent Institution, please indicate the academic autonomy status of the Institution as defined in 12th Plan guidelines of UGC. Institute should apply for Tier 1 only when fully academically autonomous.

5. Ownership Status:

Central Government	
State Government	
Government Aided	
Self - Financing	
Trust	
Society	
Section 25 Company	
Any Other (Please specify)	

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:

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

Table A.7

* Write applicable one:

Applying first time

- Granted provisional accreditation for two/three years for the period (specify period)
- Granted accreditation for 5/6 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- Withdrawn (specify visit dates, year)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

Note: Add rows as needed.

8. Programs to be considered for Accreditation vide this application

S. No.	Program Name
1	
N.	

Table A.8

9. Total number of employees:

A. Regular Employees (Faculty and Staff):

Items		CA	Y	CAY	(m1	CAY	(m2
		Min	Max	Min	Max	Min	Max
	м						
Faculty in Engineering	F						

Faculty in Math's, Science &	м			
Humanities teaching in Engineering Programs	F			
	м			
Non-teaching staff	F			

Table A.9a

Note: All the faculty whether regular or contractual (except part-time or hourly based), will be considered. The contractual faculty appointed with any terminology whatsoever, who have taught for 2 consecutive semesters with or without break between the 2 semesters in 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.
- Shall be appointed on full time basis and worked for consecutive two semesters with or without break between the 2 semesters during the particular academic year under consideration.
- 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 Sta	aff): (Not covered in Table A):
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Items		CAY		CAY	/m1	CA	(m2
		Min	Max	Min	Max	Min	Max
Faculty in Engineering	м						
	F						
Faculty in Math's, Science &Humanities teaching in engineering Programs	м						
	F						
Non-teaching staff	М						
	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			
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Table A.10

(Instruction: The data may be categorized in tabular form separately for undergraduate, postgraduate engineering, another 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 _____

Criteria No.	Criteria	Mark/Weightage						
	Program Level Criteria							
1.	Vision, Mission and Program Educational Objectives	50						
2.	Program Curriculum and Teaching –Learning Processes	100						
3.	Course Outcomes and Program Outcomes	175						
4.	Students' Performance	100						
5.	Faculty Information and Contributions	200						
6.	Facilities and Technical Support	80						
7.	Continuous Improvement	75						
	Institute Level Criteria							
8.	First Year Academics	50						
9.	Student Support Systems	50						
10.	Governance, Institutional Support and Financial Resources	120						
	Total							

PART B: Program Level Criteria

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

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

(Here Institute Vision and Mission statements have been asked to ensure consistency with the department Vision and Mission statements; the assessment of the Institute 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 (15)

(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 (15)

(Articulate the process involved in defining the Vision and Mission of the department and PEOs of the program.)

1.5. Establish consistency of PEOs with Mission of the Department (10)

(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) *If there is no correlation, put* "-" *Note: Wherever the word* "*process*" *is used in this document its meaning is process formulation, notification to all the concerned, and implementation*

2.1. Program Curriculum (30)

2.1.1. State the process for designing the program curriculum (10)

(Describe the process that periodically documents and demonstrates how the program curriculum is evolved considering the POs and PSOs)

2.1.2. Structure of the Curriculum (5)

Courses	rse Course	Тс	Total Number of contact hours									
Course Code	Title	Lecture (L)	Tutorial (T)	Practical# (P)	Total Hours	Credits						
То	tal											

Table B.2.1.2

Seminars, project works may be considered as practical

2.1.3. State the components of the curriculum (5)

Program curriculum grouping based on course components

Course Component	Curriculum Content (% of total number of credits of the program)	Total number of contact hours	Total number of credits
Basic Sciences			
Engineering Sciences			
Humanities and Social Sciences			
Program Core			
Program Electives			
Open Electives			
Project(s)			
Internships/Seminars			
Any other (Please specify)			
Total number of Cred	its		

2.1.4. State the process used to identify extent of compliance of the curriculum for attaining the Program Outcomes and Program Specific Outcomes as mentioned in Annexure I (10)

(State the process details)

2.2. Teaching-Learning Processes (70)

2.2.1. Describe Processes followed to improve quality of Teaching & Learning (15)

(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 end semester examination, internal semester question papers, assignments and evaluation (15)

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

2.2.3. Quality of student projects (20)

(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 (10)

(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 (10)

(Mention the initiatives, implementation details and impact analysis)

CRITERION 3	Course Outcomes and Program Outcomes	175

3.1. Establish the correlation between the courses and the Program Outcomes (POs) & Program Specific Outcomes (25)

- NBA defined Program Outcomes as mentioned in Annexure I and Program Specific Outcomes as defined by the Program. Six to ten matrices of core courses are to be mentioned with at least one per semester.
- Select core courses to demonstrate the mapping/correlation with all POs and PSOs.
- Number of Outcomes for a Course is expected to be around 6.

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101												
C202												
C303												
C4												

Program Articulation Matrix

Table B.3.1a

Course Articulation Matrix

со	Statement	P01	PO2	PO3	PO4	P05	P06	P07	P08	PO9	P010	P011	P012
C202.1													
C202.2													
C202.n													
(2202												
<u></u>					Tabla	R 3 11							

Table B.3.1b

Add and delete rows for Course Outcomes as needed

Note:

- 1. Enter correlation levels 1, 2 or 3 as defined below:
 - 1: Slight (Low)
- 2: Moderate (Medium)

If there is no correlation, put "-"

- 2. Add more columns for PSOs if any
- 3. The table 3.1 can be prepared in landscape mode if required.

3.2. Attainment of Course Outcomes (75)

3.2.1. Describe the assessment tools and processes used to gather the data upon which the evaluation of Course Outcome is based (10)

Describe different assessment tools (semester end examinations, mid-semester tests, laboratory examinations, student portfolios etc) to measure the student learning and hence attainment of course outcomes. (Student portfolio is a collection of artifacts that demonstrate skills, personal characteristics and accomplishments created by the student during study period.).

The process adopted to map the assessment questions, parameters of assessment rubrics etc. to the course outcomes to be explained with examples. The process of data collection from different assessment tools and the analysis of collected data to arrive at CO attainment levels need to be explained with examples

3.2.2. Record the attainment of Course Outcomes of all courses with respect to set attainment levels (65)

Program shall set Course Outcome attainment levels for all courses.

Measuring Course Outcomes attained through Semester End Examinations (SEE)

Target may be stated in terms of percentage of students getting equal or more than the target set by the Program in SEE for each CO.

Measuring CO attainment through Cumulative Internal Examinations (CIE)

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)

3.3. Attainment of Program Outcomes and Program Specific Outcomes (75)

3.3.1. Describe assessment tools and processes used for measuring the attainment of each Program Outcome 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)

3.3.2. Provide results of evaluation of each PO & PSO (65)

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

PO Attainment

Course	P01	P02	PO3	P04	P05	P06	P07	P08	PO9	PO10	P011	P012
C101												
C102												
C409												
Direct Attainment												

Table B.3.3.2a

Survey	P01	P02	PO3	P04	P05	P06	P07	P08	PO9	PO10	P011	P012
Survey 1												
Survey 2												
Survey 3												
Indirect Attainment												

Table B.3.3.2b

Course	P01	PO2	PO3	PO4	P05	PO6	P07	P08	PO9	PO10	P011	P012
Direct												
Attainment												
Indirect												
Attainment												
Final attainment												

Table B.3.3.2c

Note: Add more columns as needed for PSOs if any.

Mention the type of survey conducted and the location of its source

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/PSO.
- Indirect attainment level of a PO/PSO is determined based on the student exit surveys, employer surveys, co-curricular activities, extracurricular activities etc.

CRITERION 4	Students' Performance	100
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Item (Information to be provided umulatively for all the shifts vith explicit headings, vherever applicable)	CAY	CAYm1	CAYm2	CAYm3	CAYm4 (LYG)	CAYm5 (LYGm1)	CAYm6 (LYGm2)
Sanctioned intake of the program (<i>N</i>)							
Total number of students admitted in first year <i>minus</i> number of students migrated to other programs/institutions, plus no. of students migrated to this program (<i>N</i> 1)							
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 (<i>N</i> 1 + <i>N</i> 2 + N3)							

Table B.4a

CAY – Current Academic Year CAYm1- Current Academic Year minus1= Current Assessment Year CAYm2 - Current Academic Year minus2=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	<i>N</i> 1 + <i>N</i> 2 + N3 (As defined above)	Number of students who have successfully graduated Without backlogs in any semester/year of study (Without Backlog means no compartment			gs in any y npartment
		or failures in any semester/year of study) I Year II Year			
CAY					
CAYm1					

CAYm2			
CAYm3			
CAYm4 (LYG)			
CAYm5 (LYGm1)			
CAYm6 (LYGm2)			
	Tabla		

Table	B.4b
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Year of entry	N1 + N2 + N3 (As defined above)	Number of students who have successfully graduated in stipulated period of study) [Total of with Backlog + without Backlog]			
		I Year	II Year	III Year	IV Year
CAY					
CAYm1					
CAYm2					
CAYm3					
CAYm4 (LYG)					
CAYm5 (LYGm1)					
CAYm6 (LYGm2)					

Table B.4c.

Example			
Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	CAY (2016-17)	CAY <i>m</i> 1 (2015-16)	CAY <i>m</i> 2 (2014-15)
Sanctioned intake of the program (N)	120	120	120
Total number of students admitted in first year <i>minus</i> 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	14
Separate division (N3)	Nil	Nil	Nil
Total number of students admitted in the Program ($N1+N2+N3$)	100	124	124

Example:

Year of entry	N1 + N2 + N3 (As defined above)	Number of students who have successfully graduated without backlogs in any semester/year of study			gs in any
		I Year	II Year	III Year	IV Year
CAY (2016-17)	100(100+00+0)				
CAYm1 (2015-16)	124 (100+24+0)	60			
CAY <i>m2</i> (2014-15)	124 (110+14+0)	50	40+20		
CAY <i>m3</i> (2013-14)	134 (110+24+0)	90	80+20	79+10	
CAYm4 (LYG) (2012-13)	124 (100+24+0)	100	90+20	85+18	75+13
CAYm5 (LYGm1) (2011-12)	130 (120+10+0)	80	70+10	60+10	50+10
CAY <i>m</i> 6 (LYG <i>m</i> 2) (2010-11)	144 (120+24+0)	70	60+15	54+10	50+10

Example:

Year of entry	N1 + N2 + N3 (As defined above)	Number of students who have successfu graduated in stipulated period of study [Total of with Backlog + without Backlog]			
		I Year II Year III Ye			IV Year
CAY (2016-17)	100(100+00+0)				
CAYm1 (2015-16)	124 (100+24+0)	80			
CAY <i>m2</i> (2014-15)	124 (110+14+0)	98	78+22		
CAY <i>m3</i> (2013-14)	134 (110+24+0)	105	85+22	75+18	
CAY <i>m4</i> (LYG) (2012-13)	124 (100+24+0)	103	90+20	85+18	82+15
CAY <i>m5</i> (LYG <i>m</i> 1) (2011-12)	130 (120+10+0)	102	90+9	88+8	83+7
CAY <i>m</i> 6 (LYG <i>m</i> 2) (2010-11)	144 (120+24+0)	101	93+15	88+12	80+11

4.1. Enrolment Ratio (20)

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
Otherwise	0

Table B.4.1

Example			
Item (Students enrolled at the First Year Level on	CAY	CAYm1	CAYm2
average basis during the last three years starting from			
current academic years)			
Sanctioned intake of the program (N)	120	120	120
Total number of students admitted in first year minus	100	100	110
number of students migrated to other			
programs/institutions plus no. of students migrated to			
this program (N1)			
Enrolment Ratio	100/120=	100/120	110/120=
	83.33	=83.33	91.33
Average Enrolment Ratio	(83.33+	83.33+91.33)	/3=85.99

4.2. Success Rate in the stipulated period of the program (20)

4.2.1. Success rate without backlogs in any semester/year of study (15)

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 semester/year of study = 15 × Average SI

Item	Last Year of Graduate, LYG (CAYm4)	Last Year of Graduate minus 1, LYG <i>m</i> 1 (CAYm5)	Last Year of Graduate minus 2, LYG <i>m</i> 2 (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)			
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Table B.4.2.1

4.2.2. Success rate in stipulated period of study [Total of with backlog + without backlog] (5)

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

Item	Last Year of Graduate, LYG (CAYm4)	Last Year of Graduate minus 1, LYGm1 (CAYm5)	Last Year of Graduate minus 2, LYG <i>m</i> 2 (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 in the stipulated period			
Success Index (SI)			
Average Success Index			

Success rate = 5 × Average SI

Table B.4.2.2

Note: If 100% students clear without any backlog then also total marks scored will be 20 as both 4.2.1 & 4.2.2 will be applicable simultaneously

4.3. Academic Performance in Second Year (10)

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

API = ((Mean of 2^{nd} 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 2 nd 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)			
Total no. of successful students (Y)			
Total no. of students appeared in the examination (Z)			
$API = X^* (Y/Z)$	AP1	AP2	AP3

Table B.4.3

4.4. Placement, Higher Studies and Entrepreneurship (30)

Assessment Points = $30 \times average placement$

Item	CAYm1	CAYm2	CAY <i>m3</i>
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	Р3
Average placement= (P1 + P2 + P3)/3			
Assessment Points = $30 \times average placement$			

Table B.4.4

4.4a. Provide the placement data in the below mentioned format with the name of the program

and the assessment year:

Programs Name and Assessment Year								
S.no.	Name of the student placed	Enrollment Name of the no. Employer		Appointment letter reference no. with date				

Table B.4.4a

4.5. Professional Activities (20)

4.5.1. Professional societies/chapters and organizing engineering events (5)

(The Department shall provide relevant details)

4.5.2. Publication of technical magazines, newsletters, etc. (5)

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

4.5.3 Participation in inter-institute 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 institutes)

Faculty Information and Contributions

200

ber	Qu	alificatio	on	ltion		l as ssor	tion				lemic Rese		۲/N) is ("No")	
of the Faculty	Degree (highest degree)	University	Year of attaining higher qualification	Association with the Institution	Designation	Date on which Designated Professor/ Associate Profess	Date of Joining the Institution	Department	Specialization	Research Paper Publications	Ph.D. Guidance	Faculty Receiving Ph.D. during the Assessment Years	Currently Associated (Y/N) Date of Leaving (In case Currently Associated is ("	Nature of Association (Regular/Contract)

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.

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 Faculty Ratio (SFR) = 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.1+pm.2		
pm.2			
PGm		pm.1+pm.2	pm.1+pm.2
Total No. of Students in the Department (S)	UG1 + UG2 + +UGn + PG1 + PGm=S1	UG1 + UG2 + +UGn + PG1+ + PGm=S2	UG1 + UG2 + +UGn + PG1+ + PGm=S3
No. of Faculty in the Department (F)	F1	F2	F3
Student Faculty Ration (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:

/		· · · J · ·
< = 15	-	20 Marks
< = 17	-	18 Marks
< = 19	-	16 Marks
< = 21	-	14 Marks
< = 23	-	12 Marks
< = 25	-	10 Marks
> 25.0	-	0 Marks
a 1.		

- **Note:** All the faculty whether regular or contractual (except part-time or hourly based), will be considered. The contractual faculty appointed with any terminology whatsoever, who have taught for 2 consecutive semesters with or without break between the 2 semesters in 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.
 - Shall be appointed on full time basis and worked for consecutive two semesters with or without break between the 2 semesters during the particular academic year under consideration.
 - 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.

Year	САҮ	CAYm1	CAYm2				
u1.1	120(N)+12(N2)+0(N3)	120(N)+5(N2)+0(N3)	120(N)+0(N2)+0(N3)				
u1.2	120(N)+5(N2)+0(N3)	120(S)+0(N2)+0(N3)	120(S)+8(N2)+0(N3)				
u1.3	120(N)+0(N2)+0(N3)	120(S)+8(N2)+0(N3)	120(S)+12(N2)+0(N3)				
UG	377(360+17+0)	373(360+13+0)	380(360+20+0)				
p1.1	0	0	18				
p1.2	0	18	18				
PG	0	18	36				
Total No.of Students	377	391	416				
in Dept(S)							
No. of Faculty in	30	30	30				
Dept(F)							
Student Faculty Ratio	12.56	13.03	13.87				
(SFR)							
Average SFR	(12.56+13.03+13.87) /3=13.15.						

N, N2, N3 are being defined in Table B.4a

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	

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 = $1/9 \times 10^{10} \times 10$
- F2: Number of Associate Professors required = $2/9 \times 10^{10} \times 10^{10}$ Student-Faculty ratio based on no. of students (N) as per 5.1
- F3: Number of Assistant Professors required = $6/9 \times 10^{10}$ 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 P	rofessors	Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY						

CAYm1								
CAYm2								
Average Numbers	RF1=	AF1=	RF2=	AF2=	RF3=	AF3=		

• If AF1 = AF2= 0 then zero marks

Maximum marks to be limited if it exceeds 20

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) x 10 = 20

Case 2: AF1/RF1= 1; AF2/RF2 = 3/2; AF3/RF3 = 5/6; Cadre proportion marks = (1+0.9+0.3) x 10 = limited to 20

Case 3: AF1/RF1=0; AF2/RF2=1/2; AF3/RF3=8/6; Cadre proportion marks=(0+0.3+0.53)x10= 8.3

5.3. Faculty Qualification (20)

 $FQ = 2.0 \times [(10X + 4Y)/F)]$ 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 20:1 Faculty Student ratio (no. of faculty and no. of students required are to be calculated as per 5.1)

	x	Y	F	FQ = 2.0 x [(10X +4Y)/F)]
CAY				
CAYm1				
CAYm2				
Average Asses	sment			

5.4. Faculty Retention (10)

No. of faculty members in CAYm1= CAY=

Item	
(% of faculty retained during the period of assessment keeping CAYm2 as base year)	Marks
>= 90% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	10

>=75% of required Faculty members retained during the period of assessment keeping CAY $m2$ as base year	08
>= 60% of required Faculty members retained during the period of assessment keeping CAY $m2$ as base year	06
>= 50% of required Faculty members retained during the period of assessment keeping CAY $m2$ as base year	04
< 50% of required Faculty members retained during the period of assessment keeping CAY <i>m2</i> as base year	0

Table B.5.4

Example:

Item	CAY	CAYm1	
No of Faculty Retained	28	29	
Total No. of Required Faculty in CAYm2	33		
% of Faculty Retained	85	88	
Faculty Retained	86.	5%(88+85)/2	

5.5. Faculty competencies in correlation to Program Specific Criteria (10)

(List the program specific criteria and the competencies (specialization, research publications, course developments etc.,) of faculty to correlate the program specific criteria and competencies.)

5.6. Innovations by the Faculty in Teaching and Learning (10)

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.

5.7. 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

Max. 5 per Faculty				
CAYm1	CAYm2	CAYm3		
Average assessment over last three years (Marks limited to 15) =				
	CAYm1	CAYm1 CAYm2		

Table B.5.7

5.8. Research and Development (75)

5.8.1. Academic Research (20)

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.

5.8.2. Sponsored Research (20)

Funded research from outside: (Provide a list with Project Title, Funding Agency, Amount and Duration) Funding Amount (Cumulative during CAYm1, CAYm2 and CAYm3): Amount > 50 Lakh – 20 Marks, Amount > 40 and ≤ 50 Lakh – 15 Marks, Amount > 40 and ≤ 40 Lakh – 10 Marks, Amount > 15 and ≤ 30 Lakh – 5 Marks, Amount ≥ 15 and ≤ 30 Lakh – 5 Marks,

CAYm1					
SN	Project title		Funding name	agency	Amount
1					
2					
••					
		CAYm2			
1					
2					
••					
		CAYm3			
1					
2					
••					
	Total amount for past 3 years				

5.8.3. Development activities (15)

Provide details:

•Product Development

Research laboratories

•Instructional materials

•Working models/charts/monograms etc.

5.8.4. Consultancy (from Industry) (20)

(Provide a list with Project Title, Funding Agency, Amount and Duration) Funding Amount (Cumulative during CAYm1, CAYm2 and CAYm3): Amount >10 Lacs - 20 Marks, Amount ≤ 10 and ≥ 8 Lakh - 15 Marks, Amount < 8 and ≥ 6 Lakh - 10 Marks, Amount < 6 and ≥ 4 Lakh - 5 Marks, Amount < 4 and ≥ 2 Lakh - 2 Marks, Amount < 2 Lakh - 0 Mark

	CAYm1					
SN	Project title		Funding name	agency	Amount	
1						
2						
••						
	CAYm2					
1						

2				
	CAYm3			
1				
2				
	Total amount for past 3 years			

5.9. Faculty Performance Appraisal and Development System (FPADS) (10)

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 Institute. 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 (5)
- Its implementation and effectiveness (5)

5.10. 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 visiting/adjunct 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; 3marks x 3years= 9marks)

6.1 Adequate and well-equipped laboratories, and technical manpower (40)

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

Table B.6.1

6.2. Laboratories maintenance and overall ambiance (10)

(Self-Explanatory)

6.3. Safety measures in laboratories (10)

Sr. No.	Name of the Laboratory	Safety measures
1.		
Ν.		

Table B.6.3

6.4. Project laboratory (20)

(Mention facilities & Utilization)

7.1. Actions taken based on the results of evaluation of each of the COs, POs & PSOs (30)

Identify the areas of weaknesses in the program based on the analysis of evaluation of COs, POs & PSOs attainment levels. Measures identified and implemented to improve POs& PSOs attainment levels for the assessment year including curriculum intervention, pedagogical initiatives, support system improvements, etc.

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 (instructor/text book changed too has 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				
PO1: Stat	ement as ment	tioned in Annexure	I				
P01							
Action 1:							
Action N:							
PO2:State	ement as menti	ioned in Annexure	I				
PO2							
Action 1:							
Action N:	Action N:						

POs & PSOs Attainment Levels and Actions for improvement – CAYm1 only

PO3: Statement as mentioned in Annexure I						
РОЗ						
Action 1:						
Action N:						
PO4: Stat	ement as ment	ioned in Annexure	I			
PO4						
Action 1:						
Action N:						
PO5: Stat	ement as ment	ioned in Annexure	I			
PO5						
Action 1:						
Action N:						
PO6: Stat	ement as ment	ioned in Annexure	I			
PO6						
Action 1:						
Action N:						
PO7: Stat	ement as ment	ioned in Annexure	I			
P07						
Action 1:						
Action N:						
PO8: Stat	ement as ment	ioned in Annexure	I			
P08						
Action 1:	Action 1:					
Action N:						
PO9: Statement as mentioned in Annexure I						
PO9						
Action 1:						
Action N:						

PO10: Statement as mentioned in Annexure I						
PO10						
Action 1:						
Action N:						
PO11: Sta	atement as mer	ntioned in Annexur	e I			
P011						
Action 1:						
Action N:						
PO12: Sta	atement as mer	ntioned in Annexur	re I			
P012						
Action 1:						
Action N:						
Similar information is to be provided for PSOs if any						



7.2. Academic Audit and actions taken thereof during the period of Assessment (15)

(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 (20)

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				CAYm2	CAYm3
National	Level	Entrance	No. of Students admitted			
Examination	(Name	of the	Opening Score/Rank			

Entrance Examination)	Closing Score/Rank		
	No. of Students admitted		
Examination/Others (Name of the Entrance	Opening Score/Rank		
Examination)	Closing Score/Rank		
Name of the Entrance	No. of Students admitted		
Examination for Lateral Entry or	Opening Score/Rank		
lateral entry details	Closing Score/Rank		
Average percentage of marks in Result of admitted students Mathematics)			

Table B.7.4.

CRITERION 8	First Year Academics	50
--------------------	----------------------	----

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

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

Data for first year courses to calculate the FYSFR:

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 Faculty with Ph.D., y = Number of 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	Ŷ	RF	Assessment of faculty qualification $(5x + 3y)/RF$
CAY				
CAYm1				
CAYm2				
	Average			



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.

Academic Performance	CAYm1	CAYm2	CAYm3
Mean of 1 st 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 first year/10))			
Total no. of successful students (Y)			
Total no. of students appeared in the examination (Z)			
$API = X^* (Y/Z)$			
Average API = (AP1 + AP2 + AP3)/3		1	1

Table 8.3.1.

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 institution level 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 the COs of a subject plus the performance in the institution level examination)

Refer to 3.1.1 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 (10)

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 and Program Specific 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	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101													
C102													
Direct Attainment													
Final Attainment													
Table B.8.5.1.													

- Add more columns for PSOs if needed.
- If necessary, present the table in Landscape format

8.5.2. Actions taken based on the results of evaluation of relevant POs and PSOs (10)

(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-CAYm1 only- Mention for relevant POs

POs	Target Level	Attainment Level	Observations					
PO1: Stat	ement as ment	ioned in Annexure	I					
P01								
Action 1:								
Action N:								
PO2: Stat	ement as ment	ioned in Annexure	I					
PO2								
Action 1:								
Action N:								
PO3: Statement as mentioned in Annexure I								
PO3								
Action 1:								
Action N:								

PO4: Statement as mentioned in Annexure I						
04						
ction 1:						
ction N:						
05: Statement as mentioned in Annexure I						
05						
ction 1:						
ction N:						
06: Statement as mentioned in Annexure I						
06						
ction 1:						
ction N:						
07: Statement as mentioned in Annexure I						
07						
ction 1:						
ction N:						
08: Statement as mentioned in Annexure I						
08						
ction 1:						
ction N:						
PO9: Statement as mentioned in Annexure I						
09						
Action 1:						
Action N:						
PO10: Statement as mentioned in Annexure I						
010						
ction 1:						
ction N:						

PO11: Statement as mentioned in Annexure I						
P011						
Action 1:						
Action N:						
PO12: Sta	atement as mer	ntioned in Annexur	e I			
P012						
Action 1:						
Action N:						

Table B.8.5.2

Write similar action statements for relevant PSOs

CRITERION 9	Student Support Systems	50
--------------------	-------------------------	----

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; Specify 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.)

10.1. Organization, Governance and Transparency (55)

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. Availability of the Institutional Strategic Plan and its Effective Implementation and Monitoring (25)

10.1.3. 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.

10.1.4. Decentralization in working and grievance redressal mechanism (5)

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.

10.1.5. Delegation of financial powers (5)

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

10.1.6. 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 Institute level (15)

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), CFYm3 (Current Financial Year minus 3)

For CFY

Tota	al Income	in CFY:		Actu	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.

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 CFY <i>m</i> 3
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				



* Items to be mentioned.

10.2.1. Adequacy of budget allocation (5)

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

10.2.2. Utilization of allocated funds (5)

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

10.2.3. Availability of the audited statements on the institute'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 – CFY*m1* (Current Financial Year minus 1) CFY*m2* (Current Financial Year minus 2) CFY*m3* (Current Financial Year minus 3)

Total Budget	in CFY:	Actual expen CFY (till	Total No. of students in CFY:	
Non recurring	Non recurring Recurring		Recurring	Expenditure per student

For CFY

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	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)

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

10.3.2. Utilization of allocated funds (20)

(Institution 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 below:

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 institute 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 Institute 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

ANNEXURE I

(A) PROGRAM OUTCOMES

Engineering Graduates will be able to:

- 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 sustainability**: 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 multidisciplinary 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 multidisciplinary 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.