

## Part B-Program Assessment Worksheet

### Program Level Criteria - To be Assessed by Evalutaor

Name of the Institution \_\_\_\_\_

Name of the Program \_\_\_\_\_

Criterion 1: Vision, Mission and Program Educational Objectives (50)							
S.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 (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 (3 to 5) (5) Appropriateness				
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)				
			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	15	A. Description of process for defining the Vision, Mission of the Department (7)				
			B. Description of process for defining the PEOs of the program (8)				
1.5.	Establish consistency of PEOs with Mission of the Department	15	A. Preparation of a matrix of mapping PEOs and elements of Mission statement (5)				
			B. Consistency/justification of mapping of the matrix (10)				
<b>Total of Criterion 1:</b>		<b>50</b>	<b>Overall Marks for Criterion 1:</b>				
Criterion 2: Program Curriculum and Teaching – Learning Processes (200)							
S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total		
2.1.	<b>Program Curriculum</b>	<b>40</b>					
2.1.1.	State the process used to identify extent of compliance of the Board curriculum for attaining the Program Outcomes (POs) & Program Specific Outcomes (PSOs), mention the identified curricular gaps, if any	25	A. Process used to identify extent of compliance of Board curriculum for attaining POs & PSOs (15)				
			B. List the curricular gaps for the attainment of POs & PSOs (10)				
	State the delivery details of the		A. A. Steps taken to get identified gaps included in the curriculum (eg. letters to Board) (2)			<b>Overall Marks for 2.1</b>	

Signature (Program Evaluator)

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines (Marks)	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total		
2.1.2.	content beyond the syllabus for the attainment of POs & PSOs	15	B. Delivery details of content beyond syllabus (10)				
			C. Mapping of content beyond syllabus with the POs & PSOs (3)				

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines (Marks)	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)	
				Marks	Total			
<b>2.2.</b>	<b>Teaching-Learning Processes</b>	<b>160</b>				<b>Overall Marks for 2.2</b>		
2.2.1	Describe the Process followed to improve quality of Teaching Learning	25	A. Adherence to Academic Calendar (3)					
			B. Use of various instructional planning and delivery methods (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 Semester Test and Assignments.	15	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 and Assignments (5)					
2.2.3.	Quality of experiments	15	A. Experimental Methodology (5)					
			B. Innovative experiments including industry attached practices, virtual labs (05)					
			B. Relevance of the experiments and their contribution towards attainment of POs and PSOs(5)					
2.2.4.	Quality of Students Projects and Report Writing	35	A. Identification of projects and allocation methodology (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 deliverable, working prototypes (12)					
			F. Papers published /Awards/ Recognition received by projects at State/ National level (5)					
2.2.5.	Industry interaction and industry internship/summer training	30	A. Industry supported laboratories (2)					
			B. Delivery of appropriate Course work by industry experts (5)					
			C. Industrial visits/tours for students (3)					
			D. Industrial training/ internship (5) (Marks to be given proportionately i.e. 100% student attended =05 Marks; 90% students attended = 04, Marks and so on...)					
			E. Post training/ internship Assessment (10)					
			F. Contribution to Community related projects/activities (05)					

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines (Marks)	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total		
2.2.6.	Information Access Facilities and Student Centric Learning Initiatives	15	A. Availability of facilities & Effective Utilization; specify the facilities, materials and scope for self-learning, Webinars, NPTEL Podcast, MOOCs etc. (10)				
			B. Student Centric Learning Initiatives & Effective Implementation (5)				

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines (Marks)	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total		
2.2.7.	New Initiatives for embedding Professional Skills	15	A. Core employability skill enhancement initiatives and effective implementation (8)				
			B. Personality development related Initiatives & effective implementation (7)				
2.2.8.	Co-curricular & Extra Curricular Activities	10					
<b>Total of Criterion 2:</b>		<b>200</b>	<b>Overall Marks for Criterion 2:</b>				
<b>Criterion 3: Course Outcomes and Program Outcomes (100)</b>							
S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total		
<b>3.1.</b>	<b>Establish the correlation between the courses and the POs &amp; PSOs</b>	<b>20</b>				<b>Overall Marks for 3.1</b>	
3.1.1.	Course Outcomes	5	Evidence of COs being defined for every course (5)				
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)				
<b>3.2.</b>	<b>Attainment of Course Outcomes</b>	<b>40</b>				<b>Overall Marks for 3.2</b>	
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 (5)				
			B. The quality /relevance of assessment processes & tools used (5)				
3.2.2.	Record the attainment of Course Outcomes of all courses with respect to set attainment levels	30	Verify the attainment levels as per the benchmark set for all courses (30)				
<b>3.3.</b>	<b>Attainment of Program Outcomes and Program Specific Outcomes</b>	<b>40</b>				<b>Overall Marks for 3.3</b>	
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 (2)				
			B. The quality/relevance of assessment tools/processes used (8)				
3.3.2.	Provide results of evaluation of each PO & PSO	30	A. Verification of documents, results and level of attainment of each PO/PSO (20)				
			B. Overall levels of attainment (10)				
<b>Total of Criterion 3:</b>		<b>100</b>	<b>Overall Marks for Criterion 3:</b>				

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines (Marks)	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total		
<b>Criterion 4: Students' Performance (200)</b>							
S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total		
4.1.	<b>Enrolment Ratio (20)</b>	20	<p>A. <math>\geq</math> 90% students enrolled at the First Year Level on average basis during the period of assessment (20)</p> <p>B. <math>\geq</math> 80% students enrolled at the First Year Level on average basis during the period of assessment (18)</p> <p>C. <math>\geq</math> 70% students enrolled at the First Year Level on average basis during the period of assessment (16)</p> <p>D. <math>\geq</math> 60% students enrolled at the First Year Level on average basis during the period of assessment (12)</p> <p>E. <math>\geq</math> 50% students enrolled at the First Year Level on average basis during the period of assessment (8)</p> <p>F. <math>&lt;</math>50% Students enrolled at the First Year Level on average basis during the period of assessment (0)</p>			Overall Marks for 4.1	Mention Numbers
4.2.	<b>Success Rate in the stipulated period of the program</b>	60				Overall Marks for 4.2	
4.2.1.	Success rate without backlogs in any year of study Without Backlog means no compartment or failures in any semester/year of study	40	$SI = \frac{\text{Number of students who have passed from the program without backlog}}{\text{Number of students admitted in the first year of that batch plus actually admitted in 2nd year via lateral entry}}$ Average SI = Mean of success index (SI) for past three batches Success rate without backlogs in any year of study = $40 \times \text{Average SI}$				Mention Numbers
4.2.2.	Success rate in stipulated period (actual duration of the program) [Total of with backlog + without backlog]	20	$SI = \frac{\text{Number of students who have passed from the program in the stipulated period of course duration}}{\text{Number of students admitted in the first year of that batch plus actually admitted in 2nd year via lateral entry}}$ Average SI = mean of success index (SI) for past three batches Success rate = $20 \times \text{Average SI}$				Mention Numbers
4.3.	<b>Academic Performance in First Year</b>	25	<p>Academic Performance Level = <math>2.5 \times \text{Average API}</math></p> <p>API = ((Mean of 1st 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)) <math>\times</math> (successful students/number of students appeared in the examination).            Successful students are those who are permitted to proceed to the second year.</p>			Overall Marks for 4.3	Mention Numbers

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines (Marks)	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total		
4.4.	Academic Performance in Second Year	20	Academic Performance Level = 2.0 * Average API  API = ((Mean of 2ndYear 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 (successful students/number of students appeared in the examination)  Successful students are those who are permitted to proceed to the final year (third year)			Overall Marks for 4.4	Mention Numbers
4.5.	Academic Performance in Final Year (3 <sup>rd</sup> Year)	15	Academic Performance Level = 1.5 * Average API (Academic Performance Index)  API = ((Mean of Final 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 4.5	Mention Numbers
4.6.	Placement and Higher studies	40	Assessment Points = 40 X Average placement Average placement= (P1 + P2 + P3)/3 Placement Index (P) : (1.25X + 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 Z = No. of students turned entrepreneur in the respective field of engineering/technology N = Total number of final year students			Overall Marks for 4.6	Mention Numbers
4.7.	Professional Activities	20				Overall Marks for 4.7	
4.7.1.	Professional societies/chapters and organizing engineering events	10	A. Availability & activities of professional societies/chapters (5) B. Number, quality of engineering events (organized at institute) (5)				
4.7.2.	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)				
4.7.3.	Participation in inter-institute / state/national events by students of the program of study	5					
<b>Total of Criterion 4:</b>		<b>200</b>	<b>Overall Marks for Criterion 4:</b>				

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines (Marks)	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total		
<b>Criterion 5: Faculty Information and Contributions (150)</b>							
S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks	Total	Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
5.1.	<b>Student-Faculty Ratio (SFR)</b>	25	<p>Marks to be given proportionally from a maximum of 25 to a minimum of 10 for average SFR between 25:1 to 30:1, and zero for average SFR higher than 30:1. Marks distribution is given as below:</p> <p>&lt;= 25 - 25 Marks            &lt;= 26 - 22 Marks            &lt;= 27 - 20 Marks            &lt;= 28 - 15 Marks            &lt;= 29 - 12 Marks            &lt;= 30 - 10 Marks            &gt; 30 - 0 Marks</p> <p><b>Note:</b>            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:</p> <p>1. Shall have the AICTE prescribed qualifications and experience.            2. 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.            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</p>			Overall Marks for 5.1	
5.2.	<b>Faculty Qualification</b>	25				Overall Marks for	Mention numbers
5.2.1.	Faculty Qualification Index	20	$FQ = 2 * (10x + 7y) / F$ where x is no. of faculty with M.Tech. (in case of humanities and science M.Phil./Ph.D.) and y is no. of faculty with B.Tech. (In case of humanities and science MA/M.sc), F is no. of faculty required to comply 1:25 Faculty Student Ratio. (20)				
5.2.2	Availability of Faculty/principal of that discipline with PhD. Qualification	5					
			>= 90% of required Faculties retained averaged over the period of assessment keeping CAYm2 as base year (20) >= 75% of required Faculties retained averaged over the period of assessment keeping CAYm2 as base year (15)				



S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines (Marks)	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total		
5.3.	Faculty Retention	20	>= 60% of required Faculties retained averaged over the period of assessment keeping CAYm2 as base year (10)			Overall Marks for 5.3	
			>= 50% of required Faculties retained averaged over the period of assessment keeping CAYm2 as base year (5)				
			<50% of required Faculties retained averaged over the period of assessment keeping CAYm2 as base year (0)				

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines (Marks)	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total		
5.4.	<b>Faculty as participants in Faculty development /training activities</b>	42				Overall Marks for 5.4	Mention numbers
5.4.1	Faculty as participants in Faculty development/training activities conducted by other organizations	30	Assessment = 6 xsum/0.5 Required Faculty (Marks limited to 30) Faculty scores maximum 5 marks for participation. Participant in 2 to 5 days FDP - 3 Marks Participant in >5 days FDP - 5 Marks				
5.4.2	Organized/ Conducted FDPs and STTP by this department at State / National Level	12	<ul style="list-style-type: none"> <li>Minimum 2 days program</li> <li>2 points per program (max. upto 12 marks)</li> </ul>				
5.5.	<b>Product Development, Consultancy, Manufacturing Contracts, Testing Contracts</b>	8	5 marks in each based on documentary evidence			Overall Marks for 5.5	
5.6.	<b>Faculty Performance Appraisal and Development System (FPADS)</b>	30	A. A well-defined FPADS instituted for all the assessment years (5) B. Its implementation and effectiveness (15) C. Qualification up-gradation of faculty (10)			Overall Marks for 5.6	
<b>Total:</b>		<b>150</b>					
<b>Criterion 6: Facilities and Technical Support (100)</b>							
S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total		
6.1.	<b>Adequate and well equipped classrooms to meet the curriculum requirements</b>	10				Overall Marks for 6.1	
6.2.	<b>Availability of adequate and well-equipped workshops, Laboratories and Technical manpower to meet the curriculum requirements</b>	40	A. Adequacy (10)			Overall Marks for	
			B. Quality of Labs/workshop (20)				
			C. Technical Manpower support –Eligible and Adequate (10)				
6.3.	<b>Additional Facilities created for improving the quality of learning experience in Laboratories</b>	20	A. Facilities (10)			Overall Marks for	
			B. Effective Utilization (05)			6.4	
			C. Relevance to POs/PSOs (05)				
6.4.	<b>Laboratories: Maintenance and overall ambiance</b>	10				Marks for 6.5	
6.5.	<b>Availability of computing facility in the department</b>	10	Availability and Adequacy (10)			Overall Marks for 6.6	

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines (Marks)	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total		
6.6.	Language Lab	10	Availability and effective utilization (10)			Overall Marks for 6.7	
<b>Total of Criterion 6:</b>		<b>100</b>	<b>Overall Marks for Criterion 6:</b>				

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines (Marks)	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total		
<b>Criterion 7: Continuous Improvement (75)</b>							
S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	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	25	A. Documentation of POs and PSOs attainment levels (10) B. Identification of gaps/shortfalls/ improvement from continuous improvement perspective (5) C. Plan of action to bridge the gap and its Implementation (10)			Overall Marks for 7.1	
7.2.	Improvement in Success Index of Students without the backlogs	10	Assessment shall be proportional to improvement (10)			Overall Marks for 7.2	
7.3.	Improvement in Placement and Higher Studies	10	Assessment is based on Nos., Quality Placements, Core Companies and Pay Packages(10)			Overall Marks for 7.3	
7.4.	Improvement in Academic Performance in Final Year	10	Assessment shall be proportional to improvement (10)			Overall Marks for 7.4	
7.5.	Internal Academic Audits to Review Complete Academics & to Implement Corrective Actions on Continuous Basis	10	Marks to be given on the basis of the following: A. Audit Criteria B. Frequency C. Methodology D. Effectiveness E. Action Plan			Overall Marks for 7.5	
7.6.	New facility created	10	Relevance			Overall Marks for 7.6	
<b>Total of Criterion 7:</b>		<b>75</b>	<b>Overall Marks for Criterion 7:</b>				