Annexure – VII

GUIDELINES FOR 'COMMUNITY ENGAGEMENT PROJECT/ INTERNSHIP/ RESEARCH PROJECT'

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Sem	Course Type	Subjects	Course Code	Teaching Scheme		Examination Scheme				Credits
				Hours/Week		Max. Marks (SEE)	Max. Marks (CIE)	Total Marks	Min. Passing Marks	
				Theory	Practical					
III	CEP	Community Engagement Project	BCE3P01	-	4	-	100	100	50	2
VII	OJT	Internship	BOJ7P01	-	24	200	200	400	200	12
VIII	PROJ	Project	BPR8P01	-	8	100	100	200	100	4

[A] GUIDELINES FOR 'COMMUNITY ENGAGEMENT PROJECT/ INTERNSHIP

1. **Learning Outcomes**

CO1	Student will be able to explain the profile of the institute/company/industry where the Field Project/ Community Engagement Project/Internship/Apprenticeship has been carried out. **OR** Student will be able to describe the need for objective of undertaking the field project.
CO2	The student will be able to assess its Strengths, Weaknesses, Opportunities and Challenges (SWOC). **OR** Student will be able to list the outcomes of the Field Project.
CO3	Student will be able to determine the challenges and future potential of Field Project/Internship. **OR** Student will be able to describe the profile of respondents / community involved in the 'Field Project' or 'Community Engagement Project'.
CO4	Student will be able to correlate theoretical classroom learning and its application in practical situations by accomplishing the tasks undertaken during Internship/Apprenticeship, Field Project, or Community Engagement Project.
CO5	Student will be able to apply various soft skills such as time management, positive attitude, and communication skills, scientific temperament during Internship/apprenticeship/FP/CEP.
CO6	Student will be able to suggest improvements in processes/systems based on his experiences during Internship/apprenticeship/FP/CEP.

2. Every student admitted to B.Tech. is compulsorily required to undergo these courses.

3. Each student will be required to submit a detailed report to the Department/ College/ Institute for the work undertaken during the respective semester **within 7 days of completion of the training** following which the evaluation and assessment for Internship /CEP will be done as per rubrics given by the college/institute concerned. The report submitted must be according to the Learning outcomes.

4. College/Institute is required to assign Supervisor/Mentor to students for Internship/CEP who will guide the students in attaining the outcomes of this course.

5. It is desirable to appoint an external examiner from the company/organization where a student has completed his internship/ CEP. However, the Principal/HOD may appoint any other industry professional or subject expert as an external examiner. The remuneration, TA/DA or Conveyance Allowance to external examiner may be paid by the college/institute which will be reimbursed by the university as per established rules.

6. The Internal Examiner and External Examiner shall jointly evaluate the report submitted by the student and her/his seminar and shall immediately submit the evaluation report in the prescribed format provided in this annexure.

7. The College/Institute shall submit marks obtained by students to the university as per prevalent system within 3 days of evaluation.

[A-1] EVALUATION REPORT OF INTERNSHIP

Bachelor of Technology (Major Subject) Examination, _____

Name of Student: _____

Internship Title: _____

Roll No._____ Semester_____   Max. Marks: 400

CRITERION	Parameters	Score
Continuous Internal Evaluation (CIE)	Regularity, punctuality, sincerity, scientific temperament and feedback from the organization where OJT/Internship has been carried out	____ Out of 200
Description of Organizational Profile	Company profile, Historical evolution, Management structure, Organization structure, Products / services offered, Key achievements, Market performance, application of his subject in the company/ industry	____ Out of 40
Analysis of organization & Sector.	SWOT analysis, Key challenges & opportunities, Company Analysis, Sector Analysis, Competitive analysis	____ Out of 40
Application of theoretical knowledge.	Details of the work done, Job Description, specification. Project implemented. Identify the various issues in organization and its processes.	____ Out of 40
Conclusions and Recommendations	Specific Conclusions based on empirical evidences. Recommendations based on practical feasibility	____ Out of 40
Presentation	A power point presentation based on work carried out and viva voce by external examiner.	____ Out of 40
Internal Marks (CIE) Scored out of 200		
External Marks (SEE) Scored out of 200		
Total Marks Scored out of 400		

Name and Signature of Internal Examiner	Name and Signature of External Examiner

[A-2] EVALUATION REPORT OF COMMUNITY ENGAGEMENT PROJECT

Bachelor of Technology (Major Subject) Examination, _____

Name of Student: _____

CEP Title: _____

Roll No._____ Semester_____   Max. Marks: 100 (CIE)

CRITERION	Parameters	Score
Continuous internal Evaluation (CIE)	Regularity, punctuality, sincerity, and overall feedback from the supervisor and community	―― out of 50
Description UN SDG Related to CEP	Detailed description of United Nations Sustainability Development Goals (SDGs) related to FP/CEP undertaken by the student. The degree and extent of such related SDGs should be clearly mentioned	―― out of 10
Description of Respondent Profile/Community Profile & Listing of goals/objectives/ Outcomes of CEP	A detailed description (Including Statistical Data) of the respondents / community where the CEP is being undertaken. Clear Mention of issues/problems under study to be included. Comprehensive Listing of goals/objectives/Outcomes of CEP	―― out of 10
Application of theoretical knowledge.	Details of the work done or project implemented during CEP is documented in detail. Theoretical basis is used to identify the various issues related to problem under consideration	―― out of 10
Conclusions and Recommendations	Specific Conclusions based on empirical evidences. Recommendations based on practical feasibility	―― out of 10
Feedback from concerned organization/Comm unity Head	Authentic Company Certificate of completion /appreciation clearly classifying the performance of the student as **Excellent** / **Above Average** or **Good/ Average** or **Satisfactory /below average.**	―― out of 10
Marks (CIE) Scored out of 100		

Name and Signature of Internal Examiner	Name and Signature of External Examiner

[B] GUIDELINES FOR RESEARCH PROJECT

1. Learning Outcomes:

On completion of the research project, the learner will be able to –	
CO1	Formulate a research problem statement under a given state of conditions.
CO2	Carry out Review of Literature in the context of defined research problem and identify research gap.
CO3	Develop Constructs, design data collection, instruments and collect data using appropriate sampling technique and procedure.
CO4	Analyse data to arrive at meaningful findings and conclusions using appropriate statistical tools with reference to defined research problem.
CO5	Write a project report explaining research problem, hypotheses (if any), data collection, analysis of data, findings, conclusions, and recommendations
CO6	Defend the research design, methods, and findings in the Open Defence Examination

2. The research project is a compulsory course carrying 4 credits (8th Semester) to become eligible for award of degree of Bachelor of Technology under this scheme of examination.
3. The research project of a student should be corresponding to the 'Major Subject' selected by a student.
4. College/Institute is required to assign Supervisor to students for Research Project who will guide the students in attaining the outcomes of this course. One such supervisor can supervise maximum 20 students in a session.
5. Appointment of Supervisor: A supervisor shall be a full-time teacher working with the college/institute concerned. However, in case of non-availability of adequate number of full-time teachers, an ad-hoc teacher can be appointed as a supervisor. In certain cases, an industry professional or subject expert can also be appointed as a supervisor by the Principal of college. Supervisors shall not claim any additional remuneration/honorarium for guiding students.

6. Guidelines for Research Project:

    a. **Objective**: Every student admitted to Bachelor of Technology will be assigned a project in 8th Semesters and it will be pursued by her/him under the supervision of an internal supervisor. The objective of the Project Work is to help the student develop her/his ability to apply multidisciplinary concepts, tools and techniques to solve organizational problems and/or to evolve new/innovative theoretical frame work.
    b. **Types of Projects**: The Project may take any one of the following forms (not limited to these):
        i. *Review project:* A comprehensive review of literature based on a topic as assigned by the supervisor or selected by the student. This should include a detailed literature survey of about last 20 years (min. 50 research articles) related to the topic. This may lead to a good review article in journal.
        ii. *Research project:* Experimental study based on the research topic leading to brief literature survey (min. 25 research articles), experimental section, results, discussion, conclusion and references.
        iii. *Field study (Case study)*: A field study or a case study on a topic selected. This may lead to analysis and results obtained by the students himself or the detailed analysis of the results reported in literature (min. 25 research articles/cases).

c. **Selection of Project Topic:**

- Project topic has to be selected with respect to the programme of study and area decided by the student.
- Topic of the project should clearly specify the objective and scope of the study. It should be specific and neither too vague nor centralistic. The topic should be designed meticulously. It can be designed like "Analysis of air quality index of industrial zone of MIDC Hingna: A comprehensive case study".
- Project selection has to be done in consultation with the supervisor who will act as a Project guide for the student. The Project Guide/Supervisor shall approve the topic and project synopsis in the initial phase of the project.

d. **Scope of Work**: The student is expected to carry out following activities in the project:
1. Prepare a synopsis and get it approved by the supervisor as assigned by the respective Institutes. **Approved synopsis shall be part of final report as appendix.**
2. Undertake a detailed literature survey (as given in clause 6 b) on the subject matter.
3. Carry out relevant experiments/data collection/observations.
4. Consult experts of the field.
5. Visit related organizations/institutions/industries.
6. Compile data in proper format.
7. Make proper conclusion/recommendations.
8. Prepare a Project Report.
9. The project-report should not exceed 100 pages.
10. Obtain approval of Project Report by project supervisor.
11. Submit a hard-bound copy of the Project Report at the Institute.
12. PowerPoint presentation at the time of examination based on his work.

e. **Submission of the Research Project Report:** Every student shall submit a hard copy of the Research Project Report duly signed by the her/him and supervisor to the college/institute one month prior to the date of the commencement of respective Examination. Following documents are required to be submitted with the Research Project Report:
   i. A certificate from the Supervisor to the effect that the candidate has satisfactorily completed the project work for not less than one semester and that the project is the result of the candidates own work and is of sufficiently high standard to warrant its presentation for examination
   ii. A declaration by the candidate that the project is the result of her/his own research work and the same has not been previously submitted to any examination of this University or any other University. The Project shall be liable to be rejected and /or cancelled if found otherwise.
   iii. A certificate obtained through anti-plagiarism software stating that the similarity index in the project work report is less than 20%; must be attached at the beginning of the project report or a certificate from the Supervisor to the effect that the candidate has not copied / plagiarised the contents of project report and that the supervisor has ensured the originality & authenticity of data /contents incorporated in the project report.

    f. **General Format of the Report**: The project report should preferably be written in the following format (The format may vary depending on the nature of research topic):

       i. Summary/Synopsis
      ii. Introduction
    iii. Materials and Methods / Experimental
    iv. Results & Discussion
     v. Conclusion and future scope
    vi. Bibliography/ References

7. The College/Institute, on receipt of the report from student, shall schedule the open defence seminar by a student before the commencement of Semester End Examination.

8. The open defence seminar (pre-submission) by a student shall be evaluated by the supervisor/mentor assigned to a student (as an internal examiner).

9. **Appointment of External Examiner:** The External Examiner for evaluation of Research Project Report shall be appointed by the University through its established rules and procedures. The remuneration TA/DA or Conveyance Allowance to external examiner may be paid by the college/institute which will be reimbursed by the university as per established rules.

10. The Internal Examiner and External Examiner shall jointly evaluate the report submitted by the student and her/his seminar and shall immediately submit the evaluation report in the prescribed format provided along with.

11. The College/Institute shall submit marks obtained by students to the university as per prevalent system within 3 days of evaluation.

Bachelor of Technology Examination, Summer-20__
EVALUATION REPORT OF PROJECT & VIVA VOCE

Major: _____   **Examination_____**

Name of Student: -_____

Roll No._____   Semester_____

Project Title: _____

Name of the Supervisor: _____

Parameters	Score
Continuous internal evaluation (CIE)	___ out of 100
Introduction to the topic and relevance with the current scenario	___ out of 10
Literature Review (Refer Clause 6 b of this annexure) For experiment-based project, a detailed review of last 5 years literature For review project, a detailed review of last 20 years literature For field study, a comprehensive literature study related to the case	___ out of 20
Experimental section / Materials and Methods	___ out of 10
Results and Discussion	___ out of 30
Conclusion and future scope	___ out of 10
Oral Presentation and viva voce Contents of presentations Communication & Delivery, Q & A	___ out of 20
Internal Marks (CIE) Scored out of 100	
External Marks (SEE) Scored out of 100	
Total Marks Scored out of 200	

Signature of External   Signature of Internal