

	PROGRAMME BRIEF	Format No.	F/TR/02
		Issue No.	02

Program Title: Designing Question Paper for Mechanical and Allied Engineering Discipline (GJP-017/10-11)

1) Rationale:

Examinations to assess students' learning is an important aspect of curriculum implementation, because it affects what the students learn and the way they learn. Ideally, examination process is meant to support teaching-learning process and hence considered supportive to it. However, due to importance of marks achieved in our day to day life more particularly, in getting admissions to higher level programmes and securing jobs, examination process has gained so much importance that gradually teaching-learning process has become subordinate to it. In other words, in some cases question papers of the last five years become the de-facto curriculum, and sometimes, even teachers' starts teaching as per the question papers of last years. In such a scenario, there is need to address the quality of question papers. If quality of question paper is not good enough, it may lead to improper learning. It is generally observed that most of the time question papers consists memory based questions and because of this students also study accordingly. In this situation many students are able to get the degrees without understanding of the subject knowledge and ability to apply it in real life situations. It is therefore imperative to ask understanding and application level questions in the question papers.

Other problems associated with the question papers are improper coverage of the curriculum, ambiguity in questions, role played by chance or luck factor, subjectivity in understanding the scope of questions by students as well as examiners.

All these problems may be addressed if proper types of questions are selected, proper language is used and proper marking scheme is provided with the questions. Most of the paper setters are good in subject knowledge but they may need training for developing good question papers.

Another area of concern is assessment of lab work and project work. The industry/employer in general complain that students lack certain skills such as using machines/equipments, handling instruments/tools, time management, team working, leadership and communication. Lab, workshop and field experiences along with project work provide opportunities to learn these skills, but assessment of these does not have focus on the skills demanded by industry.

This programme therefore aims to increase the effectiveness of assessment in all the domains of learning viz. cognitive domain (related to theory part of the curriculum), psychomotor domain (related to practical skills) and affective domain (related to personality and inter- personal skills), though the main focus of the programme would be to develop the ability to set good quality question papers.

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2) Aim:

To improve the quality of the question papers and assessment of practical work .

3) Objectives: At the end of the programme, the participants will be able to:

- a) Enumerate the purposes of students' assessment.
- b) Explain the characteristics of a good assessment system.
- c) Identify the domain and taxonomy level of different instructional objectives.
- d) Describe the strengths and weaknesses of different type of questions.
- e) Design good quality essay type, short answer type, multiple choice and structured type questions.
- f) Edit/Moderate the question papers developed by their peers.
- g) Design good quality of question papers with proper guidelines.
- h) Develop assessment schemes and instruments for assessing performance of students in Laboratory, workshops and projects.

4) Programme Contents:

- a) Characteristics of a good examination system.
- b) Different domains of learning and taxonomy of learning
- c) Instructional objectives in different domains of learning
- d) Concept of reliability and validity
- e) Techniques for increasing reliability and validity, specification table
- f) Different types of questions and their strengths and limitations.
- g) Techniques for developing good questions
- h) Concept of Question Banking
- i) Problems and issues in assessment of performance
- j) Check lists and rating scales
- k) Assessment of project work
- l) Assessment in affective domain, issues and limitations

5) Major Outcomes Expected

Trainees will be able to produce following

- a) Analysis and review of the existing assessment system
- b) Developed specification tables for the subjects they teach.
- c) Different types of questions and marking scheme for the same.
- d) Question Papers as per the specification table with marking scheme
- e) Edited/moderated question papers
- f) Checklists and rating scales

6) Instructional Strategies

- a) Input and discussion
- b) Individual and group assignment
- c) Peer editing/moderation of questions/question papers
- d) Question and answer sessions
- e) Presentations by participants

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7) Dates: 17th – 21st January 2011

8) Venue: NITTTTR, Extension Centre,
Technology Bhavan
RCTI Campus,
Opp: New Gujarat High Court
Sola, Ahmedabd.

9) Participants :

Faculty of Engineering Colleges and Polytechnics in Science, Maths & other basic Subject of engineering disciplines.

10) Coordinator with Designation:

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11) Faculty team with Designation:

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12) Programme Schedule: As enclosed



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