



### ACADEMIC NOTIFICATION

#### **Guidelines for Comprehensive Examination (CE) for 2018-22 Cycle**

- The examination should be Multiple Choice Questions (MCQ) type and should carry 1 or 2 marks each in all the papers and sections.
- The questions should be objective in nature, and each will have a choice of four answers, out of which the student has to select (mark) the correct answer.
- Questions must be based on the syllabus of the subjects for which CE is to be taken.
- Head of the Department should coordinate the question paper setting and in order to set balanced QP, all concern subject teachers should involve in paper setting.
- For CE I and CE II, level of 40% questions should be equivalent to GATE QP (Paper Setter may refer QP of previous GATE exams).
- For CE III and CE IV, level of 60% questions should be equivalent to GATE QP.
- The Engineering Mathematics should carry around 30% of the total marks and the remaining around 70% of the total marks should be devoted to the subject of the paper.

#### **The questions in a paper may be designed to test the following abilities:**

- (i) **Recall:** These are based on facts, principles, formulae or laws in the discipline of the paper. The student is expected to be able to obtain the answer either from his/her memory of the subject or at most from a one-line computation.

Example:

Q. During machining, maximum heat is produced

- (A) in flank face (B) in rake face  
(C) in shear zone (D) due to friction between chip and tool

- (ii) **Comprehension:** These questions will test the student's understanding of the basics of his/her field, by requiring him/her to draw simple conclusions from fundamental ideas.

Example

Q. A DC motor requires a starter in order to

- (A) develop a starting torque (B) compensate for auxiliary field ampere turns  
(C) limit armature current at starting (D) provide regenerative braking





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(iii) **Application:** In these questions, the student is expected to apply his/her knowledge either through computation or by logical reasoning.

Example

Q. The sequent depth ratio of a hydraulic jump in a rectangular channel is 16.48. The Froude number at the beginning of the jump is:

(A) 5.0 (B) 8.0 (C) 10.0 (D) 12.0

The questions based on the above logics may be a mix of single standalone statement/phrase/data type questions, combination of option codes type questions or match items type questions.

(iv) **Analysis and Synthesis:** In these questions, the student is presented with data, diagrams, images, etc. that require analysis before a question can be answered. A Synthesis question might require the student to compare two or more pieces of information. Questions in this category could, for example, involve students in recognizing unstated assumptions, or separating useful information from irrelevant information.

The paper setter may refer GATE question papers for these kinds of questions



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