

Roll No.

23124

**M.Tech 3rd Semester (M.E)
(Manufacturing and Automation)
Examination-May, 2015**

MECHANICAL DESIGN-II

Paper : 951

Time : 3 hours

Max. Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

Note : Attempt any **five** questions. All questions carry equal marks.

1. (a) Define the Cost Engineering. What is the role of cost engineering in product design ? (10)

(b) Define the budgeting. What is the role of budgeting in product design ? (10)

2. Discuss the following : (20)
- (a) Tooling amortizing
 - (b) Activity based costing
3. (a) What is the role of tolerance in product design ? (10)
- (b) What is geometry dimensioning ? What is the significance of geometry dimensioning in mechanical design ? (10)
4. (a) What is dimensioning ? What are different methods of dimensioning ? (10)
- (b) What is packaging ? What are different methods of packaging ? (10)
5. Define prototyping. What is the role of prototyping in mechanical design ? Also explain rapid prototyping. (20)

6. Explain the following : (20)

(a) Hammer forming

(b) Integrated cost price calculations

7. Define the design of experiments. What are the different types of design of experiments ?

(20)

8. What is risk analysis ? What are different failure modes and effect analysis ? Also discuss the root cause analysis. (20)
