

Roll No.

23124

**M.Tech. 3rd Semester (ME)
(Manufacturing & Automation)
Examination-December, 2016**

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) What is cost engineering ? Discuss the activity based costing. (10)

- (b) Define budgeting. What is the role of budgeting in production? (10)
2. (a) What is cost estimation? What is the role of cost estimating in mechanical design? (10)
- (b) Explain the tooling and jigs in detail. (10)
3. Explain the following _
- (a) Integrated Cost Prediction (10)
- (b) Cost down engineering (10)
4. (a) What is dimensioning? What are the different methods of dimensioning? (10)

- (b) What is packaging? What are the different methods of packaging? (10)
5. Define prototyping. What is the role of prototyping in mechanical design? (20)
6. Explain the following :
- (a) Rapid prototyping (10)
- (b) Hammer forming (10)
7. Define the design of experiments. What are the different types of design of experiments? (20)
8. What is risk analysis? What are the different failure modes and effect analysis? Also discuss the root cause analysis. (20)