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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(ME) (E-I 2011 Onwards) (Sem.–6)

**TOOL DESIGN**

Subject Code : DE/ME-3.3

M.Code : 71265

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTION TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

**SECTION-A**

1. Answer briefly :

- a. Define Process Engineering.
- b. State principle of degree of freedom.
- c. Name the different type of drilling jigs.
- d. Write the function of strippers.
- e. What is the use of universal chucking equipment?
- f. What do you understand by Break even point?
- g. Write the limitations of limit gauging.
- h. Write the factors affecting surface finish.
- i. What are indexing devices?
- j. Write types of lathe fixtures.

### SECTION-B

2. Discuss the steps of process planning.
3. Differentiate between compound and combination dies for press tool operations.
4. Write the characteristics of Turret Lathe.
5. Classify the different types of gauges and write the application of each.
6. Explain the method and application of honing.

### SECTION-C

7. Draw and discuss the standard parts used for jig design.
8. Write the classification of tool layout for automatics. Explain the tool layout procedure in detail.
9. How to estimate the cost of tool? Discuss the economics of tooling.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**