

Roll No. 

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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****Paper ID : [A2424]****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. What is process engineering?
- b. What is process planning sheet?
- c. What is the function of indexing devices?
- d. Write the main components of die design.
- e. What is tool layout?
- f. What is the function of universal bar equipment?
- g. What are limits?
- h. What are the elements of surface finish?
- i. What are compound dies?
- j. What is gauge makers tolerance?

### SECTION-B

2. Explain the contents and steps of process planning.
3. What is the function of die blocks? Discuss their design procedure.
4. Write the characteristic of turret lathe.
5. Write the procedure estimating the cost of product.
6. Discuss the limitations of limit gauging.

### SECTION-C

7. Write the principle of jig. Discuss the standard parts of jig design. Show and classify the various types of drilling jigs.
8. Differentiate between capstan and turret lathes.
9. Write note on the following finishing operations :
  - a. Lapping
  - b. Honing