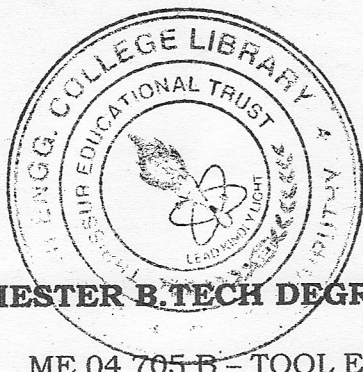


23169



Name : .....

Reg. No: .....

**SEVENTH SEMESTER B.TECH DEGREE EXAMINATION, DECEMBER 2011**

**ME 04 705-B - TOOL ENGINEERING & DESIGN**

Time : Three Hours

Maximum : 100 Marks

**PART - A**

- I (a) What are the requirements needed to a cutting tool material?  
(b) Sketch and explain  
(i) End milling  
(ii) Down milling  
(c) Explain the various types of presses.  
(d) Discuss the various parts of compound die.  
(e) Explain about 3-2-1 principle of location  
(f) Explain the basic principle of clamps and state its advantages.  
(g) What are the important factors considered in drill jig design?  
(h) Explain the functions of jig bushes.

(8×5 = 40)

**PART - B**

- II (a) (i) Explain the nomenclature of single point cutting tool  
(ii) Compare single point cutting tool with multi point cutting tool.  
(Or)  
(b) Describe the different types of tool holders and also briefly mention their design procedure
- III (a) What is meant by centre of pressure in die and punch design? Describe the methods to determine centre of pressure  
(Or)  
(b) Explain in detail about scrap strip layout and mention their advantages and disadvantages.
- IV (a) Explain the working principle of hydraulic and pneumatic fixtures.  
(Or)  
(b) (i) Sketch and describe a fixture to support a rough casting  
(ii) Explain the design consideration in quick acting clamps.
- V (a) What is indexing? Explain the different types of indexing  
(Or)  
(b) Explain about table type jig and compare it with other jigs. Which are used for same application.

(4×15 = 60)

\*\*\*\*\*