

9. Explain the following :

- Group technology layout
- Planning the introduction of group technology and group technology advantages.

Roll No.

24261

B. Tech. 5th Semester (ME)

Examination – December, 2016

MANUFACTURING TECHNOLOGY - II

Paper : ME-309-F

Time : Three Hours] [Maximum Marks : 100

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

Note : Attempt any five Questions in total, at least one question from each section. question no. 1 is compulsory. Each question carries equal marks 20 marks .

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1. Explain the following :

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- Milling Fixtures
- Principle of Electron beam machining
- Difference between Jigs and Fixtures
- CNC Machines

- (e) Orthogonal cutting
- (f) Milling Tools
- (g) Mechanism of metal cutting
- (h) Clamping devices
- (i) Merchant cutting force circle
- (j) Unconventional machining processes

SECTION - A

2. (a) What is the effect of cutting speed, depth of cut and feed rate on the forces on cutting tool? 10
- (b) Explain the mechanism of chip formation. Also explain the continuous chips with built up edge. 10
3. (a) What is tool life? Explain the different types of tool wear. 10
- (b) Explain the purpose and types of cutting fluids and effect of cutting fluids on tool life. 10

SECTION - B

4. (a) With the help of neat sketch, explain the material removal, surface finish, advantages and application in Electrochemical grinding. 10

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<http://www.HaryanaPapers.com> the help of neat diagram, explain the working of LBM. What are the critical parameters and limitations of LBM? 10

5. (a) How to determine that the jig and fixtures for a particular application will be economical? What are the advantages of jigs and fixtures? 10
- (b) How work pieces are located? What is meant by 3-2-1 principle of location? What is the best method to locate a rough surface? 10

SECTION - C

6. (a) Explain the two axes part programming for milling operation with example 10
- (b) Explain the classification on NC system. Also explain the CNC and DNC systems. 10
7. (a) Explain in detail how programming is done for NC machine tool? 10
- (b) Discuss the advantages of CNC system. 10

SECTION - D

8. Explain the following: 20
- (i) Definition, concept and working of group technology.
- (ii) Stages for adopting group technology.

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P. T. O.