

REG. NO: .....

NAME : .....

**VIII SEMESTER B.TECH DEGREE EXAMINATION, APRIL 2017**

**13. 804 COMPUTER INTEGRATED MANUFACTURING (MU)**

**(2013 Scheme - Model Question Paper)**

**Time: 3 Hours**

**Max. Marks: 100**

**Part A**

*(Answer all questions; each carries 2 marks)*

1. Define the concept of CIM.
2. Explain programmable Automation.
3. Give the scope of CAD/ CAM in industry
4. Write a short note on OPITZ coding system
5. Compare manual process planning and computer aided process planning
6. Explain the concept of group technology.
7. Explain any four G codes used in NC system.
8. What are reticulating ball screws?
9. List any 4 basic configurations available in a robot.
10. Write a short note on CMM

**(10 X 2= 20Marks)**

**Part B**

*(Answer any ONE FULL question from each module each carries 20 marks)*

**MODULE I**

- 11.(a) Differentiate between hierarchical DBMS and the relational DBMS.
- (b) Explain the CAD/CAM activities

**(2X 10 = 20Marks)**

**OR**

- 12.(a) Explain the important elements of CIM system.
- (b) Describe the nature of CIM systems and the types of manufacturing systems in CIM.

**(2X 10 = 20Marks)**

**MODULE II**

- 13.(a) Explain the different elements of Computer Aided Process Planning.
- (b) Briefly discuss the various benefits of implementing a GT in a firm. Also Bring out the advantages and disadvantages of using GT.

(2X 10 = 20Marks)

OR

14. (a) Explain the role of group technology in CAD/ CAM integration.  
(b) Describe retrieval and generative CAPP in detail

(2x10=20 Marks)

**MODULE III**

15. (a) Explain Computer Numerical Control in detail. Differentiate CNC and DNC  
(b) Explain briefly about the APT language

(2x10=20 Marks)

OR

16. Write a part program to produce the component as shown in the fig

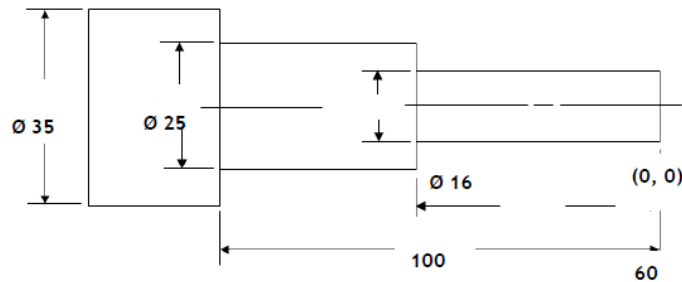


Figure : Turning Operation

(20 Marks)

**MODULE IV**

- 17.(a) Describe the various methods of programming robots  
(b) Explain the operation of 'machine vision' system

(2x10=20 Marks)

OR

- 18.(a) Write short notes on:

- (1) AGV
- (2) Expert system
- (3) CMM.

(15

Marks)

(b) What the various types of FMS layout? Briefly discuss them.

**(5 Marks)**

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