(Pages : 2) **E – 2376**

Reg. No. : .....

Name : .....

Eighth Semester B.Tech. Degree Examination, May 2018
(2013 Scheme)
13.804 : COMPUTER INTEGRATED MANUFACTURING (MU)

Time : 3 Hours Max. Marks : 100

Instructions *: 1) Part **A** – Answer **all** questions.*
*2) Part **B** – Answer **any one full** question from **each** Module.*

PART – A **(10×2=20 Marks)**

1. What is meant by parametric modeling ?
2. What is the role of CIM in manufacturing ?
3. What are the benefits of group technology ?
4. What is the role of GT in CIM environment ?
5. What are the basic approaches of CAPP ?
6. Distinguish point to point and continuous path CNC control.
7. What is a machining centre ? How it differs from conventional CNC milling machine ?
8. Write any four M codes.
9. Explain the term adaptive control.
10. List out the advantages of implementing FMS.

PART – B **(4×20=80 Marks)**

Module – I

11. a) Describe the need for CIM and issues addressed by CIM. **10**
    b) Explain the changes in manufacturing and management scenes in the recent past that led to the development of CIM. **10**

OR

12. a) What is network ? And explain various advantages of network. **10**
    b) Explain CIMOSA (Computer Integrated Manufacturing Open System Architecture) model with neat diagram. **10**

P.T.O.

Module – II

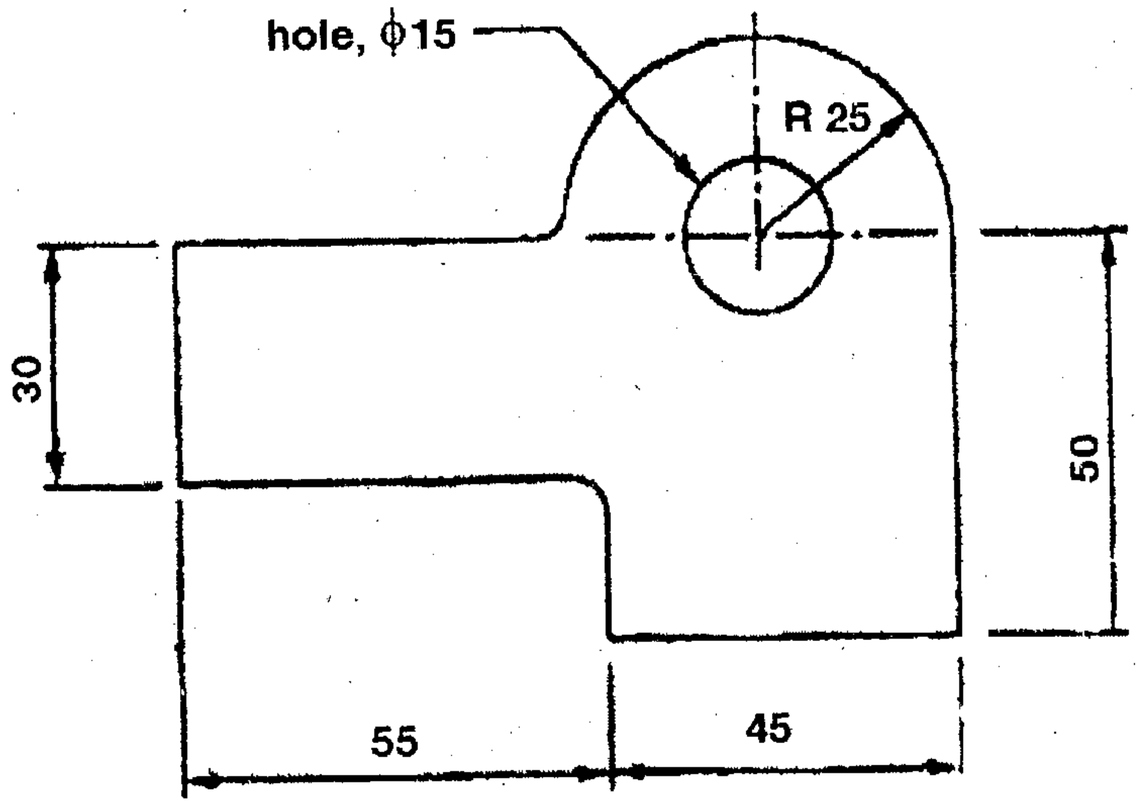
13. a) Explain why the GT is important in achieving CAD and CAM integration ? **10**
    b) Explain retrieval and generative CAPP systems. **10**

OR

14. Explain in detail of the following :
    OPTIZ coding system. **5**
    MICLASS. **5**
    DCLASS. **5**
    PFA. **5**

Module – III

15. Write a complete APT part program to machine the outline of the geometry and drill a hole as shown in Figure. The component is 5 mm thick. The end mill used is 10 mm in diameter and suitable drill. Assume suitable speed and feed for machining. **20**



OR

16. a) Explain constructional features of linear slides of CNC machines. **10**
    b) Explain the code used for the following in CNC part program with example. **10**
    Circular interpolation in XY plane
    Tool length compensation.
    Absolute programming.

Module – IV

17. a) Explain various components of FMS ? And list out applications, advantages, disadvantages of FMS. **10**
    b) Explain about various factors to be considered while designing a Automated Retrieval system. **10**

OR

18. a) What are the concepts of basic material requirements planning. **10**
    b) Explain the constructional features of CMM with neat schematic. **10**
