

Reg. No. :

Name :

**Eighth Semester B.Tech. Degree Examination, May 2013
(2008 Scheme)**

08.806.10 : FLEXIBLE MANUFACTURING METHODS (MPU)

Time : 3 Hours

Max. Marks : 100

Instructions : 1) Answer **all** questions from Part A.

2) Answer **one** question from **each** module in Part B.

PART – A

1. What are programmable controllers ?
2. What are the advantages of CAD over comentional systems ?
3. What is APT language ?
4. Describe type coding and format.
5. Enlist various types of FMS.
6. Describe the development of manufacturing systems.
7. What is automated guided vehicles ?
8. How precision is controlled in FMS ? _____
9. What is meant by simulation ?
10. Describe about economics of FMS.

(10×4=40 Marks)

**PART – B****Module – I**

11. a) Describe various types of co-ordinate systems used in NC.
b) Describe computer assisted part programming.
12. a) Describe about interactive graphics used in NC programming.
b) Explain various application of Numerical control.

Module – II

13. a) Describe functions of area controller in FMS.
b) Explain with neat sketches various FMS layouts.
14. a) With neat sketches explain palets and fixtures.
b) Explain about programming of robots.

Module – III

15. a) Describe various steps to develop FMS.
b) Describe Artificial Intelligence.
16. Prepare a roadmap to implement FMS in an automobile industry of repute.

(20×3=60 Marks)