

EIGHTH SEMESTER B-TECH DEGREE EXAMINATION

(2013 Scheme)

(Elective-V) 13.806.5: FLEXIBLE MANUFACTURING METHODS (M)

Time: 3 hours

Marks: 100

PART A

[Answer **all** questions, each question carries **2 marks**] (10 x 2 = 20 Marks)

1. Enumerate the merits and demerits of CAD
2. Write memory devices and its types in computer hardware?
3. Classify numerical control machines and write its advantages
4. Explain the principle of numerical control machines
5. Discuss about punched tape coding systems
6. Classify industrial robots based on its configuration
7. Give details about group technology
8. Illustrate about cellular manufacturing
9. Explain different types of flexibility in manufacturing in FMS concept
10. Applications of artificial intelligence

PART B

[Answer **four** questions, each question carries **20 marks**] (4 x 20 = 80 Marks)

Module-I

11. a) Elucidate the applications of computer in design (14)
b) Write any two output devices in detail (6)

(OR)

12. a) Explain Programmable Controllers (10)
b) List out the components of NC systems (10)

Module-II

13. Discuss Automatically Programmed Tool (APT) (20)

(OR)

14. Write down NC part programming? Explain its types (20)

Module-III

15. a) List out the components of FMS and explain their role in FMS (14)
b) Explain the applications and benefits of FMS (6)

(OR)

16. a) Give explanation about Automated Guided Vehicle (AGV) systems (14)
b) Discuss material handling and write its equipments (6)

Module-IV

17. a) Write about manning of FMS (10)
b) Explain Tool Management in FMS (10)

(OR)

18. a) Discuss about FMS design (10)
b) Give details about Economics of FMS (10)