

M.E. Second Semester (Mechanical Engineering (CAD / CAM)) (F.T.) (CGS)

13497 : Elective Flexible Manufacturing System : 2 MCC 5

P. Pages : 1

Time : Three Hours



AW - 3468

Max. Marks : 80

- Notes :
1. Answer **three** question from Section A and **three** question from Section B.
 2. Due credit will be given to neatness and adequate dimensions.
 3. Assume suitable data wherever necessary.
 4. Illustrate your answer necessary with the help of neat sketches.

SECTION – A

1. a) Describe FMS planning and design. Discuss various factors considered in it. 7
b) State and define types of flexibility in manufacturing. 7
2. a) Compare FMS with TLM. Discuss their benefits. 7
b) What do you mean by programmable automation and flexible automation. 6
3. a) Explain the role of computer in FMS. 6
b) Explain principle benefits of FMS. 7
4. a) What is FMM, FMC, FMG and FEMAS? Also explain its area of application. 7
b) Explain the following terms :- 6
i) Turning module. ii) Milling module.
5. a) Describe function of material handling and storage system in FMS. 6
b) Explain various machine tools used in FMS workstation. 7

SECTION – B

6. a) What are various functions of AGVS? 7
b) How traffic control and safety is achieved in FMS. 7
7. a) Define Automated Guided Vehicle System (AGVS). What are various types of AGVS. 6
b) What is the role of computer in AGVS? Discuss. 7
8. a) Explain WIP storage and storage with manufacturing. 6
b) Explain with neat sketch embedded wire guidance technique of AGV. 7
9. a) Classify various AGVS and describe any one of them. 7
b) What are applications of AS/RS. 6
10. a) State various modelling and analysis of FMS. Describe any one. 6
b) Describe computer control of FMS. 7
