GIET UNIVERSITY, GUNUPUR – 765022

M. Tech (Third Semester – Regular) Examinations, December – 2020

MPEMT 3023 - FLEXIBLE MANUFACTURING SYSTEMS

(Manufacturing Technology)

Time: 2 hrs   Maximum: 50 Marks

The figures in the right hand margin indicate marks.

PART – A   **(2 x 10 = 20 Marks)**

Q.1. Answer *ALL* questions

a. Define FMS.

b. State the merits of FMS.

c. Give the classification of FMS layout.

d. Explain dual line layout.

e. Define CMM.

f. List the parts of VMC.

g. What is the role of conveyors in FMS?

h. Explain the mechanism for tool collision avoidance.

i. What do you mean by scheduling?

j. What do you mean by load balancing?

PART – B   (5 x 6 = 30 Marks)

Answer *ANY FIVE* questions   Marks

2. Discuss the type of layout used in an automobile shop floor.   (6)

3. Discuss the applications of FMS   (6)

4. What is Automated Storage Retrieval System (ASRS)? Discuss its functions.   (6)

5. Explain the working of processing stations.   (6)

6. Discuss the working and construction of CMM.   (6)

7. What is AGV? Discuss about different types of AGV with its application.   (6)

8. Write about the significance of tool monitoring and fault detection.   (6)

9. Explain the role of simulation in FMS.   (6)

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