

MF 5102- Computer Integrated Manufacturing Systems

Important 13mark questions

Unit-I

1. Explain the suitable example, how a solid model is generated using boundary representation and write the advantages and disadvantages of solid modeling?
2. Consider a point P (3,2) in a coordinate plane. Perform reflection of the point "P" through y axis and through x axis?
3. Discuss about the operator input devices used at the graphics workstation?
4. Write in detail about the production performance metrics?
5. What are the steps involved in designing and manufacturing a product?

Unit-II

1. With neat sketch explain the seven layers of OSI model (computer networking in CIM)?
2. Explain the components of local area network and network topologies?
3. Explain the inputs to MRP and various MRP outputs. Also list the various benefits of MRP?
4. Explain in detail about the Computer Aided Process Planning?
5. Distinguish the features of variant and generative CAPP systems?

Unit-III

1. Explain about parts classification coding?
2. Describe about the OPTIZ coding system?
3. Explain in detail about production flow analysis?
4. Enumerate the role of GT in CAD/CAM integration?
5. Analyse the rank order clustering technique to the part-machine incidence matrix in the following table to identify logical part families and machine groups. Components are identified by letters and machines are identified numerically?

Machine	Components						
	A	B	C	D	E	F	G
M1		1		1			
M2			1		1		
M3	1	1		1			1
M4	1		1			1	
M5			1	1	1	1	

unit-IV

1. Explain about factory data collection system?
2. Explain about the bar code printers and RFID with its application?
3. Define FMS and explain in detail about the FMS components?
4. Explain the vehicle guidance technology of AGVs?
5. Discuss the functions, application, advantages and disadvantages of a FMS?

Unit-V

1. With neat sketch explain in detail about direct digital control?
2. Write the short notes on Cost planning and control?
3. Write a shot notes on inventory management?
4. Explain in detail about the types of robot part programming?
5. Discuss about SCARA Robots?