

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/  
COMMERCIAL PRACTICE, APRIL - 2025**

**COMPUTER INTEGRATED MANUFACTURING**

[Maximum marks: 75]

[Time: 3 Hours]

**PART A**

**I. Answer all the following questions in one word or one sentence. Each question carries 1 mark.**

**(9 x 1 = 9 Marks)**

		Module outcome	Cognitive level
1	Manufacturing approach of using computers to control the entire production process.	M1.01	U
2	Process or procedure accomplished without human assistance is known as .....	M1.02	U
3	..... perform the feedback function in a closed loop control system.	M1.02	R
4	In order to gets a new product on the market, the entire process of thinking, creating, planning and commercializing it is known as .....	M2.01	U
5	Write any two output devices in CAD hardware system.	M2.02	U
6	Expansion of CAM & CAPP.	M3.01	R
7	The full form of SCARA is .....	M3.04	U
8	..... is the art and science of conveying, elevating, positioning, transporting, packaging and storing of materials.	M4.01	U
9	Inspection probe and CMM are example of ..... type of automated inspection systems.	M4.02	R

**PART B**

**II. Answer any eight questions from the following. Each question carries 3 marks.**

**(8 x 3 = 24 Marks)**

		Module outcome	Cognitive level
1	Mention the factors to be considered while implementing CIM.	M1.01	U
2	Name various levels of automation.	M1.02	U
3	Write short notes on USA principle.	M1.03	R
4	Describe product development.	M2.01	U
5	State any three advantages of CAD.	M2.02	R
6	List the benefits of group Technology.	M3.01	R
7	Explain machining centers.	M3.04	U

8	Explain degree of freedom of a robot.	M3.04	U
9	Write short notes on carousel storage systems.	M4.01	U
10	Describe non-contact type inspection technology.	M4.02	R

### PART C

**Answer all questions. Each question carries seven marks.**

**(6 x 7 = 42 Marks)**

		Module outcome	Cognitive level
III	List various elements of Computer Integrated Manufacturing. <b>OR</b>	M1.01	U
IV	Discuss the various reasons for automation.	M1.02	U
V	Describe about common types of sensors used in automation. <b>OR</b>	M1.02	R
VI	Reveal your understanding about automation migration strategy.	M1.03	U
VII	Explain various geometric modeling techniques. <b>OR</b>	M2.02	R
VIII	Explain classification of Rapid prototyping technology.	M2.02	U
IX	Explain the Variant and Generative techniques in CAPP. <b>OR</b>	M3.02	R
X	Discuss the advantages and disadvantages of CNC machine.	M3.04	U
XI	Describe Master Production Schedule (MPS). <b>OR</b>	M3.03	U
XII	Classify robots on the basis of physical configuration.	M3.04	U
XIII	Write in detail about AS/RS and its components. <b>OR</b>	M4.01	R
XIV	Explain Coordinate measuring Machine in detail.	M4.02	R

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