

Model Question Paper-2 with effect from 2022-23 (CBCS Scheme)

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**Sixth Semester B.E. Degree Examination
Automation in Manufacturing**

TIME: 03Hours

Max. Marks: 100

Note: 01. Answer any FIVE full questions, choosing at least ONE question from each MODULE.

		Module -1	CO	*Bloom's Taxonomy Level	Marks
Q.01	a	Define Production systems. Illustrate the Manufacturing support system with the help of a diagram.	CO 1	L2	10
	b	Explain ten strategies of Automation.	CO 1	L2	10
OR					
Q.02	a	Define Manufacturing. Explain different manufacturing operations.	CO 1	L2	10
	b	Define the following i. Production rate ii. Cycle time iii. Production capacity iv. Utilization v. Availability	CO 1	L2	10
Module-2					
Q.03	a	Briefly Describe Basic Elements of Automated systems with block diagram.	CO 1	L2	10
	b	Differentiate Continuous and Discrete Industrial Control.	CO 1	L3	10
OR					
Q.04	a	Explain Different levels of Automation in Manufacturing.	CO 3	L2	10
	b	Write a short note on the Modern Quality Control methods.	CO 3	L3	10
Module -3					
Q.05	a	Describe different components of Manufacturing system.	CO 3	L2	10
	b	Illustrate with an example of single station manufacturing cell in a manufacturing system.	CO 3	L3	10
OR					
Q.06	a	What is Retrieval Computer Aided Process Planning system.	CO 4	L2	10
	b	Explain Just in time production system in manufacturing.	CO 4	L2	10

Module-4					
Q.07	a	Write a short note on Automated Inspection in Manufacturing.	CO 4	L2	10
	b	Describe the Applications and Benefits of CMM.	CO 4	L3	10
OR					
Q.08	a	Explain different stages in machine vision system with a neat block diagram.	CO 1	L2	10
	b	Illustrate the working of any two nonoptical inspection techniques.	CO 1	L2	10
Module-5					
Q.09	a	Write a short note on Cellular manufacturing.	CO 2	L3	10
	b	Illustrate the advantages and Limitations of Group technology	CO 2	L3	10
OR					
Q.10	a	What is FMS? Explain the benefits and Application of FMS	CO 2	L3	10
	b	Explain different components of FMS system in manufacturing.	CO 2	L2	10