CBCS SCHEME - Make-Up Exam

USN | | | | | | | | | | |

BMT602

Sixth Semester B.E/B.Tech. Degree Examination, June/July 2025
Industrial Robotics

Time: 3 hrs. Max. Marks:100

Note: *1. Answer any FIVE full questions, choosing ONE full question from each module.*
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
1	a.	Define a Robot. Classify Robots based on their configuration.	10	L1	CO1
	b.	Explain the different Robot drive systems.	10	L2	CO1
		OR			
2	a.	Illustrate the components of basic control system.	10	L2	CO1
	b.	Explain the application areas of Robot.	10	L2	CO1
		Module – 2			
3	a.	With a block diagram explain the configuration of a Robot Controller.	10	L2	CO2
	b.	Discuss Denavit – Hartenberg Notations.	10	L2	CO2
		OR			
4	a.	Explain the consideration in Gripper selection and design.	10	L2	CO2
	b.	Discuss the Features of sensors in Robotics.	10	L2	CO2
		Module – 3			
5	a.	Explain the Methods of Robot Programming.	10	L2	CO3
	b.	Discuss the various methods of defining positions in space.	10	L2	CO3
		OR			
6	a.	Explain the Goals of AI Research.	10	L2	CO3
	b.	Explain the Capabilities and Limitations of lead through programming method.	10	L2	CO3
		Module – 4			
7	a.	List and explain different Robot Cell Layouts.	10	L1	CO4
	b.	Explain the various considerations in workcell design.	10	L2	CO4
		OR			
8	a.	List and explain the work cell control.	10	L1	CO4
	b.	Explain Robot cycle time. Analysis.	10	L2	CO4
		Module – 5			
9	a.	Explain the Features of Welding Robot.	10	L2	CO5
	b.	Discuss various sensors in Robotic arc welding process.	10	L2	CO5
		OR			
10	a.	Explain the benefits of Robot Arch welding and Robot Spray Coating.	10	L1	CO5
	b.	Discuss various parts joining tasks of a robot.	10	L1	CO5

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