

Module – 4

Q.7	a.	Explain the differences between ferrous and non-ferrous metals along with examples and applications.	10	L2	CO4
	b.	Write short notes on polymers and shape memory alloys.	10	L2	CO4

OR

Q.8	a.	What is welding? Explain electric arc welding with a neat sketch.	10	L2	CO4
	b.	Explain clearly the differences between welding, soldering and brazing.	10	L2	CO4

Module – 5

Q.9	a.	Sketch and explain the following configuration of Robots: i) Cartesian co-ordinate configuration. ii) Polar cylindrical co-ordinate configuration.	10	L2	CO5
	b.	Define the term Automation. Explain briefly the following automation considering examples: i) Flexible ii) Fixed iii) Programmable.	10	L2	CO5

OR

Q.10	a.	Define Robot. List the advantages and disadvantages of Robotics.	10	L1	CO5
	b.	Explain the following: i) Smart manufacturing and Industrial IOT. ii) Open loop and closed loop systems.	10	L2	CO5

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