

U.S.N.

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

June 2025 Semester End Main Examinations

Programme: B.E.

Semester: VI

Branch: Industrial Engineering & Management

Duration: 3 hrs.

Course Code: 23IM6AEIND / 22IM6PCIBA

Max Marks: 100

Course: INDUSTRY 5.0

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.			UNIT - I	<i>CO</i>	<i>PO</i>	Marks
	1	a)	Write succinctly about the major elements of business transformation	<i>CO1</i>	<i>PO1</i>	10
		b)	What is a need for business transformation and how is it accomplished? Elaborate.	<i>CO1</i>	<i>PO1</i>	10
			OR			
	2	a)	Discuss the challenges that are faced during the Automation of business processes	<i>CO1</i>	<i>PO1</i>	10
		b)	How a robotic process automation (RPA) is carried out as a part of transformation? elaborate	<i>CO1</i>	<i>PO1</i>	10
			UNIT - II			
	3	a)	Elaborate on the major developments during second industrial revolution	<i>CO1</i>	<i>PO1</i>	10
		b)	Brief on COBOTS and also highlight the applications of them.	<i>CO1</i>	<i>PO1</i>	10
			OR			
	4	a)	Elaborate on the challenges and benefits of Industry 5.0	<i>CO1</i>	<i>PO1</i>	10
		b)	Explain the salient features of Industry 4.0 and 5.0.	<i>CO1</i>	<i>PO1</i>	10
			UNIT - III			
	5	a)	What is the scope of AR in plastic industry and how AM is advancing in plastic manufacturing industry?	<i>CO1</i>	<i>PO1</i>	10
		b)	Discuss how an IIoT can be applied in Valve Manufacturing Industry	<i>CO1</i>	<i>PO1</i>	10

			OR			
	6	a)	Elaborate on the outcome of Industrial transformation in the plastic extrusion industry	<i>COI</i>	<i>POI</i>	10
		b)	How AR/VR technology can improve MRO in Aviation GSE? Discuss	<i>COI</i>	<i>POI</i>	10
			UNIT - IV			
	7	a)	Brief on the following quality methodologies followed in automotive sectors i) Six Sigma ii) Toyota Production System (TPS) iii) Lean manufacturing	<i>COI</i>	<i>POI</i>	10
		b)	Elaborate on the Quality methodologies followed in different regions across the globe in an automotive industry	<i>COI</i>	<i>POI</i>	10
			OR			
	8	a)	What is the necessity for process transformation and what is impact on automotive sector	<i>COI</i>	<i>POI</i>	10
		b)	How a World-class manufacturing (WCM) ideology impacts automotive industry? Elaborate.	<i>COI</i>	<i>POI</i>	10
			UNIT - V			
	9	a)	With respect to Industrial transition strategy planning connected to internal factors, how a SWOT analysis is carried out?	<i>COI</i>	<i>POI</i>	10
		b)	What is the ultimate goal of Industry 4.0 to Industry 5.0 transformation and how is it done?	<i>COI</i>	<i>POI</i>	10
			OR			
	10	a)	Justify the business need for industrial transition.	<i>COI</i>	<i>POI</i>	10
		b)	What is the secret of establishing an affordable business strategy? How a PESTLE analysis of industrial transformation is done?	<i>COI</i>	<i>POI</i>	10
