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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.

UNIT - I			CO	PO	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

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.

		OR			
6	a)	Elaborate on the outcome of Industrial transformation in the plastic extrusion industry	CO1	PO1	10
	b)	How AR/VR technology can improve MRO in Aviation GSE? Discuss	CO1	PO1	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	CO1	PO1	10
	b)	Elaborate on the Quality methodologies followed in different regions across the globe in an automotive industry	CO1	PO1	10
		OR			
8	a)	What is the necessity for process transformation and what is impact on automotive sector	CO1	PO1	10
	b)	How a World-class manufacturing (WCM) ideology impacts automotive industry? Elaborate.	CO1	PO1	10
		UNIT - V			
9	a)	With respect to Industrial transition strategy planning connected to internal factors, how a SWOT analysis is carried out?	CO1	PO1	10
	b)	What is the ultimate goal of Industry 4.0 to Industry 5.0 transformation and how is it done?	CO1	PO1	10
		OR			
10	a)	Justify the business need for industrial transition.	CO1	PO1	10
	b)	What is the secret of establishing an affordable business strategy? How a PESTLE analysis of industrial transformation is done?	CO1	PO1	10
