	P.E.S. COLLEGE OF ENGINEERING **(AN AUTONOMOUS INSTITUTE)** **CHH. SAMBHAJINAGAR-431002** **Regular Winter Examination – 2025** **Course: F.Y.M.Tech.** **Branch :**M.Tech. (Advanced Manufacturing & Mechanical System Design)**Semester : I** **Subject Code & Name:** MTPESAMSDPE104CT Lean Manufacturing **Max Marks: 60** **Date:** **Duration: 3 Hr.**		
	Instructions to the Students: 1. *All the questions are compulsory.* 2. *The level of question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in ( ) in front of the question.* 3. *Use of non-programmable scientific calculators is allowed.* 4. *Assume suitable data wherever necessary and mention it clearly.*		
		(Level/CO)	Marks
Q. 1	**Solve Any one of the following.**		
A)	thinking principles-06 and their significance -06	(CO1 – K2)	**12**
B)	background -06 and origin-06	(CO1 – K2)	**12**
Q.2	**Solve Any one of the following.**		
A)	importance of alignment -06 systems view in lean philosophy-06	(CO2 – K2)	**12**
B)	Describe the structure -06 and objectives of Toyota Production System-06	(CO2 – K2)	**12**
Q. 3	**Solve Any one of the following.**		
A)	Explain lean production preparation -06 and system assessment-06	(CO3 – K2)	**12**
B)	Discuss value stream mapping as a lean assessment tool-12	(CO3 – K2)	**12**
Q.4	**Solve Any one of the following.**		
A)	Explain pull system -06 cellular manufacturing in lean production-06	(CO4 – K2)	**12**
B)	Describe Poka–Yoke -06 applications in quality improvement-06	(CO4 – K2)	**12**
Q. 5	**Solve Any one of the following.**		
A)	Discuss the role of teamwork -06 training in lean implementation-06	(CO5 – K2)	**12**
B)	Explain visual management -06 standardization in lean systems-06	(CO5 – K2)	**12**
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