Seat No.:	Enrolment No
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GUJARAT TECHNOLOGICAL UNIVERSITY

	ME	- SEMESTER- III • EXAMINATION – SUMMER 2015	
Subject Co			015
-		Lean Manufacturing System and Implementation to 5:00 pm Total Marks:	70
1. At 2. M	ake su	all questions. itable assumptions wherever necessary to the right indicate full marks	
Q.1	(a)	Name and explain the original seven wastes of TPS. Also explain some of the wastes added later in this list.	07
	(b)	Discuss the Lean Manufacturing merits and demerits.	07
Q.2	(a) (b)	Explain the features and benefits of KANBAN system. Define TPM. What is OEE? How is it calculated? OR	07 07
	(b)	Clearly differentiate between Preventive Maintenance, Corrective Maintenance and Maintenance Prevention. Compare TQM and TPM.	07
Q.3	(a)	What are the four basic functions of Setup time? Enlist the eight principle SMED techniques for reducing setup time.	07
	(b)	What do you mean by 2 card system? Explain with a simple example. OR	07
Q.3	(a)	Compare master production schedule with aggregate planning.	07
	(b)	Explain any four principles of Value stream mapping.	07
Q.4	(a) (b)	What is meant by JIT? Where is it implemented? Define and explain following with respect to Lean Manufacturing. (i) Autonomation (ii) Takt time (iii) Kaizen	07 06
Q.4	(a)	OR Why do we implement lean manufacturing? Mention the	07
	(b)	benefits of implementing lean manufacturing. Briefly explain any five tools/techniques of Lean manufacturing.	06
Q.5	(a) (b)	Explain the five phases of Six sigma. What are the drawbacks and benefits of MRP? OR	08 07
Q.5		Write short notes on 1. Pillars of TPS 2. 5S	15

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