

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VIII(NEW) EXAMINATION – SUMMER 2019****Subject Code:2180207****Date:09/05/2019****Subject Name:Applied Industrial Engineering In Automobile****Time:10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		MARKS
Q.1	(a) Define the term: 1) Standardisation 2) Simplification	03
	(b) Write Objectives of Production Planning and Control.	04
	(c) What is quality circle? Discuss its basic philosophy.	07
Q.2	(a) Define the term process planning	03
	(b) Explain various tools for increasing productivity.	04
	(c) What is SWOT analysis and why is it required?	07
	OR	
Q.3	(c) Why a job is broken down in elements? Discuss it.	07
	(a) Define Pareto analysis and state importance of it.	03
	(b) What is Economic Order Quantity?	04
	(c) Explain cost of quality and discuss appraisal and failure cost.	07
	OR	
Q.3	(a) State use of PDCA for continues improvement tool.	03
	(b) Define:	04
	1) Basic Time	
	2) Normal Time	
	3) Observed Time	
	4) Standard Time	
	(c) What is FMEA? Discuss its importance with suitable example.	07
Q.4	(a) Explain the concept of 6σ in brief and it's importance.	03
	(b) Define the following terms:	04
	a) Reliability	
	b) Failure rate	
	c) MTTF	
	d) MTBF	
	(c) Explain the concept of '5S' for implementation in Automobile dealership workshop.	07
	OR	
Q.4	(a) Discuss the origin and development of OR.	03
	(b) What are the limitations of OR.	04
	(c) Explain Just in time concept of manufacturing.	07
Q.5	(a) State benefits of implementing ISO 14000 in an organization.	03
	(b) Differentiate between OPC and FPC	04
	(c) Write a short note on 1)PMTS 2) MTM	07

- Q.5**
- (a) Define SCM. Explain the need for SCM. **03**
 - (b) State therbligs with their abbreviation and symbol of each. **04**
 - (c) A firm produces three products P,Q,and R, each of which need to be processed in three departments, milling, grinding, and packaging. Each unit of product P requires four, five, and three hours in each of the three departments. Likewise, product Q requires eight, five and five hours, while product R requires two, five, and six hours in the three departments respectively. Everyday 96,108, and 150 hours are available in the three departments. The unit contribution of the products P,Q, and R is Rs 6, Rs12, and Rs 8 respectively. Formulate the given problem as an LPP and find the solution. **07**

www.FirstRanker.com