

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VIII (NEW) - EXAMINATION – SUMMER 2017

Subject Code: 2180207

Date: 04/05/2017

Subject Name: Applied Industrial Engineering in Automobile (Department Elective II)

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.

- Q.1 (a) List the various Therbligs with their symbols. Explain applications of micro motion study. 07
(b) Describe concept of just in time manufacturing. 07

- Q.2 (a) What is Quality planning? Discuss about SWOT Analysis briefly. 07
(b) Discuss '5S' as a workplace management tool for continuous improvement. 07

OR

- (b) Describe content and benefits of ISO 14000. 07

- Q.3 (a) Describe Quality function Deployment (QFD) and state its benefits. 07
(b) What is Quality Circles? Discuss its basic philosophy. 07

OR

- Q.3 (a) Enlist different models of TQM and discuss about any one briefly. 07
(b) Define Reliability and Discuss about Failure rate analysis. 07

- Q.4 (a) What is Cost of Quality? Explain Failure cost and Appraisal cost. 07
(b) Draw Ishikawa diagram for poor fuel economy (effect) - cause as a man, machine, method, materials & environment. 07

OR

- Q.4 (a) Explain stages of FMEA. 07
(b) Differentiate between method study and work measurement. How is productivity increased by these methods? 07

- Q.5 (a) Explain concept of Six Sigma. 07
(b) Consider the transportation problem shown in table below and Find the initial basic feasible solution using Northwest corner method. 07

Plant	1	2	3	4	5	Supply
1	20	4	32	28	20	3000
2	12	36	24	26	32	5000
3	16	8	28	24	20	8250
4	28	44	40	16	36	3750
Demand	3500	4000	2500	1500	4000	

OR

- Q.5 (a) Solve above transportation problem shown in table by Least cost cell method. 07
(b) Explain concept of KAIZEN. 07
