

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VIII (NEW) EXAMINATION – SUMMER 2022****Subject Code:2180207****Date:31/05/2022****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.
4. Simple and non-programmable scientific calculators are allowed.

- Q.1** (a) Define Scheduling, Dispatching and Sales forecasting. **03**
 (b) Differentiate between Job production and Batch Production **04**
 (c) Explain work study, Need of work study and Tools used for work study in context to automobile industry. **07**
- Q.2** (a) Elaborate Micro motion and Macro-motion study. **03**
 (b) Describe about Operations Process Chart with a neat diagram. **04**
 (c) Write short note on “Work measurement techniques” **07**
- OR**
- (c) Describe about Productivity and discuss any case study on automobile industry related to productivity. **07**
- Q.3** (a) Define Quality, Bench marking and Supply chain management **03**
 (b) Explain Pareto analysis with respect to problem solving tools. **04**
 (c) Illustrate “Fish-bone Diagram” with an industrial example. **07**
- OR**
- Q.3** (a) Explain Taguchi Techniques with reference design of Experiment. **03**
 (b) Describe about Poka yoke and Kaizan with reference to real life industry. **04**
 (c) Write short note on ISO 9000 - 14000 Series. **07**
- Q.4** (a) Define : MTTF, MTBF and MTTR in context to reliability. **03**
 (b) Explain Failure Mode & Effect Analysis – FMEA with example **04**
 (c) Illustrate tender methods along with examples. **07**
- OR**
- Q.4** (a) Explain Flow process Chart with a neat sketch. **03**
 (b) Write short note on Total Quality Management (TQM). **04**
 (c) Describe 5 S Principles with respect to real life application. **07**
- Q.5** (a) Explain Just in Time concept. **03**
 (b) Explain Bathtub curve with examples. **04**
 (c) Write short note on “Quality Circle” **07**
- OR**
- Q.5** (a) Define: Activity, Predecessor, Dummy activity. **03**
 (b) Explain North west corner method with suitable example. **04**
 (c) Write short note on CPM and PERT method. **07**
