

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V (NEW) EXAMINATION – SUMMER 2024****Subject Code:3152512****Date:21-05-2024****Subject Name:Industrial Engineering****Time:02:30 PM TO 05:00 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) What is the importance of learning the subject of Industrial Engineering? **03**
- (b) With figure explain A Travel Chart. **04**
- (c) Describe any THREE factors with a suitable example that affect the choice for site selection. **07**
- Q.2** (a) Define Productivity. How it differs from the Rate of Production? **03**
- (b) Give any FOUR differences between FPC and OPC. **04**
- (c) Write the steps involved in Method Study, **07**
- OR**
- (c) Assuming that the total observed time for an operation of assembling an electric switch is 1.00 min. If the rating is 120%, find the normal time. If an allowance of 10% is allowed for the operation, determine the standard time. **07**
- Q.3** (a) Explain Job Evaluation. Also, describe the objectives of the Job evaluation. **03**
- (b) Enlist methods of merit rating. Explain any ONE method in brief. **04**
- (c) What are different wage incentive plans? Give the advantage and disadvantages of the straight piece rate system. **07**
- OR**
- Q.3** (a) Why labor laws are necessary for Indian factories? **03**
- (b) Write important features of the Workmen's compensation act, of 1923. **04**
- (c) Write a brief note on the Payment of wages act, of 1936. **07**
- Q.4** (a) Give the meaning of(i) obsolete item (ii) surplus item (iii) scrap **03**
- (b) Explain any FOUR reasons for the generation and accumulation of obsolete, surplus, and scrap items. **04**
- (c) Discuss the disposal of scrap. **07**
- OR**
- Q.4** (a) What are the government incentives given to the entrepreneur in India? **03**
- (b) Explain the concept of entrepreneur and enterprise. **04**
- (c) If you want to open a start-up, which kind of start-up it would be? Justify **07**

- Q.5** (a) Discuss any THREE types of inspection. **03**
(b) Give the full form of TQM. Explain its benefits. **04**
(c) What are the SEVEN tools for quality control? **07**

OR

- Q.5** (a) What is statistical quality control? **03**
(b) Describe any one variable control chart. **04**
(c) Draw the OC curve and explain (i) Producer's Risk (ii) **07**
Consumer's Risk (iii) AQL (iv) LTPD
