

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI (NEW) EXAMINATION – WINTER 2018

Subject Code:2161907

Date:30/11/2018

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.

- Q.1**
- | | | |
|-----|---|-----------|
| (a) | Draw plant layout of ‘Automobile Repair and Service shop’. | 03 |
| (b) | Differentiate: Product Layout and Plant Layout. | 04 |
| (c) | List out the factors, which are considered for site selection for any industry. Apply and discuss the same for ‘Automobile component Manufacturing’ industry. | 07 |

- Q.2**
- | | | |
|-----|--|-----------|
| (a) | Discuss: Two Handed process charts | 03 |
| (b) | Prepare a list of “Therbligs” used in the industry. (Any Eight) | 04 |
| (c) | What do you mean by ‘Time Study’? Why it is essential? Discuss Pre-determined motion and time systems as a tool of ‘Time Study’. | 07 |

OR

- | | | |
|------------|--|-----------|
| (c) | In context of Work Study, explain ‘Normal Working Area and Work Place Design’. | 07 |
| Q.3 | (a) What is ‘Make or Buy’ Decision? Explain with suitable example. | 03 |
| | (b) Explain ‘Variables’ and ‘Attributes’ in context of quality control charts. | 04 |
| | (c) Discuss the reasons for ‘Low productivity’ in the organization. | 07 |

OR

- Q.3**
- | | | |
|------------|---|-----------|
| (a) | Explain exponential moving average method of forecasting with suitable data. | 03 |
| (b) | Write Explanatory note on: Process capability | 04 |
| (c) | Discuss the phases of Production, planning and control (PPC). | 07 |
| Q.4 | (a) Explain: Halsey Incentive Plan | 03 |
| | (b) What is ‘Job Evaluation’ and why it is necessary to carry out ‘Job Evaluation’? | 04 |
| | (c) Why Quality is essential for any product? Discuss the factors affecting quality of the product? | 07 |

OR

- Q.4**
- | | | |
|-----|--|-----------|
| (a) | Explain: Emerson’s efficiency Plan | 03 |
| (b) | Discuss: ‘Factor comparison method’ for Job evaluation. | 04 |
| (c) | Discuss the concept of ‘Quality circle’ for improving the quality through internal assessment. | 07 |

Q.5	(a)	Under which conditions, ‘Strike’ is not possible by employees as per Industrial dispute Act, 1947.	03
	(b)	Discuss major provisions of ‘Employee Provident Fund Scheme, 1952’.	04
	(c)	As an entrepreneur, prepare a project report on business opportunity on ‘Export – import business in India’.	07

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