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BBI1306

**Industrial Engineering**  
**(New) (1100, 1090, 1080)**

**P. Pages : 2**

**Time : Three Hours**

**Max. Marks : 100**

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answersheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Attempt **any two** sub question from each question.
5. Neat diagrams must be drawn wherever necessary.
6. Figures to right indicates full marks.

**UNIT - I**

1. a) Draw and Explain two handed process chart for the assembly of nut and Bolt. **10**
- b) List down the contributions made by F.W. Taylors and Gilbert in the growth of Industrial Engineering. **10**
- c) What factors should be considered for selecting the work to be studied in the method study. **10**

**UNIT - II**

2. a) Enlist important principles of good material handling system and discuss at least three of them. **10**
- b) Write short notes.
  - i) Factory Act 1948. **5**
  - ii) Factory Governing plant layout. **5**
- c) What is the relation between plant layout and material Handling system. **10**

**UNIT - III**

3. a) What factors are to be considered for preparing organisation chart of a typical PPC department of the firm ? **10**

- b) i) What do you mean by progress control ? What are the steps involved in it ? 5
- ii) What is difference between production planning and production control. 5
- c) Explain Bar chart and Gantt Chart. 10

**UNIT - IV**

4. a) What is Job Evaluation ? Explain in brief the steps in Job Evaluation. 10
- b) Define value and value Analysis ? Explain various types of the values. 10
- c) Explain Rowan plan and Halsey incentive plan. 10

**UNIT - V**

5. a) What is anthropometry ? State the principle in application of anthropometric data. 10
- b) Explain in details ergonomics consideration in design of work place layout. 10
- c) Explain the characteristic and various aspects of the man - machine system. 10

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