

**B.Tech. - VIEP - MECHANICAL ENGINEERING
(BTMEVI)**

Term-End Examination

June, 2018

00733

BIME-020 : INDUSTRIAL ENGINEERING

Time : 3 hours

Maximum Marks : 70

Note : Answer any five questions. All questions carry equal marks.

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1. (a) What are the applications in the area of Industrial Engineering ? Discuss the role of Industrial Engineering in modern factories. 7
 - (b) Define productivity. Discuss the factors affecting productivity with suitable examples. 7
 2. (a) Explain the various stages involved in a product life cycle. 7
 - (b) What are the various recording techniques involved in method study ? Explain any one in detail. 7
 3. (a) Explain the basic procedure for time study using a stop watch. 7
 - (b) Explain the principle of motion economy as applied to the use of the human body. 7

4. (a) Explain the ergonomic principles to be followed for the design of display control. 7
- (b) What is Fatigue ? What are the causes of fatigue ? What are the remedies to overcome fatigue ? 7
5. (a) What do you understand by therbligs ? Where are therbligs used ? Explain. 7
- (b) List the various types of quality control charts. Explain any one of them with the help of a suitable example. 7
6. (a) Describe the procedure for simple sampling plan and double sampling plan. 7
- (b) Discuss the procedure for product development. 7
7. Write short notes on any *four* of the following : $4 \times 3 \frac{1}{2} = 14$
- (a) Value Engineering
- (b) Chrono Cycle Graph
- (c) Acceptance Sampling
- (d) FAST Diagram
- (e) Product Design
- (f) Standardization
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