

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

Term-End Examination

00333

December, 2018

BIME-020 : INDUSTRIAL ENGINEERING

Time : 3 hours

Maximum Marks : 70

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

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1. (a) What are the application areas of Industrial Engineering ? Discuss the role of industrial engineering in modern factories. 7
 - (b) Explain partial productivity and total productivity. What measures would you suggest to improve the productivity of a firm ? 7
 2. (a) What do you understand by therbligs ? Draw the symbols for any six therbligs and write their applications. 7
 - (b) What is meant by inspection ? Discuss the objectives of inspection. 7

3. (a) Describe the step-by-step procedure of work measurement. 7
- (b) List the various methods of rating. Discuss the importance of performance rating in time-study. 7
4. (a) Explain the product development process. Discuss the benefits of concurrent engineering. 7
- (b) Define work measurement. What are the different techniques of work measurement? Explain them. 7
5. (a) What is string diagram? Explain its application with the help of a suitable example. 7
- (b) Explain the principles of motion economy as applied to the use of tools. 7
6. (a) List the various types of equality control charts. Explain any one of them with the help of suitable example. 7
- (b) Describe the procedure of single sampling plan and double sampling plan. 7

7. Write short notes on any *two* of the following :

7+7=14

- (a) Value Engineering
 - (b) Design for Manufacturing
 - (c) Product Standardisation
 - (d) Selective Inventory Management
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