

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

Term-End Examination

June, 2016

00020

BIME-020 : INDUSTRIAL ENGINEERING

Time : 3 hours

Maximum Marks : 70

Note : Attempt any five questions. All questions carry equal marks. Use of scientific calculator is permitted.

1. (a) What is Industrial Engineering ? Explain the role of an Industrial Engineer in an automobile manufacturing industry.
- (b) Define productivity. Discuss the factors affecting productivity with suitable examples. 7+7

2. (a) Define method study. Discuss in detail the procedure of conducting a method study.
- (b) What do you understand by micromotion study ? List out the tools and equipments used in micromotion study. 7+7

3. (a) Describe 'work sampling'. Discuss the advantages and limitations of work sampling.
- (b) What is performance rating ? List out the various factors affecting performance rating. 7+7
4. (a) Explain the importance of ergonomic studies in the sitting and standing positions of working.
- (b) What is fatigue ? Discuss the factors responsible for fatigue. What are the adverse effects of fatigue ? 7+7
5. (a) What is Statistical Quality Control (SQC) ? List out the various control charts under SQC. What are the uses of control charts ?
- (b) What is sampling inspection ? List out the various methods of sampling. Explain any two methods with examples. 7+7
6. (a) Explain the procedure of single sampling plan with the help of a flow chart. Give its merits and demerits.
- (b) What are the requirements of a good product design ? Explain the product development procedure. 7+7

7. Write short notes on any *two* of the following : 2×7=14

- (a) Process Chart Symbols and their applications
 - (b) Acceptance Sampling
 - (c) Value Engineering
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