

Roll No. ....

**24359**

**B. Tech. 6th Semester (ME)**

**Examination – May, 2014**

**Industrial Engineering**

**Paper : ME-312-F**

**Time : Three hours ]**

**[ Maximum Marks : 100**

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

**Note :** Attempt any *five* Questions in total, at least *one* question from each section. Question No. **1** is **compulsory**. Each question carries equal marks (20 marks).

**1. Explain the following :**

**20**

(a) Therbligs

(b) Financial Incentives

(c) Fixed and Variable cost

- (e) Statistical Quality Control .
- (f) Introduction to JIT
- (g) Management Information System
- (h) Objectives of PPC
- (i) Work Sampling
- (j) Gantt Chart

### SECTION – A

2. (a) Explain the various work sampling techniques in detail. 10
- (b) Discuss the various techniques of method study in detail. 10
3. (a) What do you mean by the term "Productivity" and explain the factors effecting productivity? 10
- (b) Describe the various methods of Job Evaluation and merit rating. 10

### SECTION – B

4. (a) Discuss the economic order quantity and economic batch quantity in detail. 10
- (b) Explain the following : 10
  - (i) ABC Analysis
  - (ii) FSN Analysis
5. (a) Explain the direct, indirect and overhead costs in detail. 10

### SECTION - C

6. (a) What is single, double and multiple sampling plan ? Explain. 10
- (b) What are X, R and P charts? Explain the process control charts for variables. 10
7. (a) Explain the concept of TQM and ISO-9000 and their importance in industries. 10
- (b) Explain the various methods of line and intermittent production systems. 10

### SECTION - D

8. (a) What is MIS ? Explain the importance of MIS and role of MIS in decision making. 10
- (b) Explain the following : 10
- (i) Organizing information systems
- (ii) System analysis and design.
9. (a) Explain in detail the concept of 3Ss - Standardization, Simplification and Specialization. 10
- (b) "Value Engineering is a powerful cost reduction tool" Justify. Discuss the various fields of application of value engineering. 10