

8. What is Management Information System and its importance in industry ? Discuss the organizational and system structure of MIS in detail.
9. Explain the following :
- (a) Role of Ergonomics in product design and development.
  - (b) Value engineering and its analysis.
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Roll No. ....

**24359**

**B. Tech. 6th Semester (ME)  
(Reappear) Examination – October, 2020**

**INDUSTRIAL ENGG.**

**Paper : ME-312-F**

***Time : 1.45 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 *three* questions. All questions carry equal marks.

1. (a) What is principle of motion economy ?
- (b) Name the various incentive payment scheme.
  - (c) What is Economic batch quantity.
  - (d) Define the Breakeven point.
  - (e) State difference between variable and attributes.
  - (f) What is FSN inventor control ?
  - (g) Name the different forecasting methods.

- (h) What is quality assurance system ?
  - (i) Define Standardization, Simplification and specialization.
  - (j) What is value engineering
2. (a) How does job evaluation help in developing an equitable wage structure ? What precautions should be observed in installing an evaluation scheme ?
- (b) "Productivity is a means of increasing the welfare of the nation". Justify the statement.
3. (a) Describe systematic procedure of work study, explaining all steps.
- (b) What do you understand by term rating in time study ? What are the various methods used in rating ? Describe them.
4. (a) What is economic order quantity ? Derive the formula for EOQ when shortage is allowed.
- (b) The rate of use of a particular raw material from stores is 20 units per year. The cost of placing and receiving an order is Rs. 40. The cost of each unit is Rs. 100. The cost of carrying inventory is

percent/Year is 0.16 and it depends upon average stock. Determine

- (i) Economic order quantity
  - (ii) If lead time is 3 months, calculate the order point.
5. The fixed cost for the financial year 2011-12 of an enterprise is Rs. 60000. The sales for this period are of Rs. 150000. The variable or direct cost per unit is Rs. 5. The unit sale price for the product is Rs. 15/- and number of units sold coincides with the expected volume of production. Construct the breakeven chart and determine : (i) Breakeven point (ii) How many minimum products should be sold to earn profits ? (iii) Profit earned for sales volume of Rs. 120000. (iv) Margin of safety.
6. Describe and explain the following :
- (i) Just in time manufacturing
  - (ii) Master Production schedule
7. (a) Explain the procedure for scheduling 'n' jobs on 'm' machines.
- (b) What do you mean by Total Quality Management ? Explain in detail.