Sr. No.....

Dec 2018

B.Tech., VI SEMESTER

INDUSTRIAL ENGINEERING (MU-310)

Time: 3 Hours **Max. Marks:60**

Instructions:
1. *It is compulsory to answer all the questions (2 marks each) of Part -A in short.*
2. *Answer any four questions from Part -B in detail.*
3. *Different sub-parts of a question are to be attempted adjacent to each other.*

PART -A

Q1 (a) State the techniques of method study. (2)

(b) Define Productivity. (2)

(c) Differentiate between fixed and variable costs. (2)

(d) Explain the economic order quantity. (2)

(e) Write down the objectives of sales forecasting. (2)

(f) Define MIS. (2)

(g) What is master production schedule? (2)

(h) What are factors affecting the productivity? (2)

(i) Name the models for inventory control. (2)

(j) Define the stock out risk. (2)

PART -B

Q2 (a) Discuss the role of an Industrial Engineer in a manufacturing company. (5)

(b) Discuss the principles of motion economy and its applications in plant layout. (5)

Q3 (a) What is Sales forecasting and what are various methods of Sales forecasting? (5)

(b) What are the characteristics of MIS? Explain the types of MIS Systems. (5)

Q4 (a) Explain the procedure by which scheduling 2 jobs in m machines can be done with suitable example (5)

(b) What do you understand by production planning and control? Discuss its main elements. (5)

Q5 (a) Describe break even chart and discuss the following: (5)

(i) Margin of safety

(ii) Profit volume ratio.

(b) The fixed costs for year 2006-2007 are 12,00,000/- and variable cost per unit is 50/- . The estimated revenues are 27,00,000/-. Each unit sells at Rs. 250. Find (5)

i) Break Even Point

ii) If Rs. 20,00,000/- will be the likely sales turn over the next budget period, calculate the contribution and profit.

Q6 (a) An organization expects to sell 200 units of an industrial product per year. The storage cost for per unit is Rs. 20 per year. Costs for ordering are Rs. 35 per order and the rate of interest is close to 10 percent per year. Total cost for one unit is Rs. 100. Determine the economic order Quantity. (5)

(b) What is EOQ? Derive the expression for EOQ when the demand of the item is uniform, the production rate is infinite and no stock-outs are allowed. (5)

Q7 Write short notes on (10)

(a) JIT

(b) FSN Analysis

(c) SDE Analysis

(d) VED Analysis

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