

Mechanical and Automation Dept.

Management of Manufacturing Systems (ETME-301)

Assignment No 1

Last Date of submission:

Q. No. 1 Define productivity. Explain the various types of productivity.

Q.No.2 What are the principles of organization? Discuss various types of organization structure.

Q. No. 3 Distinguish between Job Production, batch production and mass production.

Q.No.4 "Productivity is the key to prosperity and sense of well being of a Nation". Indicate five tangible gains of higher productivity.

Q. No. 5 Discuss various types of Layout. What are the conditions for which each type of Layout is appropriate and why?

Q. No. 6 Why plant location decisions are important to the organization. Also outline the advantages and disadvantages of urban, semi urban and rural locations.

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Assignment No 2

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Q.No.1 Compare prediction and forecasting. Discuss the various methods of forecasting.

Q. No. 2 The demand for six consecutive months for a product is as follows: 105, 109, 113, 118, 121, and 135. Establish a linear forecast. Determine the forecasted demand in 10th month. Also calculate the coefficient of determination and standard deviation for the line of best fit.

Q. No. 3 Write the short Note on the following

- a. Moving average method of sales forecasting
- b. Concept of scheduling
- c. Marketing strategies

Q.No.4 Explain the different types of inventory. Also define EOQ.

Q.No.5 ABC Corporation has got a demand for a particular part at 10000 units per year. The cost per unit is Rs.2 and it costs Rs. 36 to place an order and to process the delivery. The inventory carrying cost is estimated at 9 percent of average inventory investment. Determine:

1. Economic order quantity
2. Optimum number of orders to be placed per annum.

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Assignment No 3

Last Date of submission:

Q. No. 1 Define method study. Explain the procedure of method study.

Q.No.2 What is multi activity chart? Construct a multiple activity chart for the following machining operations

- a) Pick the job and place on vice (0.2 min.)
- b) Make the switch ON to tightly hold Part (0.08 min.)
- c) Make the switch ON start automatic cycle (0.08 min.)
- d) Machining on auto cycle (1.5 min.)
- e) Wait till vice opens automatically (0.08min.)
- f) Pickup machined job from vice (0.05min.)
- g) Keep it in try (0.05min.)

Q. No. 3 Write the short Note on the following

- a. Work sampling
- b. PMTS
- c. Allowances
- d. Therbligs

Q. No. 4 Explain the various recording techniques used in work study.

Q. No. 5 Describe the procedure for time study. Why is it important to maintain the time standards?

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Assignment No 4

Last Date of submission:

Q.No.1 Define cost and give the basis of classification of costs and explain the concept of cost centre and cost unit.

Q.No.2 Explain the term BEP giving its significance. Also write the basic assumptions made in BEP.

Q.No.3 ABC Company plans to sell an article at a local market. The articles are purchased at Rs.5 on the condition that all unsold articles shall be returned. The rent for the space is Rs.2000. The articles will be sold at Rs.9. Determine the number of articles which must be sold:

1. To break even
2. To earn Rs.400 as profit
3. If the company sells 750 articles, calculate the margin of safety and profit.

Q.No.4 What do you understand by term "Maintenance". Compare preventive and breakdown maintenance.

Q.No.5 Discuss the objectives of maintenance management in industry. How does maintenance help to increase the productivity?