

(b) A plant producing a line of hydraulic valves can supply the factory warehouse at the rate of 750 valves per month. The warehouse ships 3000 valves per year at a unit selling price of Rs. 300 and inventory carrying cost rate of 20%. What quantities should the warehouse order from the plant? (07)

7. (a) The XYZ company is investigating the decision whether to make or buy a plastic packaging which is currently being purchased at Rs. 7 each. The demand estimates are shown below :

Demand (Units)	20000	30000	40000	50000	60000
Chance(%)	10	30	40	15	5

The decision to manufacture in house costs the company an annual fixed cost of Rs. 80,000/- towards renovation and conditioning variable costs are estimated ar Rs 5 per unit. Give your decision whether to make or buy. At what quantity it is profitable to produce rather than buy. (08)

(b) Explain different techniques used for reducing materials cost. (07)

May 2024

**M. Tech. (MT&A) – II SEMESTER
MATIRIAL MANAGEMENT (MMTA-204-1)**

Time : 3 Hours]

[Max. Marks : 75

Instructions :

1. *It is compulsory to answer all the questions (1.5 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

1. (a) Explain the terms EOQ and EBQ. (1.5)
- (b) What are the characteristics necessary for the success of materials functions? (1.5)
- (c) What do you mean by master scheduling? (1.5)
- (d) Define : Bill of materials. (1.5)
- (e) What factors distinguish a good organization from a poor organization? (1.5)
- (f) What are the causes of uncertainty while purchasing materials for an organization? (1.5)
- (g) What is meant by centralization of purchasing? (1.5)
- (h) Distinguish between Earnest money and Security deposit in relation to purchasing. (1.5)

- (i) Distinguish between cost control and cost reduction. (1.5)
- (j) What is vendor analysis? (1.5)

PART-B

2. (a) Discuss techniques of inventory control used for exercising selective control such as ABC, VED, SDE & MNG etc. (08)
- (b) What are the principles of good organisation set-up? (07)
3. (a) What is classification and codification? Discuss the benefits of classification and codification. (08)
- (b) A consignment of the following 3 types of materials has been purchased for Rs 18,000/-. The market rate of each type of material is shown against each.

Type of Material	Quantity purchased	Market rate
Material A	4000 units	Rs. 1.25
Material B	5000 units	Rs. 1.20
Material C	9000 units	Rs. 1.00

Find the purchase price of each unit for each type of material, if all types of materials give same rate of profit. (07)

4. (a) Explain the following :
- (i) Vendor evaluation
- (ii) Vendor monitoring
- (iii) Vendor rating. (06)

- (b) ABC Corporation is a manufacturing company looking to select a supplier for a critical component used in its production process. They have shortlisted three potential suppliers based on their capabilities and proposals. The evaluation will be conducted using the weighted point method, with the following criteria and weights: Quality (30%), Price 25%, Delivery time 20%, Customer service 15%, Flexibility 10%.

The evaluation scores for each supplier on these criteria are as follows :

	Supplier A	Supplier B	Supplier C
Quality	85 out of 100	95 out of 100	80 out of 100
Price	10 per unit	12 per unit	9 per unit
Delivery Time	90 out of 100	80 out of 100	85 out of 100
Customer Service	80 out of 100	85 out of 100	90 out of 100
Flexibility	70 out of 100	60 out of 100	75 out of 100

Using the weighted point method, calculate the total score for each supplier and determine which supplier should be selected based on the evaluation criteria.

(09)

5. (a) Explain the various stages of manufacturing resource planning with suitable diagram. (08)
- (b) How standardization leads to Variety reduction and bring down cost? (07)
6. (a) What are the different methods of purchasing generally followed by industrial firms? What are the different steps in the procurement cycle? (08)