

MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL

Paper Code: BBA-402

MATERIALS MANAGEMENT

Time Allotted: 3 Hours

Full Marks: 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

GROUP - A

(Multiple Choice Type Questions)

- 1. Choose the correct alternatives for any ten of the following: $10 \times 1 = 10$
 - i) A written order sent by the storekeeper to the purchase department for requesting purchase of materials is called
 - a) purchase requisition
 - b) purchase order
 - c) bill of materials
 - d) none of these.
 - ii) Bin Card is a record of
 - a) quantity of materials
 - b) both quantity and value of materials
 - c) record of return of materials
 - d) none of these.

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iii)	Sto	re Ledger is a record of
	a)	quantity of materials
	b)	both quantity and value of materials
	c)	record of return of materials
	d)	none of these.
iv)	Uno	der ABC Analysis materials are classified as per
	the	
	a)	rate of consumption
	b)	availability
	c)	values of consumption
	d)	none of these.
v)	Car	rying cost curve under EOQ Technique is
	a)	upward rising
	b)	downward sloping
	c)	parallel with horizontal axis
	d)	parallel with vertical axis.
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- vi) $A = \text{Annual Demand of an item, }, Q_0 = EOQ,$ $C_p = \text{Cost per order }, C_u = \text{Cost per unit, } i = \text{Average}$ Inventory Carrying Cost (in % per annum). If C_p , C_u and i are unchanged and Q_0 is doubled; what will be the effect on Annual Demand A?
 - a) Remain unchanged
 - b) Decrease to half
 - c) Increase four times
 - d) Increase to twice.
- vii) Oldest stock is depleted first in
 - a) LIFO Method
 - b) FIFO Method
 - c) Average Stock Method
 - d) Standard Cost Method.
- viii) Items in working order but are in excess of the requirement are
 - a) Obsolete
- b) Scrap
- c) Surplus
- d) Unserviceable.
- ix) Stock out cost is
 - a) Deterministic
- b) Quantifiable
- c) Probabilistic
- d) All of these.
- x) Criteria of VED analysis is
 - a) Unit price of the materials
 - b) Annual value of consumption
 - c) Critical nature of the item
 - d) None of these.

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- xi) The parameters for vendor rating include
 - a) Price

- b) Service
- c) Delivery
- d) All of these.
- xii) Which of the following cost is not taken into consideration for Make or Buy Decision?
 - a) Fixed cost
- b) Variable cost
- c) Semi-variable cost (d) None of these.

GROUP - B

(Short Answer Type Questions)

Answer any three of the following.

 $3 \times 5 = 15$

2. Classify the following items into A, B, C category.

Following ABC analysis of Inventory management:

SI. No.	Items	Annual Usage	Price/Unit (Rs.)
	Graphite	4000 kg	10 / kg
2	Tar	800 kg	5/ kg
3	Wax	600 kg	10/kg
4	Grease	2000 kg	6/kg
5	Drums	1000 kg	18/kg

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3.			
			following

a) Annual usage: 40000 units

b) Purchase price per unit: Rs. 16

c) Cost of placing an order: Rs. 480

- d) Annual carrying cost per unit: 15% of inventory value.
- 4. Differentiate between the meaning of scrap, waste, spoilage and defective.
- 5. Differentiate between fixed order quantity system and periodic order quantity system.
- 6. M/s X and Co. manufactures a special product A. The following particulars were collected for the year 2011:

a) Monthly demand of A:

1000 units

b) Cost of placing an order:

Rs. 100

c) Annual carrying cost per unit:

Rs. 15

d) Normal usage:

50 unit per week

e) Maximum usage:

75 units per week

f) Minimum usage:

25 units per week

g) Re-order period:

4 to 6 weeks.

Compute from the above:

- a) Re-order level
- b) Re-order Quantity
- c) Minimum level
- d) Maximum level
- e) Average stock level.

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GROUP – C (Long Answer Type Questions)

Answer any three of the following.

 $3\times15=45$

7. Prepare a store ledger account under the LIFO and FIFO method of pricing the issue of stores, using the following information and discuss the differences in value of closing stock so arrived under two methods.

2015		Units	
January 1	Balance in hand @ Rs. 1-10 per unit	100	
" 2	Received @ Rs. 1-20 per unit	200	
" 10	Issued	150	
. 14	Received @ Rs. 1.30 per unit	100	
* 18	Issued	150	
" 23	Returned from the issues on 10th January	20	
" 26	Received @ 1.20 per unit	100	
* 30	Wastage	10	
" 31	Issued	110	

- 8. Write short notes on any three of the following:
 - a) Letter of credit
 - b) Different types of selective inventory control (SIC)
 Techniques
 - c) Bill of Lading and Commercial invoice
 - d) Decentralised storing
 - e) Blanket order.

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- a) "JIT is very simple to learn but difficult to implement in developing countries like India."
 Discuss the reasons behind it.
 - b) How much team work is important in case of Continuous Process Improvement method? 8+7
- 10. a) Tata Motors is decide to produce tire for its upcoming Nano model. Till to date they have purchase it from outsource with the costing of Rs. 50 per tire. For that the production manager of Tata Motor is try evaluate the expected cost of this venture and found that Material require for one tier is Rs. 20 whereas the labour cost per tier is Rs. 10. Fixed cost estimated to run this project is Rs. 2,00,000. As a logistic expert, suggest the suitable condition to Tata Motors.
 - b) Explain the application of ABC method in the following shop's inventory system:
 - (i) Anjali jewelers (Jewellery shop)
 - (ii) Traders Assembly (Sharee shop)
 - (iii) Ornamental Fish Store.
- 11. Discuss VED analysis with examples. State the conditions under which materials requirement planning is useful.

 8 + 7

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