

# Answer to MTP\_Intermediate\_Syllabus 2012\_Jun2014\_Set 2

## Paper – 10: Cost & Management Accountancy

Time Allowed: 3 Hours

Full Marks: 100

QUESTION 1, which is compulsory. Attempt all of them.  
Section-A has three questions. Attempt any two of them.  
Section-B has two questions. Attempt any one of them.  
Section-C has three questions. Attempt any two of them.  
(Working Notes should form part of the answer.)

### Question.1

- (a) A factory transferred out 8,800 completed units during Dec 2013. Opening Stock was 400 units 75% completed, closing stock was 800 units 50% completed. Assuming FIFO method, what is the equivalent production in December 2013? [2]

#### Answer.

Equivalent production = 8,800 – (400 x 0.75) units + (800 x 0.50) units = 8800 – 300 + 400 = 8,900 units.

- (b) A company prepares a budget for a production of 2,00,000 units. Variable cost per unit is ₹ 15 and the fixed cost is ₹ 2 per unit. The company fixes its selling price to fetch a profit of 10% on cost.

What is the break-even point? (Both in units and ₹)

[3]

#### Answer.

Break Even Point (unit) = Fixed cost/ Contribution per unit  
= (₹ 2 x 2,00,000 units) / ₹ 3.7  
= 1,08,108 units

Break Even Point (₹) = 1,08,108 × 18.70 = ₹ 20,21,620

Note: Selling price per unit = Total cost + 10% profit on cost  
= ₹ 17.00 + 10% of 17  
= ₹ 18.70

Contribution per unit = Selling price – Variable cost  
= ₹ 18.70 - ₹ 15.00  
= ₹ 3.70

- (c) List the non-cost considerations in a shut-down or continue decision.

[3]

#### Answer:

The non-cost considerations are as follows:

- (i) Loss of market share to competition
- (ii) Loss of goodwill and market image.
- (iii) Strain in labour management relations.
- (iv) Availability of skilled labour on re-opening.
- (v) Risk of obsolescence of machinery.
- (vi) Arrangement of finance for compensation payable on retrenchment, if any.

- (d) Deerbound Manufacturing transferred ₹ 30,00,000 of raw materials into production during the most recent year. Direct labour and factory overhead for the period totaled ₹ 20,00,000. Beginning work in process was ₹ 6,70,000 and ending work in process was ₹ 8,50,000.

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Finished goods inventory decreased by ₹ 50,000. If gross profit was ₹ 16,00,000, how much was sales for the period? [2]

**Answer:**

Total manufacturing costs were ₹ 50,00,000 (₹ 30,00,000 + ₹ 20,00,000). Of this total cost entering production, ₹ 48,20,000 was transferred to finished goods (the other ₹ 1,80,000 remained in work in process (₹ 8,50,000 - ₹ 6,70,000)).

Given that finished goods inventory decreased, the total cost of goods sold was ₹ 48,70,000 (₹ 48,20,000 transferred into finished goods + ₹ 50,000 decrease in finished goods).

=Total sales ₹ 64,70,000 (₹ 48,70,000 cost of goods sold + ₹ 16,00,000 gross profit)

**(e) A company , manufacturing Cotton Textile , wrote off in the same year , the expenditure in replacement of Copper Rollers used for printing fabrics and Stainless Steel frames used for Dying Yarn whose life are more than one year. State whether the Cost Auditor can qualify the report for these? [2]**

**Answer.**

The Cost Auditor is justified in qualifying his report since as per the Cost Accounting Records(Textiles) Rules , cost of items like Copper Rollers used for printing fabrics and the stainless steel frames used for dying yarn put into use in the relevant year shall be treated as deferred revenue expenditure and spread over the effective life of such items . Thus writing off such items in same year is not correct.

**(f) A person is doing Internal Audit on one of the factories manufacturing 'Cement' in a company. He was proposed for appointment as Cost Auditor in another factory of the same company manufacturing cement for the same period. Is this appointment as Cost Auditor 'In Order' ? [2]**

**Answer:**

A Cost Auditor can be appointed separately for each factory. If a person is working as an Internal Auditor of one factory, there is no objection on the same person working as a Cost Auditor of another factory of the same company, even though both factories are manufacturing the same product.

**(g) What are the conditions for price discrimination? [2]**

**Answer.**

The price discrimination is possible if the following conditions are satisfied.

- a. More than one Market:** There must be two or more than two separate markets otherwise the price discrimination is not possible. Different markets must be essential for charging different prices from different persons.
- b. Different elasticity:** The elasticity of demand in each market must be different. It means that if one market is less elastic than the other it should be elastic. If the elasticity of demand is equal in all markets there will be no scope for price discrimination.

**(h) What is Law of Demand? [4]**

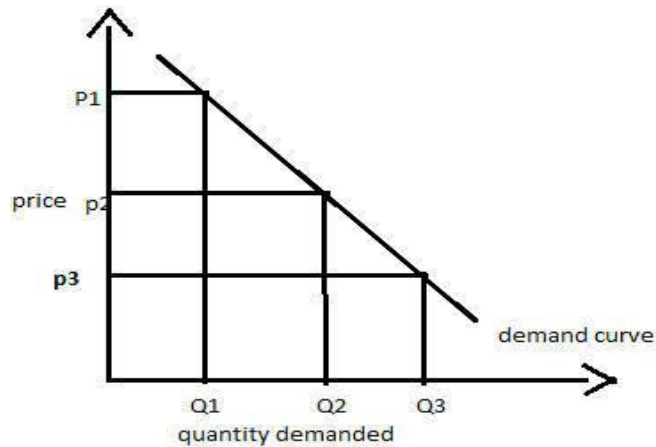
**Answer:**

The law of demand states that other factors being constant, price and quantity demand of any good and service are inversely related to each other. When the price of a product increases, the demand for the same product will fall.

Law of demand explains consumer choice behavior when the price changes. In the market, assuming other factors affecting demand being constant, when the price of a good rises, it leads to a fall in the demand of that good. This is the natural consumer choice behavior. This

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happens because a consumer hesitates to spend more for the good with the fear of going out of cash.



The above diagram shows the demand curve which is downward sloping. Clearly when the price of the commodity increases from price p3 to p2, then its quantity demand comes down from Q3 to Q2 and then to Q3 and vice versa.

### Section A– Answer any two questions from this section

#### Question.2

(a) ABC Ltd., a manufacturing company having a capacity of 60,000 units, has prepared a following Cost Sheet:

Particulars	₹
Direct material (per unit)	12.50
Direct wages (per unit)	5.00
Semi-variable cost	30,000 fixed plus 0.50 per unit
Factory overhead (per unit)	10.00 (50% fixed)
Selling and Administration overhead (per unit)	8.00 (25% variable)
Selling price (per unit)	40.00

During the last year the sales volume achieved by the company was 50,000 units. The Company has launched an expansion program as under –

- (i) Capacity will be increased to 1,00,000 units.
- (ii) Cost of investment on expansion is ₹ 5 lakhs, which is proposed to be financed through Financial Institution at 12% p.a.
- (iii) Depreciation rate of new investment is 10% based on Straight-Line method.
- (iv) Additional fixed overhead will be ₹ 2 lakhs up to 80,000 units, and will increase by ₹ 80,000 more beyond 80,000 units

After the expansion, the company has two alternatives for operating the expanded plan as under –

- (i) Sales can be increased upto 80,000 units by spending ₹ 50,000 on special advertisement campaign to explore new market.
- (ii) Sales can be increased upto 1,00,000 units subject to the following –
  - (a) Reduction of selling price by ₹ 4 per unit on all the units sold.
  - (b) The direct material cost would go down by 4% due to discount on bulk buying
  - (c) Increasing the variable selling and administration expenses by 4%.

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**Required:**

- (i) Construct a Flexible Budget at the level 50,000 units, 80,000 units and 1,00,000 units of production and select the best profitable level of operation.  
 (ii) Calculate Break Even Point both before and after expansion. [8+4]

**Answer:**

### Computation of fixed cost at different levels

Quantity/ Output level	50,000 units	80,000 units	1,00,000 units
Present fixed costs	₹	₹	₹
From Semi-variable cost (given)	30,000	30,000	30,000
From Factory OH (₹ 10 x 50% x 60,000 units)	3,00,000	3,00,000	3,00,000
From Selling OH (₹ 8 x 75% x 60,000 units)	3,60,000	3,60,000	3,60,000
Sub-total	6,90,000	6,90,000	6,90,000
Add: Interest on Investment (₹ 5,00,000 x 12%)	-	60,000	60,000
Additional fixed cost	-	2,00,000	2,80,000
Depreciation on new investment (₹ 5,00,000 x 10%)	-	50,000	50,000
Special advertisement campaign	-	50,000	-
<b>Total fixed cost</b>	<b>6,90,000</b>	<b>10,50,000</b>	<b>10,80,000</b>

### (i) Flexible Budget at different output levels

Quantity/ Output level	50,000 units	80,000 units	1,00,000 units
	₹	₹	₹
Selling price p.u.	40	40	(40 - 4) = 36
Sales value	20,00,000	32,00,000	36,00,000
Variable costs			
Direct materials (at ₹ 12.50 p.u.)	(50,000 x 12.50) = 6,25,000	(80,000 x 12.50) = 10,00,000	(1,00,000 x 12.50 - 4%) = 12,00,000
Direct wages (at ₹ 5 p.u.)	(50,000 x 5.00) = 2,50,000	(80,000 x 5.00) = 4,00,000	(1,00,000 x 5.00) = 5,00,000
Variable Overheads :			
From Semi-variable cost (₹ 0.50 p.u.)	(50,000 x 0.50) = 25,000	(80,000 x 0.50) = 40,000	(1,00,000 x 0.50) = 50,000
From factory overhead (₹ 10 x 50% = ₹ 5)	(50,000 x 5.00) = 2,50,000	(80,000 x 5.00) = 4,00,000	(1,00,000 x 5.00) = 5,00,000
From Selling overhead (₹ 8 x 25% = ₹ 2)	(50,000 x 2.00) = 1,00,000	(80,000 x 2.00) = 1,60,000	(1,00,000 x 2 + 4%) = 2,08,000
<b>Total variable cost</b>	<b>12,50,000</b>	<b>20,00,000</b>	<b>24,58,000</b>
<b>Contribution</b>	<b>7,50,000</b>	<b>12,00,000</b>	<b>11,42,000</b>
<b>Fixed cost</b>	<b>6,90,000</b>	<b>10,50,000</b>	<b>10,80,000</b>
<b>Profit</b>	<b>60,000</b>	<b>1,50,000</b>	<b>62,000</b>

Decision: The Company can earn maximum profits at 80,000 units. So, it is the profitable level of operation.

### (ii) Computation of Break Even Quantity

Particulars	Before expansion	After expansion	
		Proposal I	Proposal II
Output level	50,000 units	80,000 units	1,00,000 units
Fixed cost	₹ 6,90,000	₹ 10,50,000	₹ 10,80,000
Contribution p.u.	(₹ 7,50,000 ÷ 50,000 units) = ₹ 15.00	(₹ 12,00,000 ÷ 80,000 units) = ₹ 15.00	(₹ 11,42,000 ÷ 1,00,000 units) = ₹ 11.42
BEQ	(6,90,000 ÷ 15) = 46,000	(10,50,000 ÷ 15) = 70,000	(10,80,000 ÷ 11.42) = 94,570

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	units	units	units
BES	46,000 units x ₹ 40 = ₹ 18,40,000	70,000 units x ₹ 40 = ₹ 28,00,000	94,570 units x ₹ 36 = ₹ 34,04,520

(b) The following information are provided to you for a month in respect of a workshop:

- (i) Overhead cost variance – ₹ 1,400 adverse
- (ii) Overhead volume variance – 1,000 adverse
- (iii) Budgeted hours - 1,200 hrs.
- (iv) Budgeted overhead – ₹ 6,000
- (v) Actual rate of recovery of overheads - ₹ 8 per hour

You are required to compute:

- (1) Overhead expenditure variance
- (2) Actual overheads incurred
- (3) Actual hours for actual production
- (4) Overheads capacity variance
- (5) Overheads efficiency variance
- (6) Standard hours for actual production
- (7) And also reconcile.

[6+2]

**Answer:**

**Working Notes:**

Standard Rate of recovery of overhead rate = BOH/BH = ₹ 6,000/1,200 hrs. = ₹ 5

(1) Overhead expenditure variance = BOH - AOH = 6,000 - 6,400 = 400 (Adv)

Reconciliation of overheads expenditure variance

Overheads cost variance = Exp. Variance + Volume variance

1,400 (Adv) = 400 (Adv) + 1,000 (Adv)

(2) Actual overheads incurred

SOH = 1000 hrs at ₹ 5 = ₹ 5,000

O/H Cost Var. = SOH - AOH

1400A = 5000 - AOH

-1400 = 5000 - AOH

∴ AOH = 5000 + 1400 = ₹ 6,400

(3) Actual hours for Actual production (AH)

= Actual overheads incurred / Actual rate of recovery of overheads

= ₹ 6,400 / ₹ 8 = 800 hours (AH)

(4) Overhead Capacity variance = SR (BH - AH) = 5(1200 - 800) = 2,000A

(5) Overheads Efficiency variance = SR (SH - AH) = 5(1,000 - 800) = 1,000F

**Reconciliation:**

Volume variance = Capacity variance + Efficiency variance

or, 1000A = 2000 A + 1000 F

(6) Standard Hours for actual production (SH)

Volume variance = SR (SH - BH)

1000A = 5(SH - 1200)

- 1000 = 5 SH - 6000

Or, SH = (6000 - 1000)/5 = 1000 hrs.

**Question.3**

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- (a) An amount of ₹ 19,80,000 was incurred on a contract work upto 31.03.2014. Certificates have been received to date to the value of ₹ 24,00,000 against which ₹ 21,60,000 has been received in cash. The cost of work done but not certified amounted to ₹ 45,000. It is estimated that by spending an additional amount of ₹ 1,20,000 (including provision for contingencies) the work can be completed in all respects in another two months. The agreed contract price of the work is ₹ 25 lakhs. Compute a conservative estimate of the profit to be taken to the profit & Loss Account. Illustrate at least four methods of computing the profit. [8]

Answer:

### Computation of Estimated Total Profit (N.P)

Expenditure incurred upto 31 <sup>st</sup> March, 2014	₹19,80,000
Estimated additional expenditure (including provision for contingencies)	1,20,000
Estimated total cost (A)	21,00,000
Contract price (B)	25,00,000
Estimated total profit (B-A)	4,00,000

### Computation of Notional Profit

Value of Work-Certified	₹ 24,00,000
Work not certified	₹ 45,000
	₹ 24,45,000
Less: Total expenditure up to date	₹ 19,80,000
Notional Profit	₹ 4,65,000

### COMPUTATION OF CONSERVATIVE ESTIMATE OF THE PROFIT TO BE TAKEN TO PROFIT & LOSS ACCOUNT:

(i) Estimated Profit  $\times \frac{\text{Value of work certified}}{\text{Contract price}} \times \frac{\text{Cash received}}{\text{Value of work Certified}}$

$$= 4,00,000 \times \frac{24,00,000}{25,00,000} \times \frac{21,60,000}{24,00,000}$$

$$= ₹ 3,45,600$$

Or,

(ii) Estimated profit  $\times \frac{\text{Cost of work to date}}{\text{Estimated Total Cost}} \times \frac{\text{Cash received}}{\text{Value of work Certified}}$

$$= 4,00,000 \times \frac{19,80,000}{21,00,000} \times \frac{21,60,000}{24,00,000}$$

$$= ₹ 3,39,429 \text{ i.e., } 3,39,430$$

Or,

(iii) Estimated profit  $\times \frac{\text{Cash received}}{\text{Value of work Certified}}$

$$= 4,00,000 \times \frac{21,60,000}{24,00,000}$$

$$= ₹ 3,60,000$$

Or,

(iv) Notional Profit  $\times \frac{\text{Work Certified}}{\text{Contract Price}}$

$$= 4,65,000 \times \frac{24,00,000}{25,00,000}$$

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=₹ 4,46,400

- (b) ABC Ltd. produces three joint products X, Y and Z. The products are processed further. Pre-separation costs are apportioned on the basis of weight of output of each joint product. The following data are provided for month just concluded:  
Cost incurred up to separation point is ₹10,000.

	Product X	Product Y	Product Z
Output (in litre)	100	70	80
	₹	₹	₹
Cost incurred after separation point	2,000	1,200	800
Selling price per Litre:			
After further processing	50	80	60
At pre separation point (estimated)	25	70	45

You are required to:

- (i) Prepare a statement showing profit or loss made by each product using the present method of apportionment of pre-separation cost, and
- (ii) Advise the management whether, on purely financial consideration, the three products are to be processed further. [3+3]

Answer:

### Profit Statement for three Joint products:

	Product X	Product Y	Product Z	Total
	₹	₹	₹	₹
Sales	5,000	5,600	4,800	15,400
<b>Less:</b>				
Pre Separation Costs	4,000	2,800	3,200	10,000
Post Separation Cost	2,000	1,200	800	4,000
Profit/(Loss)	(1,000)	1,600	800	1,400

### Decision whether to further process the product or not:

Product	Incremental Revenue	Incremental Costs	Incremental Profit/(Loss)
	₹	₹	₹
X (₹25x100)	2,500	2,000	500
Y (₹10x70)	700	1,200	(500)
Z (₹15x80)	1,200	800	400
			400

Product X and Z should be further processed. Y should be sold at point of separation.

- (c) What is Inter Firm Comparison? Enumerate some of its advantages. [1+5=6]

Answers:

Inter Firm Comparison, as the name indicates, is a technique by which a Company evaluates its performance with those of other firms in the same industry. Uniform Cost accounting is a must for such meaningful comparison. To facilitate such comparison and evaluation, generally a central organization is formed to collect the necessary data periodically in a standard format from all member industries. To safeguard the confidentiality of the individual firm's performance details, the data are collected as a ratio or percentage by the central organization in the industry. Information collected may relate to costs, capacity utilization, raw material usage, labour productivity, ROI etc.

This Comparison has many advantages which are as follows:

- (i) It promotes a sense of cost consciousness among member units and helps to improve their efficiency.
- (ii) It throws light on weak-areas and enables member units to take remedial action.

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- (iii) It prevents unhealthy price capping.
- (iv) It enables the members to present a united stand before Government and other regulatory bodies.
- (v) An overall improvement in the industry will result in higher profit for member, more benefit to labour, lower prices to consumers and high revenue to the government by way of taxes/duties.

### Question.4

**(a) What are the limitations of ZBB?**

**[4]**

**Answer:**

The limitations are as follows:

- (i) Lack of co-ordination: Various operational problems are likely to be faced in implementing the technique of ZBB. It requires the wholehearted support from Top Management.
- (ii) Old is gold attitude: Generally, managers are reluctant to start afresh. They tend to plan for future just by reference to past actions and budgets.
- (iii) Time consuming: It is time consuming as well as costly. It needs properly trained managerial personnel to do the required job.
- (iv) Lack of adequate data: ZBB requires data for justifying the allocation of resources to various alternatives in every period. Sometimes, this data may not be available for analysis.

**(b) Zenith Transport Company has given a route of 40 kilometers long to run bus. The bus costs the company a sum of ₹ 1,00,000. It has been insured at 3% p.a. and the annual tax will amount to ₹ 2,000. Garage rent is ₹ 200 per month. Annual repairs will be ₹ 2,000 and the bus is likely to last for 5 year. The driver's salary will be ₹ 300 per month and the conductor's salary will be ₹ 200 per month in addition to 10% of takings as commission (to be shared by the driver and the conductor equally.)**

**Cost of stationary will be ₹ 100 per month. Manager-cum-accountant's salary is ₹ 700 per month. Petrol and oil will be ₹ 50 per 100 kilometer. The bus will make 3 up and down trips carrying on an average 40 passengers on each trip.**

**Assuming 15% profit on takings, calculate the bus fare to be charged from each passenger. The bus will run an average 25 days in a month.**

**[7]**

**Answer:**

Statement showing fare to be charged

Particulars	Amount p.a. ( ₹ )	Amount p.m.(₹)
<b>(a) Standing charges:</b>		
• Insurance @ 3% on ₹ 1,00,000	3,000	
• Tax	2,000	
• Garage rent @ ₹ 200 per month	2,400	
• Driver's salary @ ₹ 300 per month	3,600	
• Conductor's Salary @ ₹ 200 per month	2,400	
• Stationary @ ₹ 100 per month	1,200	
• Manager-cum-accountant's Salary @ ₹ 700 month	8,400	
• <b>Total standing charges</b>	<b>23,000</b>	<b>1,916.67</b>
<b>(b) Running Expenses</b>		
• Depreciation ₹1,00,000/5	20,000	1,666.67
• Repairs	2,000	166.66
• Petrol & oil ₹ 0.50×[40km × 2 × 3 × 25]		3,000.00
• Commission		900.00



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• Profit		1,350.00
• <b>Total Taking</b>		<b>9,000</b>
• Fare per passenger kilometer (₹ 9,000 /2,40,000#)	0.0375	0.0375
• Fare passenger (₹ 9,000 / 6,000)		₹1.50

**\* Computation of commission and profit.**

Less: Total taking be x

Commission @ 10%=x/10, profit is 15% of taking.

\* Hence Profit=15x/100=3x/20

\* Total cost without commission=₹6,750 (standing charges+ Running charges)

\* Hence x=₹6,750+ x/10 + 3x/20

Solving the equation for x we get x= ₹9,000, which is total takings.

\* Therefore, commission will be 10% of total taking=₹900

\* Profit @15% of total taking=₹1,350

**# Total passenger kilometers an computed is shown below:**

40 km. ×2(up+ down)×3 trips×25 days×401 passengers

=2,40,000 passenger km/month.

**Calculation of total passenger**

=40 passenger each trip × 2(up + down) × 3 trips × 25 days

=6,000 passengers

**(c) A factory has a key resource (bottleneck) of Facility A which is available for 31,300 minutes per week. Budgeted factory costs and data on two products, A and B, are shown below:**

Product	Selling price/Units	Material cost/Unit	Time in Facility A
<b>A</b>	₹40	₹20.00	<b>5 minutes</b>
<b>B</b>	₹40	₹17.50	<b>10 minutes</b>

**Budgeted factory cost per week:**

	₹
<b>Direct labour</b>	<b>25,000</b>
<b>Indirect labour</b>	<b>12,500</b>
<b>Power</b>	<b>1,750</b>
<b>Depreciation</b>	<b>22,500</b>
<b>Space Costs</b>	<b>8,000</b>
<b>Engineering</b>	<b>3,500</b>
<b>Administration</b>	<b>5,000</b>

Actual production during the last week is 4,750 units of product A and 650 units of product B.

Actual factory cost was ₹78,250.

Calculate:

(i) Total factory costs (TFC)

(ii) Cost per factory minute

(iii) Return per factory minute for both products

(iv) TA ratios for both product

(v) Throughput cost per the week

(vi) Efficiency ratio

[1.5x6=9]

**Answer:**

(i) Total factory cost= Total of all costs except materials.

= ₹25,000+₹12,500+₹1,750+₹22,500+₹8,000+₹3,500+₹5,000

=₹78,250

(ii) Cost per Factory Minute=Total Factory Cost÷ Minutes available

= ₹78,250÷ 31,300

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=₹2.50

(iii)

(a) Return per bottleneck minute for the product A =  $\frac{\text{Selling Price} - \text{Material Cost}}{\text{Minutes in bottleneck}}$   
=  $(40-20)/5$   
=₹4

(b) Return per bottleneck minute for the product B =  $\frac{\text{Selling price} - \text{Material Cost}}{\text{Minutes in bottleneck}}$   
=  $(40-17.5)/10$   
=₹2.25

(iv) Throughput Accounting (TA) Ratio for the product A =  $\frac{\text{Return per Minute}}{\text{Cost per Minute}}$   
=  $(4/2.5)$   
=₹1.6

Throughput Accounting (TA) Ratio for the product B =  $\frac{\text{Return per Minute}}{\text{Cost per Minute}}$   
=  $(2.25/2.5)$   
=₹0.9

Based on the review of the TA ratios relating to two products, it is apparent that if we only made product B, the enterprise would suffer a loss, as its TA ratio is less than 1. Advantage will be achieved, when product A is made.

(v) Standard minutes of throughput for the week:

$$\begin{aligned} &= [4,750 \times 5] + [650 \times 10] \\ &= 23,750 + 6,500 \\ &= 30,250 \text{ minutes} \end{aligned}$$

Throughput Cost per week:  
=  $30,250 \times ₹2.5$  per minutes  
=₹75,625

(vi) Efficiency % =  $(\text{Throughput Cost} / \text{Actual TFC}) \%$   
=  $(₹75,625 / ₹78,250) \times 100$   
= 96.6%

The bottleneck resource of facility A is advisable for 31,300 minutes per week but produced only 30,250 standard minutes. This could be due to:

- (a) The process of a 'wandering' bottleneck causing facility A to be underutilized.  
(b) Inefficiency in facility A.

### Section B – Answer any one question from this section

#### Question.5

(a) As a Cost Auditor, suggest different measures to rectify imbalance in production facilities.

[5]

Answer.

Different measures for rectifying imbalances in production facilities could be listed as below:

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- (i) Outsource/ sub-contract outside the company that part of the job, which is restricting the production.
- (ii) Introduce shift working among the operatives.
- (iii) Replacing entire existing plant by a new automatic plant, in case there is consistent imbalance in the production facilities.
- (iv) Idle equipment should be sold so that entire attention can be focused on the critical equipment.
- (v) Install balancing equipment with higher output potential.

**(b) Para 9 of the Companies (Cost Audit Report) Rules 2011 requires disclosure of “Cost of Production” and “Cost of Sales” at a company level. How the same would be available when all the products/ activities are not covered under cost audit? [3]**

**Answer.**

The Companies (Cost Accounting Records) Rules 2011 [CARR] is now applicable to all companies engaged in production, processing, manufacturing & mining. Hence, product-wise/ activity-wise cost of production and cost of sales would be available from the Cost Accounting Records of all the products/ activities, irrespective of whether these are covered under cost audit or not.

It may further be noted that in such a situation, the company would also be required to file a compliance report and for this purpose, product-wise/ activity-wise cost of production and cost of sales would be determined to prepare the reconciliation statement as required in the compliance report.

**(c) How are Cost Accounting Record Rules different from Cost Accounting Standards? [3]**

**Answer.**

Cost Accounting Record Rules	Cost Accounting Standards
Cost Accounting Record Rules are prescribed by the Central Government w.r.t utilization of material, labour or other items other items of cost in respect of a class of companies notified under the provisions of Companies Act, 1956.	Cost Accounting Standards (CAS) are a set of standards designed to achieve uniformity and consistency in cost accounting practices. These are prescribed by Cost Accounting Standard Board (CASB) set up by The ICWAI.
Separate Rules are prescribed for each class of industry or product. Presently 44 products have been under the respective Cost Accounting Record Rules. So coverage of these rules is limited to selected companies only falling in 44 industries.	CAS on other hand are uniformly applicable to all the units including companies and easier to understand and flexible. The coverage is therefore wider. At present there are 12 Cost Accounting Standards.
Most of the Companies today are multi product organizations where only one or two products are covered by the Record Rules. Products under these Rules will be covered by different set of Rules, making it difficult for the Companies to comply them.	On other hand CAS will be equally applicable to the companies and all product manufacturers. Therefore many experts are of the opinion that prescription of Cost Accounting through CAS with appropriate compliance audit or disclosure norms may be much more effective and useful than through complicated Cost Accounting Record Rules. Moreover this will bring more numbers of companies under the ambit and will help Govt. to achieve its objectives.

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**(d) Distinguish between “Notes” and “Qualifications” in Cost Audit Report. Give suitable examples. [5]**

**Answer.**

Section 227(2) of the Company's Act, 1956, requires the auditor to make report to the shareholders on the accounts examined by him. When in any of the matters as required to be stated, the Auditor feels that satisfactory compliance was not done by the company, the auditor shall state the fact of non-compliances and suitably qualify the point with reason.

The same principle also holds for the Cost Auditor, though the report is to be submitted to the Central Government. Wherever a particular statement or basis of costing needs some explanation or clarification, the auditor shall add suitable “Notes” at appropriate places by way of explanation. For example, if a company has added a new activity, on account of which a portion of overhead charges to a product gets reduced during a year, this may be explained by way of “Notes”.

On other hand if a company has deviated from the accepted Cost Accounting principles, in order to inflate costs, the auditor shall make a qualified report to the Government.

For example, if a company has spent a huge amount on evaluation of new product ideas and has charged the entire amount to the Administrative Overhead, the Cost Auditor should qualify the excess amount and the impact on each unit of Cost of Production of the products under audit. Such report will be a “qualified report”.

**Question.6**

**(a) Under what conditions, will the appointment of Cost Auditor for conducting Cost Audit be appointed in firm's name? Who will authenticate such reports and how? [2+2]**

**Answer.**

Appointment of Cost Auditor under a firm's name will be subjected to the following conditions:

- (i)** All the partners of the firm are full time Cost Accounting Practitioners within the Meaning of Secs 6 & 7 of the Cost and Works Accountants Act, 1959.
- (ii)** The firm must have constituted with the previous approval of Central Government or of the Central Council of ICAI.

The cost audit report shall be signed by any one partner of the firm responsible for the conduct in his own hand for and on behalf of the firm. In any case the report should not be signed by merely offering the firm's name.

**(b) A company is exporting 80% of its sales and 20% is domestic sale. Can this company be exempted from the mandatory cost audit? [3]**

**Answer.**

The exemption from mandatory cost audit is available only to those 100% EOUs who are registered under the policy document as per the Foreign Trade Policy and which are functioning within the permissible approved limit as per the said Policy. The DTA (Domestic Tariff Area) sales should not exceed the permissible limits as per the policy in force.

If the percentage of domestic sales is within the DTA limit, the company will be exempted from mandatory cost audit. It may be noted that if DTA sales for any year exceeds the permissible limits, then the exemption from cost audit available to the unit shall be withdrawn and the unit will be subjected to cost audit in accordance with the provisions of applicable rules/orders starting with the year in which exemption stood withdrawn and for every subsequent year thereafter.

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- (c) Your Firm has been appointed an Auditor of ABC Co. The Company has also appointed a Cost Auditor and therefore, the Management had requested your firm not to review Cost Records. Comment [3]

Answer.

The Management's contention is not correct due to the following reasons

- (i) Sec 233 (B) – The Central Government has the power the order Cost Audit in certain cases. However, it points out that the audit conducted by Cost Auditor shall be in addition to the audit conducted by a Statutory Auditor.
- (ii) Section 227 (3) – The Statutory Auditor shall report whether in his opinion, proper books of account as required by law have been kept by the Company, so far it appears from his examination of those books. Proper books of account include Cost Records. Thus, it is the statutory duty of the Auditor to review Cost Records maintenance.
- (iii) CARO, 2004 – If the Central Government had prescribed maintenance of Cost Records u/s 209(1)(d), the Auditor shall report on whether or not such accounts and records have been prepared and maintained properly.

- (d) What are the time limits for submission of cost audit report? [6]

Answer:

### Time limit for submission of Report

The cost auditor shall forward his report referred to in sub rule (1) of the rule 4 to the Central Government and to the concerned company within one hundred and eighty days from the close of the company's financial year to which the report relates.

Duties of the Company under the Cost Audit Report Rules, 2011

Every company as specified in sub-rule (1) shall, within ninety days of the commencement of every financial year, file an application with the Central Government seeking prior approval for appointment of the cost auditor, through electronic mode, in the prescribed form, along with the prescribed fee as per the Companies (Fees on Applications) Rules, 1999, and requisite enclosures. However, where a company is covered under cost audit for the first time vide cost audit order dated 30<sup>th</sup> June 2011, the period of 90 days shall be counted from the date of this order.

Every company shall follow the procedure prescribed vide Ministry of Corporate Affairs' General Circular No. 15/2011 [File No. 52/5/CAB-2011] dated April 11, 2011.

The company and every officer thereof, including the persons referred to in sub-section (6) of section 209 of the Companies Act, 1956 shall make available to the cost auditor, such cost accounting records, cost statements, other books and documents, and Annexure to the Report, duly completed, as would be required for conducting the cost audit, and shall render necessary assistance to the cost auditor so as to enable him to complete the cost audit and submit his report within the time limit specified in rule 5, i.e., within 180 days from the close of the Company's financial year to which the report relates.

The Annexure prescribed with the cost audit report shall be approved by the Board of Directors before submitting the same to the Central Government by the cost auditor.

## Section C – Answer any two from this section

### Question.7

- (a) Determine breakeven point & profitable range of output if  $p = 20 - 0.02x$  and  $c = 320 + 10x + 0.03x^2$  [1.5+1.5=3]

Answer:

We have  $TR = Px = 20x - 0.02x^2$

For breakeven  $TR = TC$

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$$\begin{aligned}\Rightarrow 20x - 0.02x^2 &= 320 + 10x + 0.03x^2 \\ \Rightarrow 0.05x^2 - 10x + 320 &= 0 \\ \Rightarrow 5x^2 - 1000x + 32000 &= 0 \\ \Rightarrow x^2 - 200x + 6400 &= 0 \\ \Rightarrow (x^2 - 160)(x - 40) &= 0 \\ \therefore x &= 160, 40\end{aligned}$$

$\therefore$  Breakeven points are 160, 40  
Profitable range of output is  $40 < x < 160$ .

### (b) What are the factors influencing Elasticity of Demand?

[9]

Answer.

#### (i) Nature of goods:

Elasticity of demand depends on the nature of goods. The elasticity of demand for a commodity depends upon the necessity of it for a human life. Goods may be necessary for human life, comfort or luxurious. Necessary goods are extremely essential so the demand for these goods is inelastic.

But the consumption of comfort and luxury goods enhances man's efficiency and social prestige. So their consumption is less important and can be very well postponed. Thus the elasticity of demand for such commodities is elastic.

#### (ii) Availability of substitutes:

The demand for a commodity having perfect substitute is relatively more elastic. If a flood gives the same pleasure and satisfaction in place of the consumption of another commodity, it is called a substitute commodity. A substitute may be close and remote.

Close substitute has got more elastic demand and remote substitute has less elastic demand. Tea and coffee are substitute commodities. Both can be used in absence of another. Thus the demand for tea and coffee is elastic.

#### (iii) Alternative use:

The demand for those goods having more than one use is said to be elastic. In other words goods having alternative uses are elastic. All the uses are not of same importance. As the commodities are put to certain less urgent needs or uses as a result of fall in price their demand raises. People use those commodities for certain urgent use in response to a rise in price.

For example electricity can be used for a number of purposes like heating, lighting, cooking, cooling etc. If the electricity bill increases people utilise electricity for certain important urgent purpose and if the bill falls people use electricity for a number of other unimportant uses. Thus the demand for electricity is elastic.

#### (iv) Possibility of postponing consumption:

The demand for those goods whose consumption can be postponed for sometime is said to be elastic. On the other hand if the commodities cannot be postponed and need to be fulfilled the demand for them is inelastic.

Medicine for a patient, books for a student and milk for a child cannot be postponed. They are to be satisfied first. That is why the demand for those commodities is inelastic.

#### (v) Proportion of income spent:

Elasticity of demand also depends on the proportion of income spent on different goods. The demand for those goods on which a negligible amount of the total income of the consumer is spent is said to be inelastic.

Salt, edible oil, match box, soap etc account for a very negligible amount of the consumer income. That is why their demand is inelastic.

#### (vi) Price-level:

The demand for high priced commodities is elastic. On the other hand the low priced goods is said to have inelastic demand. High priced commodities are luxurious goods and low

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priced goods are necessities. Luxurious goods are mainly consumed by the people of high income brackets. For example if the price of a colour TV falls from ₹ 15000 to ₹ 5000 the price comes to the reach of the people who were unable to buy at the old price.

Now they rush to buy colour TV. Thus with a rise or fall in price the amount demanded of colour TV remarkably falls or rise. But if the price of salt raises from ₹ 2.00 to ₹ 5.00 it account for no such remarkable fall in the quantity demanded of salt.

### **(vii) Force of habit:**

A repeated and constant use of a commodity by a person forms habit. A habit can't be avoided. Thus in such a case the consumption of the commodity can't be abstained in spite of the rise in price.

The consumer has to satisfy his habit regardless of change in price. Thus the demand for habitual commodities is fairly inelastic.

### **(viii) Durability of Commodities:**

The demand for durable commodities is elastic whereas the demand for less durable commodity is inelastic. Durable commodity is used over a long period of time. The utility of a durable good is destroyed continuously. Once a durable good is bought the buyer feels no want of it for a long period of time. Thus the change (rise or fall) in price can't influence the demand.

Thus the demand becomes elastic. On the other hand less durable or perishable goods are consumed repeatedly. Any change in price affects the demand. Thus the demand for perishable goods is less elastic.

### **(ix) Income level:**

Elasticity of demand depends on income level. The rich and the poor are not equally affected at the change in price. Poor people are more affected than the rich. Because of high income rich people buy the same amount of an expensive commodity in response to a rise in price.

For example with a rise in price of Horlicks, poor people buy other milk powder relatively cheaper than Horlicks. Thus for rich people the demand for Horlicks is inelastic whereas for poor people the demand for the Horlicks is elastic.

### **Question.8**

**(a) Describe the effects of each of the following managerial decisions or economic influences on the value of the firm:**

**(i) The firm is required to install new equipment to reduce air pollution.**

**(ii) Through heavy expenditures on advertising, the firm's marketing department increases sales substantially.**

**(iii) The production department purchases new equipment that lowers manufacturing costs.**

**(iv) The firm raises prices. Quantity demanded in the short run is unaffected, but in the longer run, unit sales are expected to decline.** **(2+2+2+2 = 8)**

### **Answer.**

**(i)** The most direct effect of a requirement to install new pollution control equipment would be an increase in the operating cost component of the valuation model. Secondary effects might be expected in the discount rate due to an increase in regulatory risk, and in the revenue function if consumers react positively to the installation of the pollution control equipment in production facilities

**(ii)** All three major components of the valuation model--the revenue function, cost function, and the discount rate--are likely to be affected by an increase in advertising. Revenues and cost will both increase as output is expanded. The discount rate may be affected if the firm's profit outlook changes significantly because of increased demand (growth) or if borrowing is necessary to fund a rapid expansion of plant and equipment to meet increased demand.

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(iii) The primary effect of newer and more efficient production equipment is a reduction in the total cost component of the valuation model. Secondary effects on firm revenues could also be important if lower costs make price reductions possible and result in an increase in the quantity demanded of the firm's products. Likewise, the capitalization rate or discount factor can be affected by the firm's changing prospects.

(iv) The time pattern of revenues is affected by such a pricing decision to raise prices in the near term. This will alter production relationships and investment plans, and affect the valuation model through the cost component and capitalization factor.

**(b) Define the cost function from the given information. [4]**

Volume of activity	Output Level (Units)	Total Cost
High	2500	8000
Low	1200	4100

**Answer.**

Let the cost function be  $C = a + bq$ . Where  $q$  is output. We are to determine  $a$  &  $b$ .

$\therefore$  We have  $8000 = a + 2500b$  .....(1)

$4100 = a + 1200b$  .....(2)

From (1) & (2), we get  $a = 500$ ,  $b = 3$ .

$\therefore C = 500 + 3q$ .

**Question.9**

**(a) Why does demand curve slopes downward? [4]**

**Answer.**

Demand curve slopes downward from left to right (Negative Slope).

There are many causes for downward sloping of demand curve:-

- (i) Law of Diminishing Marginal utility - As the consumer buys more and more of the commodity, the marginal utility of the additional units falls. Therefore the consumer is willing to pay only lower prices for additional units. If the price is higher, he will restrict its consumption.
- (ii) Principle of Equi-Marginal Utility - Consumer will arrange his purchases in such a way that the marginal utility is equal in all his purchases. If it is not equal, they will alter their purchases till the marginal utility is equal.
- (iii) Different uses of a commodity - Some commodities have several uses. If the price of the commodity is high, its use will be restricted only for important purpose. For e.g. when the price of tomato is high, it will be used only for cooking purpose. When it is cheaper, it will be used for preparing jam, pickle etc...
- (iv) Psychology of people - Psychologically people buy more of a commodity when its price falls. In other word it can be termed as price effect.

**(b) What are the criteria of a good forecasting method? [8]**

**Answer.**

- (i) **Accuracy** - It is essential to check the accuracy of the past forecasts against present performance and of present forecast against future performance.
- (ii) **Simplicity and Ease of comprehension**-Management must be able to understand the method of demand forecasting used and must have confidence in it. Too much of mathematical and econometric procedures may not find favour with the management.



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- (iii) **Economy-** A good demand forecasting method is one which is highly economical. Thus it is necessary to compare the cost of the forecasting method against its likely benefits. It is desirable so to undertake cost benefit analysis.
- (iv) **Durability-** The technique of demand forecasting must be durable.
- (v) **Effective-** The technique used for demand forecasting should be able to give meaningful result as early as possible. So the technique must be effective and productive.
- (vi) **Flexibility-** The forecasting procedure should permit changes to be made in the relationship between different variables as & when needed. It must be not rigid.
- (vii) **Maintenance of timeliness-** It must be in up to date basis. There must be continuous alterations & addition involving latest information and data.
- (viii) Longer the lead time the forecast has before the event, the greater will be its usefulness.