

Paper 10 - Cost & Management Accountancy

Answer to PTP_Intermediate_Syllabus 2012_Jun2016_Set 1

The following table lists the learning objectives and the verbs that appear in the syllabus learning aims and examination questions:

	Learning objectives	Verbs used	Definition
LEVEL B	KNOWLEDGE What you are expected to know	List	Make a list of
		State	Express, fully or clearly, the details/facts
		Define	Give the exact meaning of
	COMPREHENSION What you are expected to understand	Describe	Communicate the key features of
		Distinguish	Highlight the differences between
		Explain	Make clear or intelligible/ state the meaning or purpose of
		Identify	Recognize, establish or select after consideration
		Illustrate	Use an example to describe or explain something
	APPLICATION How you are expected to apply your knowledge	Apply	Put to practical use
		Calculate	Ascertain or reckon mathematically
		Demonstrate	Prove with certainty or exhibit by practical means
		Prepare	Make or get ready for use
		Reconcile	Make or prove consistent/ compatible
		Solve	Find an answer to
		Tabulate	Arrange in a table
	ANALYSIS How you are expected to analyse the detail of what you have learned	Analyse	Examine in detail the structure of
		Categorise	Place into a defined class or division
		Compare and contrast	Show the similarities and/or differences between
Construct		Build up or compile	
Prioritise		Place in order of priority or sequence for action	
Produce		Create or bring into existence	

Paper – 10: Cost & Management Accountancy

Time Allowed: 3 Hours

Full Marks: 100

This paper contains 4 questions. All questions are compulsory, subject to instruction provided against each question. All workings must form part of your answer. Assumptions, if any, must be clearly indicated.

1. Answer all questions:

[2x10=20]

(a) List the basic features of Batch Costing.

Answer:

Following are the basic features of Batch Costing:

- (a) Each batch is treated as a cost unit.
- (b) All costs are accumulated and ascertained for each batch.
- (c) A separate Batch Cost Sheet is used for each batch and is assigned a certain number by which the batch is identified.
- (d) The cost per unit is ascertained by dividing the total cost of a batch by the number of items produced in that batch.

(b) Distinguish between Absolute ton-kms and Commercial ton-kms.

Answer:

Absolute ton-kms is standard unit of measuring absolute units. Absolute (weighted average) units are calculated by the total of tone-kms (or quintal-kms, tone-mile etc), arrived by multiplying the distance with the respective weight carried. Absolute tone-km = Distance x Respective weight.

Commercial ton-kms is standard unit of measuring Commercial units. Commercial (simple average) units are calculated by multiplying average weight carried with the total distance travelled.

Commercial tone-km = Average weight x Total distance.

(c) The cost per unit of a product manufactured in a factory of SUPERHIT LTD. amounts to ₹240 (70% variable) when production is 10,000 units. If the production increases by 25% what would be the cost of production per unit?

Answer:

Variable Cost per unit = ₹240 x 0.70 = ₹168

Fixed Cost per unit = ₹(240 - 168) = ₹72

Total fixed Cost = 10,000 x ₹72 = ₹7,20,000

Total Cost per unit when production is 12,500 units (10,000 x 1.25)

= ₹168 + ₹7,20,000/12,500

= ₹168 + ₹57.6

= ₹225.6.

(d) C Ltd. Manufactures a single product. The estimated cost data and other information relating to the product are as follows:

Sale price per unit	:	₹60
Total variable production cost per unit	:	₹33

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Sale commission (on sales) : 5%

Fixed costs:

Production overheads : ₹4,32,200

Administrative and selling overheads : ₹1,06,400

Effective income tax rate : 40%

Calculate the number of units to be sold by the company in order to reach its break-even point.

Answer:

$$\text{Break-even point} = \frac{\text{Fixed cost}}{\text{Contribution per unit}} = \frac{4,32,000 + 1,06,400}{60 - (33 + 5\% \text{ of } 60)} = 22,442 \text{ units.}$$

(e) A television Company manufactures several components in batches. The following data relate to one component:

Annual Demand	32,000 units
Setup cost/batch	₹120
Annual rate of interest	12%
Cost of Production per unit	₹16

Calculate the Economic Batch Quantity (EBQ).

Answer:

$$\text{EBQ} = \sqrt{\frac{2AS}{C}} = \sqrt{\frac{2 \times 32,000 \times 120}{16 \times 0.12}} = 2,000 \text{ units.}$$

Where, A= Annual demand, S=Set up cost per batch, C=carrying cost per unit per year.

(f) List the limitations of Zero Based Budget (ZBB).

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.

(g) List the criteria to determine Installed Capacity.

Answer:

Installed capacity is determined based on the following criteria —

- (i) manufacturers' Technical specifications;
- (ii) capacities of individual or interrelated production centres;
- (iii) operational constraints or capacity of critical machines; or
- (iv) number of shifts.

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(h) Discuss “books of account” as per section 2(13) of Companies Act, 2013.

Answer:

As per section 2(13) of Companies Act, 2013, “books of account” includes records maintained in respect of —

- (i) all sums of money received and expended by a company and matters in relation to which the receipts and expenditure take place;
- (ii) all sales and purchases of goods and services by the company;
- (iii) the assets and liabilities of the company; and
- (iv) the items of cost as may be prescribed under section 148 in the case of a company which belongs to any class of companies specified under that section.

(i) State the types of demand schedule.

Answer:

Demand schedules are of two types:

- (a) Individual Demand Schedule;
- (b) Market Demand Schedule.

(j) List the methods of determining Price Elasticity of Demand.

Answer:

The elasticity of demand can be measured by using 3 methods.

1. Percentage method,
2. Total outlay (or) Expenditure method
3. Diagrammatic method:
 - a) Point method
 - b) Arc method

Section A

Answer any two questions from this section

2. (a)(i) A product passes through three process — A,B and C. 10,000 units at a cost ₹1.10 were issued to process A. The other direct expenses were as follows:

Particulars	Process A	Process B	Process C
Sundry Materials	₹1,500	₹1,500	₹1,500
Direct Labour	₹4,500	₹8,000	₹6,500
Direct Expenses	₹1,000	₹1,000	₹1,503

The wastage of process A was 5% and in process B 4%. The wastage of process A sold at ₹0.25 per unit and that of B at ₹0.50 per unit and that of C at ₹1.00 per unit.

The overhead charges were 160% of direct labour. The final product was sold at ₹10 per unit fetching a profit of 20% on sales. Find out the percentage of wastage in process C. [9]

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Answer:

Process A Account

Particulars	Units	Rate	Amount ₹	Particulars	Units	Rate	Amount ₹
To, Units introduced	10,000	1.10	11,000	By, Wastage A/c (5%)	500	0.25	125
To, S. Material			1,500	By, Process B A/c	9,500	2.534	25,075
To, D. Labour			4,500				
To, D. Expenses			1,000				
To, Overhead (160% of D.Labour)			7,200				
	10,000		25,200		10,000		25,200

Process B Account

Particulars	Units	Rate	Amount ₹	Particulars	Units	Rate	Amount ₹
To, Process A	9,500	2.534	25,075	By, Wastage A/c (4%)	380	0.50	190
To, S. Material			1,500	By, Process C A/c	9,120	5.283	48,185
To, D. Labour			8,000				
To, D. Expenses			1,000				
To, Overhead (160% of D.Labour)			12,800				
	9,500		48,375		10,000		48,375

Process C Account

Particulars	Units	Rate	Amount ₹	Particulars	Units	Rate	Amount ₹
To, Process B	9,120	5.283	48,185	By, Wastage A/c (7.63% of 9,120)	696	1.00	696
To, S. Material			1,500	By, Finished Stock A/c	8,424	8.00	67,392
To, D. Labour			6,500				
To, D. Expenses			1,503				
To, Overhead (160% of D.Labour)			10,400				
	9,120		68,088		10,000		68,088

Calculation of Wastage:

Selling Price per unit	₹10.00
Less: Profit (20% of Selling Price)	<u>₹2.00</u>
Cost Price	<u>₹8.00</u>

Suppose wastage = W units

$$8(9,120 - W) = 68,088 - (W \times ₹1.00)$$

$$\text{or } W = ₹696$$

Wastage is 696 units

$$\text{Wastage as \% of input } (696 \div 9,120) \times 100 = 7.63\%$$

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2. (a)(ii) State any four the differences between Job costing and Process costing. [4]

Answer:

	Job Costing	Process Costing
1	That form of specific order costing which applies where the work is undertaken to customer's special requirements.	That form of costing which applies where standardised goods are produced and production is in continuous flow, the products being homogeneous.
2	The job is the cost unit and costs are collected for each job.	Costs are collected by process or department on time basis and divided by output for a period to get an average cost per unit.
3	Losses are generally not segregated.	Normal losses are carefully predetermined and abnormal losses are segregated.
4	Overheads are allocated and apportioned to cost centres then absorbed by jobs, in proportion to the time taken.	Units pass through the same processes. Overheads are apportioned to processes on some suitable basis, some times, pre-determined rates may be used

2. (a) (iii) A company is manufacturing building bricks and fire bricks. Both the products require two processes: Brick-forming and Heat-treating.

Time requirements for the two bricks are:

Particulars	Building Bricks	Fire Bricks
Forming per 100 Bricks	3 Hrs.	2 Hrs.
Heat-treatment per 100 Bricks	2 Hrs.	5 Hrs.
Total cost of the two departments in one month were:		
Forming		₹21,200
Heat-treatment		₹48,800
Production during the month was:		
Building Bricks		1,30,000 Nos.
Fire Bricks		70,000 Nos.

Prepare a statement of manufacturing cost for two varieties of bricks. [7]

Answer:

Statement showing manufacturing cost of Building Bricks

Process	Time for 100 Nos. (Hrs.)	Rate per hour (₹)	Cost per 100 Nos.	Cost for 1,30,000 Nos.
Brick forming	3	4	₹12	₹15,600
Heat Treatment	2	8	₹16	₹20,800
			₹28	₹36,400

Statement showing manufacturing cost of Fire Bricks

Process	Time for 100 Nos. (Hrs.)	Rate per hour (₹)	Cost per 100 Nos.	Cost for 1,30,000 Nos.
Brick forming	2	4	₹8	₹5,600
Heat Treatment	5	8	₹40	₹28,000
			₹48	₹33,600

Working Notes:

1. Brick Forming

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(a) Time required for building bricks	$(₹1,30,000 \times 3) \div 100$	3,900 Hrs.
(b) Time required for fire bricks	$(₹70,000 \times 2) \div 100$	1,400 Hrs.
Total hours spent for brick forming		5,300 Hrs.
Total cost of brick forming		₹21,200
Cost per hour of brick forming		₹4

2. Heat Treatment

(a) Time required for building bricks	$(₹1,30,000 \times 2) \div 100$	2,600 Hrs.
(b) Time required for fire bricks	$(₹70,000 \times 5) \div 100$	3,500 Hrs.
Total cost of heat treatment		₹48,800
Cost per hour of Heat Treatment Department		₹8

2. (b)(i) A company processes a raw material in its Department 1 to produce three products. viz, A B and X at the same split-off stage. During a period 1,80,000kg of raw materials were processed in Department 1 at a total cost of ₹12,88,000 and the resultant output of A, B and X were 18,000 kg, 10,000 kg and 54,000 kg respectively. A and B were further processed in Department 2 at a cost of ₹1,80,000 and ₹1,50,000 respectively. X was further processed in department 3 at a cost of ₹1,08,000. There is no waste in further processing. The details of sales effected during the period were as under:

Particulars	A	B	C
Quantity Sold (kg.)	17,000	5,000	44,000
Sales Value (₹)	12,24,000	2,50,000	7,92,000

There were no opening stocks. If these products were sold at split-off stage, the selling price of A, B and X would have been ₹50, ₹40 and ₹10 per kg respectively.

Required:

- (i) Prepare a statement showing the apportionment of joint costs to A,B and X.
- (ii) Present a statement showing the cost per kg of each product indicating joint cost, further processing cost and total cost separately.
- (iii) Prepare a statement showing the product wise and total profit for the period.
- (iv) State with supporting calculations as to whether any or all the products should be further processed or not. [10]

Answer:

- (i) Statement showing the apportionment of joint costs to A, B and x based on sales value at the point of split-off:

Products	A	B	X	Total ₹
Output (kg)	18,000	10,000	54,000	
Sales value at the point of split-off (₹)	$(50 \times 18,000) = ₹9,00,000$	$(40 \times 10,000) = ₹4,00,000$	$(10 \times 54,000) = ₹5,40,000$	₹18,40,000
Joint cost apportioned on the basis of sales value at the point of split off	$₹6,30,000$ $\left(\frac{12,88,000}{18,40,000} \times 9,00,000\right)$	$₹2,80,000$ $\left(\frac{12,88,000}{18,40,000} \times 4,00,000\right)$	$₹3,78,000$ $\left(\frac{12,88,000}{18,40,000} \times 5,40,000\right)$	₹12,88,000

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(ii) Statement showing the cost per kg. of each product (indicating joint costs, processing cost and total costs separately)

Products	A	B	X
Joint Costs as per (i)	₹6,30,000	₹2,80,000	₹3,78,000
Production	18,000 Kg.	10,000 Kg.	54,000 Kg.
Joint cost per Kg.	₹35	₹28	₹7
Further processing cost per Kg. (ii)	₹10 (1,80,000 ÷ 18,000)	₹15 (1,50,000 ÷ 10,000)	₹2 (1,08,000 ÷ 54,000)
Total cost per Kg. (i) +(ii)	₹45	₹43	₹9

Statement showing product-wise total profit for the period

Products	A	B	X	Total ₹
Sales value (₹)	12,24,000	2,50,000	7,92,000	
Add: Closing Stock	45,000	2,15,000	90,000	
Total	12,69,000	4,65,000	8,82,000	26,16,000
Less:				
(i) Apportioned joint cost	6,30,000	2,80,000	3,78,000	12,88,000
(ii) Further processing cost	1,80,000	1,50,000	1,08,000	4,38,000
Profit	4,59,000	35,000	3,96,000	8,90,000

Calculation for processing decision:

Products	A	B	X
Selling price per kg. At the point of split-off	₹50	₹40	₹10
Selling price per kg. After processing	₹72	₹50	₹18
Incremental selling price	₹22	₹10	₹8
Less: Further processing cost	₹10	₹15	₹2
Incremental profit (loss)	₹12	(-₹5)	₹6

Since product B does not give any further processing profit, it should not be processed.

Working Note:

1.

Products	A	B	X
(i) Sales Value	₹12,24,000	₹2,50,000	₹7,92,000
(ii) Quantity Sold	17,000 kg.	5,000 kg.	44,000 kg.
(iii) Selling price ₹/kg. (i) ÷ (ii)	₹72	₹50	₹18

2. Valuation of closing stocks

Products	A	B	X	Total ₹
Closing Stock	1,000 kg.	5,000 kg.	10,000 kg.	
Cost per kg.	₹45	₹43	₹9	
Closing Stock Value (₹)	45,000	₹2,15,000	₹90,000	₹3,50,000

Closing stock is valued at lower of cost or market value. Here cost is lower of the two and therefore closing stock is to be valued at cost. Working Note. 1 determines selling price per kg. For its comparison with cost per kg.

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2. (b)(ii) A company fixes the inter-divisional transfer price for its products on the basis of cost plus and estimated return on investment in its divisions. The relevant portion of the budget for division A for the year 2014-15 is given below:

Particulars	₹
Fixed Assets	5,00,000
Current Assets (other than debtors)	3,00,000
Debtors	2,00,000
Annual fixed cost of the division	8,00,000
Variable cost per unit of product	10
Budgeted volume of production per year (units)	4,00,000
Desired return on investment	28%

You are required to determine the transfer price for Division A.

[3]

Answer:

Statement showing transfer price for Division A

Particulars	₹	₹
Fixed Assets		5,00,000
Working capital — Current Assets	3,00,000	
— Debtors	2,00,000	5,00,000
Total Investment		10,00,000
Desired rate of return		28%
Total Return (i.e. profit) ₹10,00,000 × 28% =		2,80,000
Budget production p.a. (units)		4,00,000
Return per unit		₹0.70
Variable cost per unit		10.00
Fixed cost per unit		2.00
Transfer price for Division A		12.70

2. (b)(iii) A single product sells its products at ₹60 per unit. In 2014, the company operated at a margin of safety of 40%. The fixed costs amounted to ₹3,60,000 and the variable cost ratio to sales was 80%.

In 2015, it is estimated that the variable costs will go up by 10% and the fixed costs will increase by 5%.

Find the selling price required to be fixed in 2015 to earn the same P/V ratio as in 2014.

Assume the same selling price of ₹60 per unit in 2015, find the number of units required to be produced and sold to earn the same profit as in 2014. [7]

Answer:

A. Selling price to be fixed in 2015:

Variable cost to sales ratio in 2014 is 80%. Hence, contribution to sales ratio i.e. P/V ratio in 2014 is 100% - 80%

$$= 20\%$$

Variable cost per unit in 2015

$$= (80\% \text{ of } ₹60) \times 110\% = ₹52.80$$

Let, required selling price to achieve the same P/V ratio of 20%

$$= ₹s$$

$$\therefore \text{P/V ratio in 2015} = \frac{\text{Contribution p.u.}}{\text{Selling price p.u.}}$$

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$$\text{Or, } 20\% = \frac{s - 52.80}{s}$$

$$\text{Or, } s = ₹66$$

B. Number of units to be sold to earn the same profit as in 2014 if the selling price is ₹60

Margin of Safety = 40%. Hence, break-even point is 60% of units sold.

$$\text{Now, Break-even point} = \frac{\text{Fixed Cost}}{\text{Contribution p.u.}} = \frac{₹3,60,000}{20\% \text{ of } ₹60 \text{ p.u.}} = 30,000 \text{ units}$$

∴ units actually sold in 2014 = 30,000 ÷ 60% = 50,000 units.

∴ Profit in 2014 = Contribution – Fixed cost = (₹12 p.u. × 50,000 units) – ₹3,60,000 = ₹2,40,000

Let, number of units sold in 2015 = 'a'

∴ Sales required in 2015 = Total cost + Profit

$$\text{Or, } ₹60 \times a = (₹3,60,000 \times 105\%) + (₹52.80 \times a) + ₹2,40,000$$

$$\text{Or, } 60a - 52.80a = 6,18,000$$

$$\text{Or, } a = 85,833 \text{ units}$$

∴ We are required to produce and sell 85,833 units at selling price of ₹60 per unit to earn the same amount of profit as earned in 2014.

2. (c) (i) Write a note on - " Master Budget".

[6]

Answer:

Master Budget:

Master budget is the budget prepared to cover all the functions of the business organisation. It can be taken as the integrated budget of business concern, that means, it shows the profit or loss and financial position of the business concern such as Budgeted Profit and Loss Account, Budgeted Balance Sheet etc. Master budget, also known as summary budget or finalized profit plan, combines all the budgets for a period into one harmonious unit and thus, it shows the overall budget plan. The master budget incorporates all the subsidiary functional budgets and the budgeted Profit and Loss Account and Balance Sheet. Before the budget plan is put into operation, the master budget is considered by the top management and revised if the position of profit disclosed therein is not found to be satisfactory. After suitable revision is made, the master budget is finally approved and put into action. Another view regards the budgeted Profit and Loss Account and the Balance Sheet as the master budget.

2. (c) (ii) EXPART LTD. operates a system of standard costing throughout its division. The company produces an alloy by mixing and processing three materials P, Q and R as per standard data given below:

Materials	Ratio of Input	Cost per kg.(₹)
P	2	40
Q	2	60
R	1	85

Note: Loss during processing is 5% of input and this has no realizable value. During the month of June, 2015, 5,80,000 kg of finished alloy was obtained from inputs as per details given below:

Materials	Quantity Consumed (Kg.)	Cost per kg. (₹)
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P	2,40,000	38
Q	2,50,000	59
R	1,10,000	88

You are required to calculate the following variances: (i) Material Cost Variance; (ii) Material Price Variance; (iii) Material Mix Variance; (iv) Material Yield Variance; (v) Material Usage Variance. [11]

Answer:

Material	Ratio	Quantity (kg)	Cost/kg (₹)	Total (₹)
P	2	2	40	80
Q	2	2	60	120
R	1	1	85	85
Total Input		5		285
(Less) 5% Loss in process		(0.25)		
Net output		4.75 Kg		(₹) 285

Standard cost per kg of output = $285 / 4.75 = ₹60$.

	Particulars
(i)	Total Material Cost Variance: [Standard Cost of Actual Output - Actual Mat. Cost of Production] = $5,80,000 \times ₹60 - [P: 2,40,000 \times ₹38 + Q: 2,50,000 \times ₹59 + R: 1,10,000 \times ₹88]$ = $₹34,80,000 - ₹33,55,000 = ₹12,50,000$ (FAV)
(ii)	Material Price Variance : [(Std Price - Actual Price) x Actual Quantity Consumed] = P: $₹(40 - 38) \times 2,40,000 + Q: ₹(60 - 59) \times 2,50,000 + R: ₹(85 - 88) \times 1,10,000$ = P: $₹4,80,000$ (FAV) + Q: $₹2,50,000$ (FAV) + R: $₹3,30,000$ (ADV) = $₹4,00,000$ (FAV)
(iii)	Material Mix Variance: [(Input in std. proportion - Actual input) x std cost (price) of input] = [P: $(2,40,000 - 2,40,000) \times ₹40 + Q: (2,40,000 - 2,50,000) \times ₹60 + R: (1,20,000 - 1,10,000) \times ₹85]$ = P: $₹0 + Q: ₹6,00,000$ (ADV) + R: $₹8,50,000$ (FAV) = $₹2,50,000$ (FAV)
(iv)	Material Yield Variance: $₹6,00,000$ (FAV) Output basis: Std input for actual yield i.e. $5,80,000 \text{ kg} \div 0.95$ i.e. $6,10,526.3158 \text{ kg}$ (Less) actual input $(6,00,000.0000 \text{ kg})$ Saving in input: 10526.3158 kg Cost saved @ $₹285 / 5 = ₹57$ = 10526.3158×57 = $₹6,00,000$ (FAV) [Alternatively] Input basis : Std yield for actual input $6,00,000 \times 0.95$ = $5,70,000 \text{ kg}$ Actual yield $5,80,000 \text{ kg}$ Excess yield obtained Material cost whereof @ $₹60$ Yield Variance : $10,000 \times 60$ = $₹6,00,000$ (FAV)
(v)	Material Usage Variance : [Std cost of actual output - Std cost of actual quantity consumed] = $5,80,000 \times ₹60 - [P: 2,40,000 \times ₹40 + Q: 2,50,000 \times ₹60 + R: 1,10,000 \times ₹85]$ = $₹34,80,000 - ₹33,95,000$ = $₹8,50,000$ (FAV)

(iii) State the general principles of Standard Costing.

[3]

Answer:

General principles of Standard Costing are:

- i) Predetermination of technical data related to production i.e., details of material and labour operations required for each product, the quantum of inevitable losses, efficiencies expected, level of activity etc.
- ii) Predetermination of standard cost in full details under each element of cost, viz., labour, material and overhead.
- iii) Comparison of actual performance and costs with the standards and working out of the variances. i.e., the differences between the actual and the standards.
- iv) Analysis of variances in order to determine the reasons for deviations of actual from the standards.
- v) Presentation of information to the appropriate level of management to enable suitable action (remedial measure or revision of the standards) being taken.

Section B

Answer any two questions from this section

3.(a)(i) Write short note on –True and Fair Cost of Production. [4]

Answer:

The Cost Auditor is required to express his opinion on true and fair cost. The cost is said to be true and fair if:

- Accepted Cost Accounting Principles have been applied while arriving at the cost.
- Costing principles are applied on a consistent basis.
- Costing system appropriate to product is used.
- All material items are considered while arriving at the cost.
- Cost sheet is prepared in prescribed form.
- There is elimination of prior period adjustments in cost sheet.
- Abnormal losses are ignored in determination of cost.

3. (a)(ii) Many Companies have filed Form 23C as well as Form CRA-2 for 2014-15 in respect of different products and/or multiple cost auditors, if applicable. State the SRN Number has to be reported in the cost audit report while filing the same in XBRL Mode? [4]

Answer:

(a) Companies who have filed multiple Form 23C in respect of multiple cost auditors will be required to provide the SRN Numbers against each Form 23C filed.

(b) In case the company after filing individual Form 23C has also filed Form CRA-2, in such case the company will be required to provide the SRN Number of the latest CRA-2 only since the details of multiple cost auditors, if applicable for the company, would be covered under one Form CRA-2.

3.(b)(i) Cost records under Rule 2(e) of Companies (Cost Records and Audit) Rules,2014 — discuss. [5]

Answer:

As per Rule 2(e) the Companies(Cost Records and Audit) Rules, 2014, "cost records" means 'books of account relating to utilization of materials, labour and other items of cost as

applicable to the production of goods or provision of services as provided in section 148 of the Act and these Rules'.

There cannot be any exhaustive list of cost accounting records. Any transaction - statistical, quantitative or other details - that has a bearing on the cost of the product/activity is important and form part of the cost accounting records. Cost records are to be kept on regular basis to make it possible to "calculate per unit cost of production/operations, cost of sales and margin for each of its products for every financial year on monthly/quarterly/half-yearly/annual basis". What is required is to maintain such records and details in a structured manner on a regular basis so that accumulation is possible on a periodical basis.

3. (b)(ii) "Only a Cost Accountant can be appointed as a cost auditor" — discuss . [3]

Answer:

Only a Cost Accountant, as defined under section 2(28) of the Companies Act, 2013, can be appointed as a cost auditor. Clause (b) of sub-section (1) of section 2 of the Cost and Works Accountants Act, 1959 defines "Cost Accountant". It means a Cost Accountant who holds a valid certificate of practice under sub-section (1) of section 6 of the Cost and Works Accountants Act, 1959 and is in whole-time practice. Cost Accountant includes a Firm of Cost Accountants and a LLP of Cost Accountants.

3. (c) "It is not possible to merge Cost Audit with Financial Audit to have a Composite Audit." Discuss. [8]

Answer:

Even though there are considerable areas of overlapping between cost and financial records, a composite audit requirement between the two is not feasible on the following grounds:

- Different information systems – It is difficult to collect the accounting information required for cost and financial audit purposes, in a single format.
- Objective of audit – The main objective of financial audit is to express an opinion on the truth and fairness of the information contained in the financial statements. But the main objective of cost audit is to verify the cost statements and see whether a true and fair cost of production and of marketing has been worked out.
- Focus of audit – Cost Audit focuses on review of information in respect of each cost element in detail. Hence, the focus of audit and review of information is much different from that of financial audit.
- Classification of accounting data – Financial Accounts present data under the natural accounting heads. However, Cost Records present information based on product lines and cost-centres.
- Confidentiality – The Financial Audit Report is too general and is made public as per the requirements of the Act. The Cost Auditor Report may contain certain information which the Company considers confidential.
- Applicability – The maintenance of Cost Accounting Records by all types of industries may also not be practicable. At present, small-scale industrial undertakings are exempted from maintaining Cost Accounting Records, even if they belong to industry which is required to maintain Cost Records.

- Toll of management – Cost Audit can be considered as tool of internal management by a Company to operate effectively in a competitive environment by disclosing weaknesses in a cost accounting system and disclosing inefficiencies at all levels of organization. On the other hand, Financial Audit can give a picture of the overall results only.
- Extensive nature – The Cost Auditor does not have to state only whether the Cost Statements reflect a true and fair view, but has to go much beyond and express his opinion also on propriety and efficiency aspects.

Section C

Answer any three questions from this section.

- 4. (a) (i) Mention any four factors involved in Demand Forecasting. [4]**

Answer:

Following are the factors involved in Demand Forecasting:

1. Time factor: Forecasting may be done for short-term or long-term. Short-term forecasting is generally taken for one year while long-term forecasting covering a period of more than one year.
2. Level factor: Demand forecasting may be undertaken at three different levels.
 - a. Macro level: It is concerned with business conditions over the whole economy.
 - b. Industry level: Prepared by different industries.
 - c. Firm-level: Firm-level forecasting is the most important from managerial view point.
3. General or specific purpose factor: The firm may find either general or specific forecasting or both useful according to its requirement.
4. Product: Forecasting varies type of product i.e., new product or existing product or well established product.

- 4. (a) (ii) The cost function 'c' of a firm = $\frac{1}{3}x^3 - x^2 + 5x + 3$, find the level at which the marginal cost and the average variable cost attain their respective minimum. [4]**

Answer:

$$C = \frac{1}{3}x^3 - x^2 + 5x + 3$$

$$\text{Marginal Cost} = \frac{dc}{dx} = \frac{1}{3}3x^2 - 2x + 5$$

$$= x^2 - 2x + 5 \text{ ('y'say)}$$

$$\frac{dy}{dx} = 2x - 2 = 0$$

$$\therefore x = 1$$

$$\frac{d^2y}{dx^2} = 2, \text{ which is positive}$$

∴ Marginal cost is minimum value at $x = 1$

$$\text{Average variable cost} = \frac{1}{3}x^2 - x + 5 \text{ ('y' say)}$$

$$\frac{dy}{dx} (\text{Average Variable Cost}) = \frac{2}{3}x - 1 = 0$$

$$\Rightarrow \frac{2}{3}x = 1$$

$$\therefore x = \frac{3}{2}$$

$$\frac{d^2y}{dx^2} = \frac{2}{3}, \text{ positive}$$

Average Variable Cost is minimum at output $x = \frac{3}{2}$

4. (b) (i) State the conditions for price discrimination under monopoly? [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.

4. (b)(ii) State what is Income Elasticity of Demand? Discuss the types of Income Elasticity of Demand? [6]

Answer:

The income elasticity of demand explains the proportionate change in income and proportionate change in demand. The rate of change in the demand due to the change in the income is called income elasticity of demand.

Types of income elasticity of demand:

- (i) Zero income elasticity of demand: If the change in the income fails to bring any change in demand, it is called zero income elasticity of demand. ($E_y=0$).
- (ii) Negative income elasticity of demand: If the demand decreases with the increase in the income is called negative income elasticity of demand.
- (iii) Unitary income elasticity of demand: If the proportionate change in the demand is equal to proportionate change in the income, it is called unitary income elasticity of demand ($E_y=1$).
- (iv) Income elasticity of demand is greater than one: If the proportionate change in the demand is more than the proportionate change in income, it is called relatively income elastic of demand ($E_y>1$).
- (v) Income elasticity of demand is less than one: If the proportionate change in the demand is less than the proportionate change in the income, it is called relatively income inelastic demand ($E_y<1$).

4. (c) (i) The demand function is $X = 80 + 2P + 5P^2$ where 'X' is the demand for the commodity at Price 'P'. Find the elasticity of demand at $P = 5$. [3]

Answer:

Determination of Elasticity of Demand

$$X = 80 + 2P + 5P^2$$

$$\text{Marginal quantity demanded } \frac{dx}{dp} = 2 + 10P$$

$$\text{Average quantity demanded} = \frac{X}{p} = \frac{80 + 2p + 5p^2}{p} = \frac{80}{p} + 5p + 2$$

$$E_p = \frac{dx}{dp} \cdot \frac{x}{p} = \frac{2 + 10p}{\frac{80}{p} + 5p + 2} = \frac{p(2 + 10p)}{80 + 5p^2 + 2p}$$

At, P = 5

$$E_p = \frac{5(2 + 50)}{80 + 125 + 10} = \frac{260}{215} = \frac{52}{43}$$

4. (c) (ii) Write short note on –Regression Analysis. [5]

Answer:

Regression Analysis: Regression equation establishes the relationship between dependent variable and independent variable, assuming the relationship to be linear. For some commodities independent variable may be only one. But for some products independent variables may more than two. In such a case, multiple regression analysis can be used. Hence, demand for any product can be estimated at a given value of price.

Simple Regression Equation:

This equation will be form of $Y = a + bx$,
For, Independent variable : x
Dependent variable : y

Multiple-Regression Model:

The equation in the case of multiple regression
 $Y = a + b_1 X_1 + b_2 X_2 + \dots + b_n X_n$
Independent variables: X_1, X_2, \dots, X_n
Dependent variable : y

Limitations:

- (i) It is difficult to find out inter-dependent relationship between the variables.
- (ii) Sometimes it may be difficult to identify dependent and independent variable.
- (iii) Indicators are based on historical data. But the relationship cannot be established for the future.

4. (d) (i) Discuss the concept of Penetration pricing policy of a new product. [5]

Answer:

Penetration Price Policy: Instead of setting a high price, the firm may set a low price for a new product by adding a low mark-up to the full cost. This is done to penetrate the market as quickly as possible. The assumptions behind the low penetration price policy are:

- The new product is being introduced in a market which is already served by well-known brands. A low price is necessary to attract gradually consumers who are already accustomed to other brands.
- The low price will help to maximize the sales of the product even in the short period.
- The low price is set in the market to prevent the entry of new products.

Penetration price policy is preferred to skimming price under three conditions: In the first place, skimming price offering a high margin will attract many rivals to enter the market. With the entry of powerful rivals into the market, competition will be intensified, price will fall and profits will be competed away in the long run. A firm will prefer a low penetration price if it fears the entry of powerful rivals with plenty of capital and new technology. For a low penetration price, based on extremely low mark-up will be least profitable and potential competitors will not be induced to enter the market. Secondly, a firm will prefer low penetration price strategy if product differentiation is low and if rival firms can easily imitate the product. In such a case, the objective of the firm to fix low price is to establish a strong market based and build goodwill among consumers and strong consumer loyalty. Finally, a firm may anticipate that its main product may generate continuing demand for the complementary items. In such a case, the firm will follow penetration pricing for its new product, so that the product as well as its complements will get a wider market.

4. (d) (ii) List any three exceptions of Law of Demand. [3]

Answer:

The following are the exceptions to the Law of Demand —

- (i) Giffen Paradox: According to Giffen, even though the price, for necessary goods rise, the demand for them will not decrease. These goods are called "Giffen Goods".
- (ii) Prestigious goods : The law of demand will not operate in case of prestigious goods like diamonds, cars etc., The demand for these does not decrease with the rise in the price, as these goods are attached with prestige.
- (iii) Speculative Business: The law of demand does not operate in case of the speculative business. If people think that the prices of goods increase in the future, now they will buy more units of that commodity. This is against the law of demand.