



Time Allowed: 3 Hours

Full Marks: 100

The figures in the margin on the right side indicate full marks.

SECTION – A

1. Multiple Choice Questions:

[15 x 2 = 30]

- (i) _____ deals with the principles and methods of determining the production or operation overheads.
- CAS-3
 - CAS-5
 - CAS-9
 - CAS-16
- (ii) Time and motion study is conducted by the _____.
- Time –keeping department
 - Personnel department
 - Payroll department
 - Engineering department
- (iii) Royalty paid on sales ₹89,000 and Software development charges related to product is ₹22,000. Calculate Direct Expenses.
- ₹1,11,100
 - ₹1,11,000
 - ₹1,11,110
 - ₹1,10,000
- (iv) Marginal Costing technique follows which of the following basis of classification?
- Element wise
 - Function wise
 - Behaviour
 - Identifiability wise
- (v) If an organization has all the resources it needs for production, then the principal budget factor is most likely to be _____.
- non-existing
 - sales demand
 - raw materials
 - labour supply
- (vi) In process, conversion cost means _____.
- Cost of direct materials, direct labour, direct expenses
 - Direct labour, direct expenses, indirect material, indirect labour, indirect expenses
 - Prime cost plus factory overheads
 - All costs up to the product reaching the consumer, less direct material costs



- (vii) If sales are ₹150,000 and variable cost are ₹50,000. Compute P/V ratio.
- 66.66%
 - 100%
 - 133.33%
 - 65.66%
- (viii) Selling and distribution overheads are absorbed on the basis of _____.
- rate per unit.
 - percentage on works cost.
 - percentage on selling price of each unit.
 - Any of the above
- (ix) In a process 800 units are introduced during 2022-23. 5% of input is normal loss. Closing work-in-progress 60% complete is 100 units. 660 completed units are transferred to next process. Equivalent production for the period is _____.
- 760 units
 - 744 units
 - 540 units
 - 720 units
- (x) A hotel having 100 rooms of which 80% are normally occupied in summer and 25% in winter. Period of summer and winter be taken as 6 months each and normal days in a month be assumed to be 30. The total occupied room days will be _____.
- 1525 Room days
 - 18900 Room days
 - 36000 Room days
 - None of the above
- (xi) Integral accounts eliminate the necessity of operating _____.
- Cost Ledger Control Account
 - Store Ledger Control Account
 - Overhead Adjustment Account
 - None of the above
- (xii) Batch Costing is suitable for _____.
- Sugar Industry
 - Chemical Industry
 - Pharma Industry
 - Oil Industry
- (xiii) In which of the following incentive plan of payment, wages on time basis are not Guaranteed?
- Halsey plan
 - Rowan plan
 - Taylor's differential piece rate system
 - Gantt's task and bonus system



COST ACCOUNTING

- (xiv) During a period 13600 labour hours were worked at a standard rate of ₹8 per hour. The direct labour efficiency variance was ₹8,800 (Adv.). How many standard hours were produced?
- 12000 hours
 - 12500 hours
 - 13000 hours
 - 13500 hours
- (xv) Difference between standard cost and actual cost is called as _____.
- Wastage
 - Loss
 - Variance
 - Profit

Answer:

(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)	(xii)	(xiii)	(xiv)	(xv)
a	d	b	c	b	b	a	d	d	b	a	c	c	b	c

SECTION-B

(Answer any five questions out of seven questions given. Each question carries 14 Marks)

2. (a) From the following information, illustrate and prepare a statement showing profit for the period and determine Cost per Unit.

1.

	Opening	Closing
Raw Materials:	₹29,500	₹36,000
Work-in-progress:		
Material	13,600	12,000
Wages	11,000	16,500
Works overhead	6,600	9,900
Finished Goods:	200 units@ ₹84	1600 Units

- Purchases of raw material ₹1,90,000, Carriage on purchases ₹1,500, Sale of scrap of raw materials ₹5,000
- Wages ₹2,97,000
- Works overheads are absorbed @ 60% of direct labour cost.
- Administration overhead are absorbed @ ₹12 per unit produced.
- Selling and distribution overhead are absorbed @ 20% of selling price.
- Sales – 7600 units at a profit of 10% on sales price. [7]

- (b) PQR Tubes Ltd. are the manufacturer of picture tubes of T.V. The following are the details of their operations during 2022-2023.

Ordering cost	₹100 per order	Inventory carrying cost	20% p.a.
Cost of tubes	₹500 per tube	Normal usage	100 tubes per week
Minimum usage	50 tubes per week	Maximum usage	200 tubes per week
Lead time to supply	6-8 weeks		

**INTERMEDIATE EXAMINATION****SET - 1****MODEL ANSWERS****TERM – DECEMBER 2023****PAPER – 8****SYLLABUS 2022****COST ACCOUNTING****Compute:**

- (i) Economic order quantity. If the supplier is willing to supply quarterly 1,500 units at a discount of 5%, is it worth accepting?
- (ii) Re-order level;
- (iii) Maximum level of stock;
- (iv) Minimum level of stock. [7]

Answer:**(a)****Cost Sheet**

	Particulars		Total (₹)	Per Unit (₹)
A	Raw-materials consumed:			
	Opening stock	29,500		
	Add: Purchases	1,90,000		
	Add: Carriage on purchases	1,500		
	Less: Scrap of raw materials	5,000		
	Less: Closing Stock	36,000	1,80,000	
B.	Add: Wages		2,97,000	
C.	Prime cost [A+B]		4,77,000	53.00
D.	Add: Works overhead [60% of ₹ 2,97,000]		1,78,200	
	Add: Opening WIP		31,200	
	Less : Closing WIP		38,400	
E.	Works cost		6,48,000	72.00
F.	Add: Administration overhead [9,000 × ₹ 12]		1,08,000	12.00
G.	Cost of goods produced [E+F]		7,56,000	84.00
H.	Add: Opening stock of finished goods [200 units × 84]		16,800	
	Less: Closing stock of finished goods [1600 units × 84]		1,34,400	
I.	Cost of goods sold [G+H]		6,38,400	84.00
J.	Add: Selling & dist. Overhead @ 20% on sales		1,82,400	24.00
K.	Cost of Sales [I+J]		8,20,800	108.00
L.	Add: Profit @ 10% on sales		91,200	12.00
M.	Sales		9,12,000	120.00

Working Notes:

- (i) Units produced = Closing Stock + Sales – Opening Stock
= 1600+7600-200
= 9000
- (ii) Let Sales be X, then, $X = 6,38,400 + 20\% \text{ of } X + 10\% \text{ of } X$
 $0.7X = 6,38,400$
 $X = 6,38,400/0.7$
 $= ₹ 9,12,000$

(b) (i) Economic Order Quantity

$$A = \text{Annual requirement of tubes} = 100 \times 52 = 5,200$$

$$O = \text{Ordering cost per order} = ₹ 100 \text{ per order}$$

$$C = \text{Inventory carrying cost per unit p.a.} = 20\% \text{ of } ₹ 500 = ₹ 100$$

$$E.O.Q = \sqrt{\frac{2AO}{C}} = \sqrt{\frac{2 \times 5,200 \times 100}{100}} = 102 \text{ tube (approx.)}$$

Total cost at EOQ = Total purchase cost of 5,200 + Total ordering cost + Total carrying cost

$$= (5,200 \text{ units} \times ₹ 500) + \left(\frac{5,200 \text{ units}}{102 \text{ units}} \right) \times ₹ 100 + \left(\frac{1}{2} \times 102 \text{ units} \times ₹ 100 \right)$$

$$= ₹ 26,00,000 + ₹ 5,098 + ₹ 5,100 = ₹ 26,10,198$$



COST ACCOUNTING

Total cost (When the supplier is willing to give a discount of 5% on an order size of 1,500 units) will be:

Total cost at order size of 1,500

$$= (5,200 \text{ units} \times ₹ 475) + \left(\frac{5,200 \text{ unit}}{1,500 \text{ units}} \times ₹ 100 \right) + \left(\frac{1}{2} \times 1,500 \text{ units} \times 20\% \times ₹ 475 \right)$$

$$= ₹ 24,70,000 + ₹ 346.66 + ₹ 71,250$$

$$= ₹ 25,41,596.66 \text{ approx.}$$

Decision: Since the total cost of inventory when supplier supplies quarterly 1,500 units at a discount of % is less than that when the order size is of 102 units. Therefore, it is advisable to accept the offer of 5% discount and save a sum of ₹ 68,601.34 (₹26,10,198 - ₹25,41,596.66)

Note: In the case of E.O.Q. the total ordering cost and the total carrying cost are always equal, but in the above case it is not so because of the approximation made in arriving at the figure of E.O.Q.

(ii) **Re-order Level (RPL)** = Maximum usage × Maximum lead time to supply

$$= 200 \text{ tubes per week} \times 8 \text{ weeks}$$

$$= 1,600 \text{ tubes.}$$

(iii) **Maximum level of stock**

$$= \text{Re-order level} + \text{Re-order quantity} - (\text{Minimum usage} \times \text{Minimum lead time to supply})$$

$$= 1,600 \text{ tubes} + 102 \text{ tubes} - (50 \text{ tubes} \times 6 \text{ weeks})$$

$$= 1,402 \text{ tubes}$$

(iv) **Minimum level of stock**

$$= \text{Re-order level} - \text{Normal usage} \times \text{Average lead time to supply}$$

$$= 1,600 \text{ tube} - (100 \text{ tubes} \times 7 \text{ weeks})$$

$$= 900 \text{ tubes}$$

3. (a) A Company has three production cost centers A, B and C are two service cost centres X and Y. Cost allocated to service centres are required to be apportioned to the production centres to find out cost of production of different products.

It is found that benefit of service cost centres is also received by each other along with production cost centres.

Overhead cost as allocated to the five cost centres and estimates of benefit of service cost centres received by each of them are as under:

Cost Centres	Overhead costs as allocated	Estimates of benefits received from service centres (%)	
		X	Y
A	80,000	20	20
B	40,000	30	25
C	20,000	40	50
X	20,000	--	5
Y	10,000	10	-

**Required:**

Compute the final overhead costs of each of the production department including reappropriated cost of service centres using –

(A) Continuous distribution method and

(B) Simultaneous equation method

[7]

- (b) M/s Mysore Petro Ltd. showed a net loss of ₹ 2,08,000 as per their financial accounts for the year ended 31st March, 2023. The Cost Accounts, however, disclosed a net loss of ₹ 1,64,000 for the same period. The following information was revealed as a result of the scrutiny of the figures of both the sets of books.

1. Factory overhead under recovered	₹ 3,000
2. Administration overhead over recovered	₹ 2,000
3. Depreciation charged in financial books	₹ 60,000
4. Depreciation recovered in costs	₹ 65,000
5. Interest on investment not included in costs	₹ 10,000
6. Income-tax provided	₹ 60,000
7. Transfer fee (in financial Books)	₹ 1,000
8. Stores adjustment (credit in financial books)	₹ 1,000

Prepare Reconciliation Statement.

[7]

Answer:

- (a) (A) Overhead Cost after apportionment based on continuous distribution method would be as follows:

A ₹	B ₹	C ₹	X ₹	Y ₹
80,000	40,000	20,000	20,000	10,000
4,000	6,000	8,000	(20,000)	2,000
2,400	3,000	6,000	600	(12,000)
120	180	240	(600)	60
12	15	30	3	(60)
1	1	1	(3) *	-
86,533	49,196	34,271	-	-

* Equally distributed to all production cost centres, the amount remaining to be allocated is very small and insignificant.

(B) Simultaneous equation method:

Equation will be:

$$x = 20,000 + 5\% \text{ of } Y$$

$$y = 10,000 + 10\% \text{ of } X$$

Solving the equation, we get:

$$X = ₹ 20,603$$

$$Y = ₹ 12,060$$

**INTERMEDIATE EXAMINATION****SET - 1****MODEL ANSWERS****TERM – DECEMBER 2023****PAPER – 8****SYLLABUS 2022****COST ACCOUNTING**

Overheads of A, B and C will be as follows:

Details	A (₹)	B (₹)	C (₹)
Directly allocated	80,000	40,000	20,000
Share of X [20%, 30% & 40% of ₹ 20,600]	4,120	6,180	8,240
Share of Y [20%, 25% & 50% of ₹ 12,060]	2,412	3,015	6,030
Adhoc of residual amount of ₹3	1	1	1
	86,533	49,196	34,271

(b)

Reconciliation Statement

Particular	₹	₹
Net Profit as per Cost books		(1,64,000)
Add:		
Administration overhead over recovered	2,000	
Interest on investment not included in cost books	10,000	
Transfer fee recorded in financial books	1,000	
Depreciation under charged in financial books	5,000	19,000
		(1,45,000)
Less:		
Factory OH under recorded in cost books	3,000	
Income tax provided	60,000	63,000
		(2,08,000)
Net Profit as per financial books		(2,08,000)

4. (a) From the following information relating to a hotel, calculate the room rent to be charged to give a profit of 25% on cost excluding interest
- Salaries of staff: ₹1,02,200 p.a.
 - Wages of the room attendant: ₹4 per day
There is a room attendant for each room. He is paid wages only when the room is occupied
 - Lighting, Heating and Power
 - The normal lighting expenses for each room from the whole month is ₹100 when occupied
 - Power is used only in winter and the charges are ₹40 for a room, when occupied.
 - Repairs to buildings: ₹10,000 p.a.
 - Licence etc.: ₹4,800 p.a.
 - Sundries: ₹6,600 p.a.
 - Interior decoration and furnishing: ₹10,000 p.a.
 - Depreciation @5% is to be charged on buildings costing ₹4,00,000 and 10% on equipments.
 - Interest to be charged @20% on investment in building and equipments amounting to ₹5,00,000
 - There are 100 rooms in the hotel 80% of the rooms are generally occupied in summer and 30% in winter. The period of summer and winter may be considered to be of 6 months in each case: A month may be assumed of 30 days.

[7]

**INTERMEDIATE EXAMINATION****SET - 1****MODEL ANSWERS****TERM – DECEMBER 2023****PAPER – 8****SYLLABUS 2022****COST ACCOUNTING**

- (b) Deluxe limited undertook a contract for ₹5,00,000 on 1st July, 2022. On 30th June 2023 when the accounts were closed, the following details about the contract were gathered:

Materials purchased	1,00,000
Wages paid	45,000
General expenses	10,000
Plant Purchased	50,000
Materials on hand 30.6.2023	25,000
Wages accrued 30.6.2023	5,000
Work certified	2,00,000
Cash received	1,50,000
Depreciation of Plant	5,000
Work uncertified	15,000

The above contract contained an escalator clause which read as follows:

“In the event of prices of materials and rates of wages increase by more than 5% the contract price would be increased accordingly by 25% of the rise in the cost of materials and wages beyond 5% in each case”.

It was found that since the date of signing the agreement the prices of materials and wage rates increased by 25% the value of the work certify does not take into account the effect of the above clause.

Prepare the contract account. Working should form part of the answer. [7]

Answer:

- (a) Operating Cost Statement showing Room Rent per Day

(Room-Days: 19,800)

		Per annum
A. Total Cost		
Staff Salaries		1,02,000
Room Attendant's wages [Refer to Working Note (ii)]		79,200
Lighting, Heating and Power [Refer to Working Note (iii)]		73,200
Repair to buildings		10,000
License etc.		4,800
Sundries		6,600
Interior Decoration and Furnishing		10,000
Depreciation on:		
Building @ 5% on ₹ 4,000,00	₹ 20,000	
Other Equipment @ 10% (5,00,000 - 4,00,000)	₹ 10,000	30,000
Interest on Investments (20% on ₹ 5,00,000)		1,00,000
Total Cost		4,16,000
B. Profit @ 25% on cost excluding interest (i.e. 25% on ₹ 3,16,000)		79,000
C. Total Rent to be charged for all rooms (A+B)		4,95,000
D. Room-days		19,800
E. Room Rent per day (C/D)		25

**INTERMEDIATE EXAMINATION****SET - 1****MODEL ANSWERS****TERM – DECEMBER 2023****PAPER – 8****SYLLABUS 2022****COST ACCOUNTING**

Working Notes:

(i)

Calculation of Room Days:	
Summer: 100 rooms x 80/100 x 6 months x 30 days	=14,400
Winter: 100 rooms x 30/100 x 6 months x 30 days	=5,400
Total	19,800

(ii)

Calculation of Room Attendants' Wages:	
Summer: ₹ 4 x 100 rooms x 80% x 6 months x 30 days	= ₹ 57,600
Winter: ₹ 4 x 100 rooms x 30% x 6 months x 30 days	= ₹ 21,600
Total	₹ 79,200

(iii)

Calculation of Lighting, Heating and Power:	
Lighting:	
Summer: ₹ 100 x 100 rooms x 80% x 6 months	= ₹ 48,000
Winter: ₹ 100 x 100 rooms x 30% x 6 months	= ₹ 18,000
Power:	
Winter: ₹ 40 x 100 rooms x 30% x 6 months	= ₹ 7,200
Total	₹ 73,200

(b)

Contract Account of Deluxe Limited

(For the year ending 30th June 2023)

	₹	₹		₹
To Materials		1,00,000	By Work in progress A/c:	
To Wages Paid	45,000		Work certified	2,00,000
To Wages Accrued	<u>5,000</u>	50,000	Work uncertified	15,000
			By Materials in hand	25,000
To General Expenses		10,000	By Contract escalation (Note 1)	5,000
To Plant Depreciation		5,000		
To Balance c/d (National profit)		80,000		
		<u>2,45,000</u>		<u>2,45,000</u>
To P & L A/c (Note 2)		20,000	By Balance b/d	80,000
To Work in progress		60,000		
		<u>80,000</u>		<u>80,000</u>

Note 1- Calculation of escalation amount

Material and Wages increased by 25%

(A) Increase in material price (₹ 1,00,000 – ₹ 25,000) x (25/125) = ₹ 15,000

(B) Increase in wages (₹ 50,000 x (25/125)) = ₹ 10,000

Total Increase = ₹ 25,000



It is 5% of contract price

Escalation is 25% of the rise in the cost of material and wage beyond 5% in each case.

25% increase = ₹ 25,000

∴ 5% increase = 5,000

Escalation = 25% of (₹25,000 - ₹5,000) = ₹5,000

Note 2 – Profit to be credited to P & L A/c

$$\text{Profit} = \frac{1}{3} \times \frac{\text{Cash received}}{\text{Work certified}} \times \text{National Profit} = \frac{1}{3} \times \frac{1,50,000}{2,00,000} \times 80,000 = ₹20,000$$

Since contract completion is less than 50% only 1/3rd profit as restricted by ratio of cash received to work certified is transferred to P & L A/c

5. (a) A product passes through two processes. The output of Process I becomes the input of Process II and the output of Process II is transferred to warehouse. The quantity of raw materials introduced into process I is 20,000 kgs. at ₹10 per kg. The cost and output data for the month under review are as under:

Particulars	Process I	Process II
Direct materials	₹60,000	₹ 40,000
Direct labour	₹40,000	₹ 30,000
Production overheads	₹39,000	₹40,250
Normal loss	8 %	5%
Output	18,000	17,400
Loss realization of ₹/Unit	2.00	3.00

The company's policy is to fix the selling price of the end product in such a way as to yield a profit of 20% on selling price.

Required: (i) Prepare the Process Accounts, (ii) Determine the selling price per unit to the end product. [7]

- (b) The standard material inputs required for 1,000 kgs. of a finished product are given below:

Material	Quantity (in kg)	Standard rate per kg. (in ₹)
P	450	20
Q	400	40
R	250	60
	1,100	
Standard loss	100	
Standard output	1,000	

Actual production in a period was 20,000 kgs. of the finished product for which the actual quantities of material used and the prices paid thereof, are as under:

Material	Quantity (in kgs)	Standard rate per kg. (in ₹)
P	10,000	19
Q	8,500	42
R	4,500	65

**INTERMEDIATE EXAMINATION****SET - 1****MODEL ANSWERS****TERM – DECEMBER 2023****PAPER – 8****SYLLABUS 2022****COST ACCOUNTING****Calculate:**

- (i) **Material Cost Variances;**
- (ii) **Material Price Variance;**
- (iii) **Material Usage Variance;**
- (iv) **Material Mix Variance;**
- (v) **Material Yield Variance.**

Present a reconciliation among the variances.**[7]****Answer:****(a)**

Dr.				Process I A/c				Cr.			
Particulars	Kgs.	Rate (₹)	Amount (₹)	Particulars	Kgs.	Rate (₹)	Amount (₹)				
To Raw materials	20,000	10.00	2,00,000	By Normal loss	1,600	2.00	3,200				
To Direct materials			60,000	By Abnormal loss	400	18.25	7,300				
To Direct labour			40,000	By Transfer to Process II	18,000	18.25	3,28,500				
To Production Overheads			39,000								
	20,000		3,39,000		20,000		3,39,000				

Dr.				Process II A/c				Cr.			
Particulars	Kgs.	Rate (₹)	Amount (₹)	Particulars	Kgs.	Rate (₹)	Amount (₹)				
To Process I A/c	18,000	18.25	3,28,500	By Normal loss	900	3.00	2,700				
To Direct materials			40,000	By Tr. to Warehouse	17,400	25.50	4,43,700				
To Direct labour			30,000								
To Production overhead			40,250								
To Abnormal gain	300	25.50	7,650								
	18,300		4,46,400		18,300		4,46,400				

(b) For Material Cost Variances:

M₁-Actual cost of material used (AQ x AR)			
	Actual Qty. (AQ) (kg.)	Actual Rate (AR) (₹)	Amount (₹)
P	10,000	19	1,90,000
Q	8,500	42	3,57,000
R	4,500	65	2,92,500
			8,39,500



COST ACCOUNTING

M ₂ - Standard cost of material used (AQ x SR)			
	Actual Qty. (AQ) (kg.)	Standard Rate (SR) (₹)	Amount (₹)
P	10,000	20	2,00,000
Q	8,500	40	3,40,000
R	4,500	65	2,70,000
			8,10,000

M ₃ - Standard cost of material if it had been used in standard proportion			
	Standard Proportion	Standard Rate	Amount
P	23,000 x 450/1,100 X	20	1,88,182
Q	23,000 x 400/1,100 X	40	3,34,545
R	23,000 x 250/1,100 X	60	3,13,636
			8,36,363

M ₄ - Standard cost of output (SQ X SR)			
	Standard Qty. for 20,000kg	Standard Rate	Amount
P	450 x 20 = 9000 X	20	1,80,000
Q	400 x 20 = 8,000 X	40	3,20,000
R	250 x 20 = 5,000 X	60	3,00,000
			8,00,000

Calculation of Variance:

Material Price Variance	= M ₁ -M ₂	= ₹ 8,39,500 - ₹ 8,10,000 = ₹ 29,500 (A)
Material Mix Variance	= M ₂ -M ₃	= ₹ 8,10,000 - ₹ 8,36,363 = ₹ 26,363 (F)
Material Yield Variance	= M ₃ -M ₄	= ₹ 8,36,363 - ₹ 8,00,000 = ₹ 36,363 (A)
Material Usage Variance	= M ₂ -M ₄	= ₹ 8,10,000 - ₹ 8,00,000 = ₹ 10,000 (A)
Material Cost Variance	= M ₁ -M ₄	= ₹ 8,39,500 - ₹ 8,00,000 = ₹ 39,500 (A)

Reconciliation

Material Usage Variance	=	Material Mix Variance + Material Yield Variance
	=	₹ 26,363(F) + 36,363 (A)
	=	₹ 10,000 (A)
Material Cost Variance	=	Material Price Variance + Material usage Variance
	=	₹ 39,500 (A)

6. The Chief Cost Accountant of a company running an orchard with an adequate supply of labour, presents the following data and request you to advise about the area to be allotted for the cultivation of various types of fruits, which would result in maximization of profits.

The company contemplates growing Apples, Lemons, Oranges and Peaches:

Particulars	Apples	Lemons	Oranges	Peaches
Selling Price per box(₹)	15	15	30	45
Season yield in boxes per acre	500	150	100	200

**INTERMEDIATE EXAMINATION****SET - 1****MODEL ANSWERS****TERM – DECEMBER 2023****PAPER – 8****SYLLABUS 2022****COST ACCOUNTING**

Costs:	₹	₹	₹	₹
Material per acre	270	105	90	150
Labour: Growing per acre	300	225	150	195
Picking and Packing per box	1.50	1.50	3	4.50
Transport per box	3	3	1.50	4.50

The Total Fixed Costs in each season would be ₹ 2,10,000

The following limitations are also placed before you:

- The area available is 450 acres but not of this, 300 acres are suitable for growing only oranges and lemons. The balance of 150 acres is suitable for growing any of the four fruits.
- The marketing strategy of the company requires the compulsory production of all the four types of fruits in a season and the minimum quantity of any one type to be 18,000 boxes. Calculate the total profit that would accrue if your advice is followed. [14]

Answer:

Statement Showing Contribution per Acre

Particulars	Apples	Lemons	Oranges	Peaches
Selling Price per box (₹)	15	15	30	45
Season yield in boxed per acre	500	150	100	200
Sales Value per acre (A) (₹)	7500	2250	3000	9000
Material Cost per acre (₹)	270	105	90	150
Labour: Growing per acre (₹)	300	225	150	195
Picking, Packing and Transport per acre (₹)				
500 x 4.50	2,250			
150 x 4.50		675		
100 x 4.50			450	
200 x 9				1,800
Variable Cost per acre (₹) (B)	2,820	1,005	69	2,145
Contribution per acre (A)-(B)(₹)	4,680	1,245	2,310	6,800
Preference according to Contribution per acre	II	IV	III	I

Since the minimum quantity of production of each type is 18,000 boxes and all the four types of fruits have to be produced, the minimum acreage to be allocated to each fruit would be as follows:

Apples	=	18,000/500	=	36 acres
Lemons	=	18,000/150	=	120 acres
Oranges	=	18,000/100	=	180 acres
Peaches	=	18,000/200	=	90 acres
Total				426 acres

Lemons and oranges require 300 acres total to produce. Moreover, 300 acres of land is suitable only for these two products, hence 300 acres would be used to produce only these products. The balance of 24 acres (i.e. 450-426) is available for production of any of the fruits. Since the peaches give the highest contribution per acre and hence they should be preferred to allocation of 24 acres. The total acreage for peaches would therefore be 90+24=114 acres.



COST ACCOUNTING

Statement of Profit

Particulars	Apples	Lemons	Oranges	Peaches	Total
Area(acres)	36	120	180	114	450
Contribution per acre (₹)	4,680	1,245	2,310	6,855	
Total Contribution (₹)	1,68,480	1,49,400	4,15,800	7,81,470	15,15,150
Less: Fixed Cost (₹)					2,10,000
Total Profit (₹)					13,05,150

7. (a) A factory is currently running at 50% capacity and produces 5,000 units at a cost of ₹90 per unit as per details below:

Material	₹50
Labour	15
Factory Overheads	15 (₹ 6/- fixed)
Administrative Overheads	10 (₹ 5/- fixed)

The current selling price is ₹100 per unit.

At 60% working, material cost per unit increase by 2% and selling price per unit falls by 2%.

At 80% working, material cost per unit increase by 5 % and selling price per unit falls by 5%.

Compute and estimate profits of the factory at 60% and 80% working and offer your comments.

[7]

- (b) Describe the objectives and functions of Cost Accounting Standards Board.

[7]

Answer:

- (a)

Flexible Budget

Capacity	50%	60%	80%
Production (units)	5,000	6,000	8,000
	₹ per unit		
Material	50	51	52.50
Labour	15	15	15.00
Variable Overheads:			
Factory	9	9	9.00
Administration	5	5	5.00
Variable costs per unit	79	80	81.50
Total Variable cost	₹ 3,95,000	₹ 4,80,00	₹ 6,52,000
Fixed Overheads:			
Factory (₹)	30,000	30,000	30,000
Administration (₹)	25,000	25,000	25,000
Total cost of production (₹)	4,50,00	5,35,000	7,07,000
Selling price per unit@ ₹ 100 (₹)	5,00,000	5,88,000	7,60,000
Profit (₹)	50,000	53,000	53,000

Comments: It is clear from above working that profit has gone up by ₹ 3,000 by utilization of additional 10% capacity despite given changes. However, by increasing the capacity utilization from 60% to 80%, the profit gets neutralized by increase in cost and decrease in selling price.



- (b) The objectives of the Cost Accounting Standards Board (CASB) are to develop high quality Cost Accounting Standards to enable the management to take informed decisions and to enable regulators to function more effectively by integrating, harmonizing and standardizing Cost Accounting Principles and Practices.

The following are the functions of the CASB: -

- (A) To issue the framework for the Cost Accounting Standards.
- (B) To equip the Cost & Management Accounting professionals with better guidelines on Cost Accounting Principles.
- (C) To assist the members in preparation of uniform cost statements under various statutes.
- (D) To provide from time to time interpretations on Cost Accounting Standards.
- (E) To issue application guidance relating to a particular standard.
- (F) To propagate the Cost Accounting Standards and to persuade the users to adopt them in the preparation and presentation of General Purpose Cost Statement.
- (G) To persuade the Government and appropriate authorities to enforce Cost Accounting Standards, to facilitate the adoption thereof, by industry and corporate entities in order to achieve the desired objectives of standardization of Cost Accounting Practices.
- (H) To educate the users about the utility and the need for compliance of Cost Accounting Standards.

8. (a) Explain the objectives of cost accounting. [4]
- (b) Summarize the principle of measurement of direct expenses as per CAS-10. [5]
- (c) Prepare a statement showing the differences between 'Bin Card' and 'Stores Ledger. [5]

Answer:

- (a) Objective of Cost Accounting:

The following are the main objective of Cost Accounting: -

1. To ascertain the Costs under the different situation using different techniques and systems of costing
2. To determine the selling prices under different circumstances.
3. To determine and control efficiency by setting standards for Materials, Labour and Overheads
4. To determine the value of closing inventory for preparing financial statements of the concern
5. To provide a basis for operating policies which may be determination of Cost Volume relationship, whether to close or operate at a loss, whether to manufacture or buy from market, whether to continue the existing method of production or to replace it by a more improve method of production.....etc.

- (b) Principle of measurement of direct expenses as per CAS-10:

1. Identification of Direct Expenses shall be based on traceability in an economically feasible manner.
- 2.(i) Direct expenses incurred for the use of bought out resources shall be determined at invoice or agreed price including duties and taxes, and other expenditure directly attributable thereto net of trade discounts, rebates, taxes and duties refundable or to be credited.
- 2.(ii) Direct expenses other than those referred to in paragraph 5.2.1 shall be determined on the basis of amount incurred in connection therewith.



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- 2.(iii) Direct Expenses paid or incurred in lump-sum or which are in the nature of ‘one – time’ payment, shall be amortised on the basis of the estimated output or benefit to be derived from such direct expenses.
3. If an item of Direct Expenses does not meet the test of materiality, it can be treated as part of overheads.
4. Finance costs incurred in connection with the self-generated or procured resources shall not form part of Direct Expenses.
5. Direct Expenses shall not include imputed costs. In case of goods produced for captive consumption, treatment of imputed cost shall be in accordance with Cost Accounting Standard – 4 (CAS-4).
6. Where direct expenses are accounted at standard cost, variances due to normal reasons shall be treated as part of the Direct Expenses. Variances due to abnormal reasons shall not form part of the Direct Expenses.
7. Any Subsidy/Grant/ Incentive or any such payment received/receivable with respect to any Direct Expenses shall be reduced for ascertainment of the cost of the cost object to which such amounts are related.
8. Any abnormal portion of the direct expenses where it is material and quantifiable shall not form part of the Direct Expenses.
9. Penalties, damages paid to statutory authorities or other third parties shall not form part of the Direct Expenses.
10. Credits/ recoveries relating to the Direct Expenses, material and quantifiable, shall be deducted to arrive at the net Direct Expenses.
11. Any change in the cost accounting principles applied for the measurement of the Direct Expenses should be made only if, it is required by law or for compliance with the requirements of a cost accounting standard, or a change would result in a more appropriate preparation or presentation of cost statements of an organisation.

(c) Difference between Bin Card and Stores Ledger: -

Bin Card	Stores Ledger
(1) It is maintained by the store keeper	(1) It is maintained in the Costing department.
(2) It contains only quantitative details of material	(2) It contains information both in quantity and value
(3) Entries are made when transactions take place	(3) It is always posted after the transaction.
(4) Each transaction is individually posted	(4) Transactions may be summarized and then posted
(5) Inter-department transfers do not appear in Bin Card	(5) Material transfers from one job to another job are recorded for costing purpose.