INTERMEDIATE EXAMINATION
Syllabus 2016

Paper 8: COST ACCOUNTING (CAC)

Time Allowed: 3 Hours **Full Marks: 100**

There are Sections A, B, C and D to be answered subject to instructions given against each.

Section A **You are required to answer all the questions. Each question carries 1 mark.** **Instructions: Each question is followed by 4 Answer choices and only one is correct.** **You are required to select the choice which according to you represents the correct answer.**					**20 × 1 = 20 Marks**
1.					
	a.	Notional cost is a _____ .			
		(i)	Imputed cost	A	
		(ii)	Real cost		
		(iii)	Normal cost		
		(iv)	Variable cost		
	b.	Sale of defective goods is ?			
		(i)	Reduced from cost of production	A	
		(ii)	Added from cost of production		
		(iii)	No relation with cost of production		
		(iv)	None of the above		
	c.	Which among the following is not a part of cost accounting?			
		(i)	Product Costing		
		(ii)	Planning		
		(iii)	Profit sharing	A	
		(iv)	Controlling		
	d.	Cost incurred due to shortage of stock is known as: Choose the most appropriate word from the choices below.			

		(i)	Out of stock cost	A	
		(ii)	Imputed cost		
		(iii)	Urgent cost		
		(iv)	Abnormal cost		
	e.	There is a profit as per financial account amounting to Rs. 20,000, donation not shown in cost accounts amount to Rs. 8,000. what would be the profit or loss as per cost accounting?			
		(i)	Profit of Rs. 12,000		
		(ii)	Profit of Rs. 28,000	A	
		(iii)	Loss of Rs. 12,000		
		(iv)	Loss of Rs. 28,000		
	f.	Which of the following methods smoothes out the effect of fluctuations when material prices fluctuate widely?			
		(i)	FIFO		
		(ii)	LIFO		
		(iii)	Weighted average	A	
		(iv)	Average method		
	g.	What is Idle time?			
		(i)	Time spent by workers off their work	A	
		(ii)	Time spent by workers on their job		
		(iii)	Time spent by workers in office		
		(iv)	Time spent by workers in factory		
	h.	Which standard deals with “production and operation overhead”?			
		(i)	CAS – 8		
		(ii)	CAS – 3	A	

		(iii)	CAS – 10		
		(iv)	CAS – 12		
	i.	Spoilage that occurs under inefficient operating conditions and is generally controllable is called:			
		(i)	Normal defectives		
		(ii)	Abnormal spoilage	A	
		(iii)	Normal spoilage		
		(iv)	None of the above		
	j.	Absolute Tonne-km. is an example of:			
		(i)	Composite unit for bus operation		
		(ii)	Composite unit of transport sector	A	
		(iii)	Composite unit for oil and natural gas		
		(iv)	All of the above		
	k.	Which among the following methods are used when standardized products are manufactured under a series of inter-connected operations?			
		(i)	Job costing method		
		(ii)	Process costing method	A	
		(iii)	Standard costing method		
		(iv)	All of the above		
	l.	For a toy manufacturing company, which among the following is most suitable			
		(i)	Multiple costing		
		(ii)	Process costing		
		(iii)	Batch costing	A	
		(iv)	Unit costing		

	m.	Which costing method is adopted in cement industries_____ . Which word(s) according to you appropriately fills in above blank?			
		(i)	Job Costing		
		(ii)	Contract Costing		
		(iii)	Operating Costing		
		(iv)	Process Costing	A	
	n.	Batch costing method is suitable for_____			
		(i)	Sugar Industry		
		(ii)	Chemical Industry		
		(iii)	Pharma Industry	A	
		(iv)	Oil Industry		
	o.	What is the labour rate variance if standard hours for 100 units of output are 400 @ Rs. 2 per hour and actual hours taken are 380 @ Rs. 2.25 per hour?			
		(i)	Rs. 95 (adverse)	A	
		(ii)	Rs. 100 (adverse)		
		(iii)	Rs. 120 (adverse)		
		(iv)	Rs. 25 (favourable)		
	p.	Which of the following is not a reason for an idle time variance?			
		(i)	strike and lockouts		
		(ii)	power failure		
		(iii)	uncontrollable loss of time	A	
		(iv)	machine breakdown		
	q.	The difference between fixed cost and variable cost assumes significance in the preparation of which of the following budget?			
		(i)	Flexible budget	A	

		(ii)	Master budget		
		(iii)	Capital budget		
		(iv)	Cash budget		
	r.	Which cost is considered under marginal costing?			
		(i)	Variable Cost	A	
		(ii)	Fixed Cost		
		(iii)	Semi-variable Cost		
		(iv)	Market Price		
	s.	Which among the following are not useful for managerial decision making?			
		(i)	Marginal Cost		
		(ii)	Standard Cost		
		(iii)	Sunk Cost	A	
		(iv)	None of the above		
	t.	When sales exceed production (in units) then profit under:			
		(i)	Marginal costing is higher than that of absorption costing	A	
		(ii)	Marginal costing is equal to that of absorption costing		
		(iii)	Marginal costing is lower than that of absorption costing		
		(iv)	None of the above		

Section B **You are required to answer all the questions. Each question carries 2 Mark.** **Instructions: Each question is followed by a space where you are required to type your answer.**			**10 × 2 =20 Marks**
2.	a.	What are explicit costs?	
		Type your answer here Costs which involve immediate payment of cash, salaries, wages etc. are known as explicit costs.	

	b.	What is the basis used for classifying inventory under FSN system of inventory control?	
		Type your answer here Frequency of the items of inventory use.	
	c.	How is the direct labour hour rate calculated?	
		Type your answer here The direct labor hour rate is computed by dividing the overheads by the aggregate of the productive hours of direct workers.	
	d.	In a company there were 1200 employee on the rolls at the beginning of a year and 1180 at the end. During the year 120 persons left services and 96 replacements were made. What is the percentage of labour turnover to flux method ?	
		Type your answer here 9.08 **Rough Work** ½ x (96+120)/(1180 + 1200) x 100 = 9.08%	
	e.	What is Economic Batch Quantity?	
		Type your answer here Economic Batch Quantity refers to the optimum quantity batch which should be produced at a point of time so that the Set up & Processing Costs and Carrying Costs are together optimized.	
	f.	In a process 8000 units are introduced during a period. 5% of input is normal loss. Closing work in progress 60% complete is 1000 units. 6600 completed units are transferred to next process. Equivalent production for the period is:	
		Type your answer here 7,200 unit	
	g.	What are joint costs?	
		Type your answer here Costs incurred prior to the split off point are known as Joint costs.	
	h.	A firm has Fixed Expenses of Rs. 1,80,000, Sales of Rs. 6,00,000 and Profit of Rs. 1,20,000. What is the value of P/V Ratio of the firm ?	
		Type your answer here 50%	
	i.	Standard price of material per kg is Rs. 20, standard usage per unit of production is 5 kg. Actual usage of production 100 units is 520 kgs, all of which was purchase at the rate of Rs. 22 per kg.	

		Calculate material cost variance.	
		Type your answer here 1,440 Adverse	
	j.	Standard price of material per kg Rs. 20, standards consumption per unit of production is 5 kg. Standard material cost for producing 100 units is	
		Type your answer here Rs. 10,000	
Section C You are required to answer any 4 out of 6 questions in this section Instructions: Each question is followed by a space where you are required to type your answer.			**12 × 4 = 48 Marks**
3.	a.	The following data were obtained from the books of A Company for the half-year ended 30th September 2020:	

Expenses	Amount (Rs.)
Store Overhead	800
Motive Power	3,000
Electric Lighting	400
Labour Welfare	6,000
Depreciation	12,000
Repair and Maintenance	2,400
General Overhead	20,000
Rent And Taxes	1,200

Particulars	Production department			Service department	
	P1	P2	P3	S1	S2
Area (sq. ft.)	400	300	300	100	100
Direct wages (Rs)	14000	12000	10000	2000	2000
Direct Material (Rs.)	6000	5000	4000	3000	2000
Value of Plant (Rs.)	50000	30000	20000	10000	10000
Employees (No.)	800	600	600	200	200

		Horse Power of Plant	8000	6000	6000	2000	3000
		light point (No.)	10	15	15	5	5
	(i)	What is the value of overheads allocated to each department?					4

Type your answer here

Overheads allocated:

P1 - 16,640

P2 - 12,440

P3 - 10,200

S1 - 8200

S2 - 7280

ROUGH WORK

Statement of Primary Distribution of Overheads

Expenses	Total(Rs.)	Basis	P1(Rs.)	P2(Rs.)	P3(Rs.)	S1(Rs.)	S2(Rs.)
Direct wages	4,000	Actual	-	-	-	2,000	2,000
Direct material	5,000	Actual	-	-	-	3,000	2,000
Depreciation	12,000	Plant Value	5,000	3,000	2,000	1000	1,000
Lighting	400	No of points	80	120	120	40	40
Store overhead	800	Direct material	240	200	160	120	80
Motive power	3,000	horse power	960	720	720	240	360
Labour welfare	6,000	employees	2,000	1,500	1,500	500	500
Repair and maintenance	2,400	Plant Value	1,000	600	400	200	200
General overhead	20,000	direct wages	7,000	6,000	5,000	1000	1,000
Rent and taxes	1,200	area occupied	400	300	300	100	100
Total	54,800		16,680	12,440	10,200	8,200	7,280

(ii) What is the value of the overheads of the production department post re-distribution of the service departments of the overheads, if the expense of department S1 apportion in the ratio of 4:3:3 and that of department S2 in proportion of direct wages? — 4

Type your answer here

Overheads of the production departments:

P1 = Rs.22791

P2 = Rs.17327

P3 = Rs.14682

ROUGH WORK

Statement of Distribution of Service Department Costs to Primary Departments

Particulars	P1	P2	P3
	Rs.	Rs.	Rs.
Overhead Costs as per Primary Distribution	16680	12440	10200
Distribution of Service Department Costs:			
S1 (8200)	3280	2460	2460
S2 (7280)	2831	2427	2022
TOTAL	22791	17327	14682

Working Notes:

Basis of Distribution of Service Department Costs

S1: 4:3:3 (given)

S2: direct wages (7:6:5)

b. R Limited has received an offer of quantity discount on its order of materials as under: — 4

Tonnes	Price per Tonne
100 and less than 200	Rs. 9,120
200 and less than 300	Rs. 8,880
300 and above	Rs. 8,640

Additional Information:

The annual requirement for the material is 500 tonnes. The ordering cost per order is Rs 12,500 and the stock holding cost is estimated at 25% of the material cost per annum.

What is the Economic Order Quantity?

Type your answer here Most Economical Purchase Level: 300 tonnes

Rough Work

Computation of Most Economical Order Level

Order size (tonnes)	100	200	300	400

		No. of orders	5	3	2	2
		Cost of purchase (Rs.) (A)	45,60,000 (500×9120	44,40,000 (500×8880	43,20,000 (500×8640	43,20,000 (500×8640
		Ordering cost (Rs.) (B)	62,500	37,500	25,000	25,000
		Carrying cost (Rs.) (C)	1,14,000	2,22,000	3,24,000	4,32,000
		Total (Rs.) [(A) + (B) + (C)]	47,36,500	46,99,500	46,69,000	47,77,000

The above table shows that the total cost of 500 units including ordering and carrying cost is minimum (46,69,000) where the order size is 300 units. Hence the most economical purchase level is 300 units.

4.	a.	The components A and B are used as follows: Normal usage .... 300 units per week each Maximum usage .... 450 units per week each Minimum usage .... 150 units per week each Reorder Quantity .... A 2,400 units; B 3,600 units. Reorder period .... A 4 to 6 weeks, B 2 to 4 weeks. Calculate for each component: (i) Re-order Level (ii) Minimum Level (iii) Maximum Level (iv) Average Stock Level	4

Type your answer here

i. Re-order Level = A - 2700 units ; B – 1800 units
ii. Minimum Level = A - 1200 units ; B - 900 units
iii. Maximum Level = A - 4500 units ; B – 5100 units
iv. Average Stock Level = A - 2850 units or 2400 units ; B - 3000 units or 2700 units

ROUGH WORK

	Particulars	A	B
(i)	Reorder Level [Max. Consumption x Max. Re-order Period]	2700 units (450 x 6)	1800 units (450 x 4)
(ii)	Minimum Level [ROL – (Normal Consumption x Normal Re-order period)]	1200 units [2700 – (300 x 5)]	900 units [1800 – (300 x 3)]
(iii)	Maximum Level [ROL + ROQ – (Min. Consumption x Min. Re-order Period)]	4500 units [2700 + 2400 – (150 x 4)]	5100 units [1800 + 3600 – (150 x 2)]
(iv)	Average Stock Level [Min. Level + Max. Level]/2 OR [Min. level + ½ re – Order Quantity}	2850 units [4500 + 1200]/2 (or) 2400 units 1200 + ½ (2400)	3000 units [5100 + 900]/2 (or) 2700 units 900 + ½ (3600)

<table>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td>b.</td><td>The management of XYZ Ltd. is worried about the increasing Labour Turnover in the factory and before analyzing the causes and taking remedial steps; they want to have an idea of the profit foregone as a result of Labour Turnover during the last year. Last year's sales amounted to Rs. 83, 03,300 and the profit/volume ratio was 20%. The total number of actual hours worked by the direct Labour force was 4.45 lakhs. As a result of the delays by the Personnel department in filling vacancies due to Labour Turnover 1,00,000 potentially productive hours were lost. The Actual Direct Labour hours included 30, 000 hours attributable to training new recruits, out of which, half of the hours were unproductive. The cost incurred consequent on Labour turnover revealed, on analysis the following. Settlement cost due to leaving: Rs. 43, 820 & Recruitment costs: Rs. 26,740. Selection costs: Rs. 12,750, & Training costs: Rs. 30,490.
Assuming that the potential production lost as a consequence of Labour Turnover could have been sold at prevailing prices.What is the profit foregone last year on account of Labour Turnover?</td><td>5</td></tr>
<tr><td></td><td></td><td>Type your answer here
Profit foregone last year on account of Labour Turnover=4,30,000 actual productive hours.
ROUGH WORK
1)Actual productive hours: Actual hours worked – Unproductive training hours
= 4,45,000 – 15,000 [50% of 30, 000]
= 4,30,000 actual productive hours.
Total hours lost: 1,00,000 hrs
Sales lost [Rs. 83,03,300 × 1,00,000]/4,30,000 = Rs. 19,31,000
Loss of contribution – 20% of Rs.19,31,000 = Rs.3,86,200
Profit foregone = Rs. 5,00,000

2) Statement Showing Profit Foregone
<table>
<tr><td></td><td>Amount (Rs.)</td></tr>
<tr><td>Contribution lost:</td><td>3,86,200</td></tr>
<tr><td>Settlement cost due to leaving:</td><td>43,820</td></tr>
<tr><td>Recruitment Cost:</td><td>26,740</td></tr>
<tr><td>Selection Cost :</td><td>12,750</td></tr>
<tr><td>Training Cost :</td><td>30,490</td></tr>
<tr><td>Profit foregone :</td><td>5,00,000</td></tr>
</table></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td>c.</td><td>Gross pay Rs.10,30,000 (including cost of idle time hours paid to employee Rs. 25,000); Accommodation provided to employee free of cost [this accommodation is owned by employer, depreciation of accommodation Rs.1,00,000, maintenance charges of the accommodation Rs. 90,000, municipal tax paid for this accommodation Rs. 3,000], Employer's Contribution to P.F. Rs. 1,00,000 (including a penalty of Rs. 2,000 for violation of PF rules), Employee's Contribution to P.F. Rs. 75,000. What is the Employee cost?</td><td>3</td></tr>
<tr><td></td><td></td><td>Type your answer here Employee Cost = Rs. 12,96,000
ROUGH WORK</td><td></td></tr>
</table>

	Particulars	Amount (₹)
	Gross Pay (net of cost of idle time) =[10,30,000 (-) 25,000]	10,05,000
Add	Cost of accommodation provided by employer = Depreciation (+) Municipal Tax paid (+) maintenance charges = 1,00,000 + 90,000 + 3,000 = 1,93,000	1,93,000
Add	Employer's Contribution to PF excluding penalty paid to PF authorities [= 1,00,000 (-) 2,000]	98,000
	Employee Cost	**12,96,000**

5.	a.	A contractor undertook a contract for Rs. 5 lakh on 1-07-2020 for the construction of a library building. On 30-06-2021, when the accounts were closed, the following details about the contract were gathered:	7

Particulars	(Rs.)
Materials purchased	1,00,000
wages paid	45,000
General expenses	9,000
Plant purchased	60,000
Material in hand on 30-06-2021	25,000
Wages accrued 30-06-2021	5,000
Work certified	2,00,000
Work uncertified	15,000
Cash received	1,50,000
Plant depreciation	6,000

The above contract contains an escalation clause which reads as follows. 'In the event the price 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 price of materials and wage rates increased by 25%. The value of work certified does not take into account the effect of the above clause.
(a) Determine the escalation value?
(b) What is the amount of profit transferred to P/L A/c?
(c) What is the amount transferred to reserve?

Type your answer here
(a) Escalation value – Rs. 5,000
(b) Profit transferred to P/L A/c – Rs. 20,000
(c) Amount transferred to reserve - Rs. 60,000

ROUGH WORK

Contract Account (for the year ended 30th, June 2021)

Dr. Cr.

Particulars		Rs.	Particulars	Rs.
To Materials		1,00,000	By WIP:	
To Labour	45,000		work certified	2,00,000
Add: Accrued	5,000	50,000		
To General expense		9,000	work uncertified	15,000
To Depreciation		6,000	By material in hand	25,000
			By contract escalation	5,000
To Balance c/d (Notional profit)		80,000		
		2,45,000		2,45,000
To P&L a/c (80000*⅓*150000/200000)		20,000	By balance b/d	80,000
To balance c/d (reserve)		60,000		
		80,000		80,000

Working Notes:

a) Calculation of Escalation:

material consumed = 1,00,000 – 25,000 = 75,000

increased in material cost = 75,000 * 25/125 = 15,000

wags = 45,000 + 5,000 = 50,000

increase in wages = 50,000*25/125 = 10,000

Total increase 25,000

since the increase in materials and wages is more than 5%, the escalation will apply. escalation is 25% of the increase in the cost of material and wages beyond 5%.

25% increase 25,000

less: 5% increase 5,000

increased beyond = 20,000

escalation = 20,000*25% = 5,000

this contract escalation of 5000 will be credited to contract account.

b) As the contract is only 40% certified, only ⅓ of the profit in cash ratio has been transferred to P&L Account.

	b.	Mr. S has started a transport business with a fleet of 10 taxies. The various expenses incurred by him are given below: (i) Cost of each taxi Rs. 3,80,000. (ii) Salary of Office and garage Staff Rs. 38,000 p.m. (iii) Rent of Garage Rs. 12,000 p.m. (iv) Drivers Salary (per taxi) Rs. 4,000 p.m. (v) insurance, Road Tax and Repairs per taxi Rs. 55,200 p.a. The life of a taxi is 3,00,000 Km. and at the end of which it is estimated to be sold at Rs. 20,000. A taxi runs on an average 4,000 Km. per month. Petrol consumption is 12 km per litre of petrol costing Rs. 30 per litre. What is the cost of running a taxi per km?	5

Type your answer here

Cost of running a taxi per km = Rs. 7.10/km

Rough Work

Operating Cost Sheet

Particulars	Details/Computation	Per taxi p.m (Rs.)	Per Km (Rs.)
Fixed Expenses:			
Salary of office and garage staff	38000/10	3,800	
Rent of garage	12000/10	1,200	
Driver Salary		4,000	
Insurance, Road tax and repairs	55200/12	4,600	
Fixed Cost of 1 taxi per month		13,600	
Fixed Cost per Taxi per km	13600/4000		3.40
Running Costs:			
Depreciation	(3,80,000 - 20,000) / 3,00,000		1.20
Petrol			2.50
Total Cost per taxi per Km			7.10

6.	a.	AB Ltd.is committed to supply 24,000 bearings per annum to CD Ltd. On a steady basis. It is estimated that it costs 10 paise as inventory holding cost per bearing per month and that the set-up cost per run of bearing manufacture is Rs. 324. What is the minimum inventory holding cost at optimum run size?	4

Type your answer here Minimum holding cost (run size 3600 bearings) = Rs. 2160

ROUGH WORK

Optimum production Run Size (Q) = $\sqrt{\frac{2AS}{C}}$

Where, A = No. of units to be produced within one year = 24,000 (units) bearing

O = Set-up cost per production run = ₹ 324

C = Carrying cost per unit per annum = 0.10 × 12 = ₹ 1.2

$= \sqrt{\frac{2 \times 24,000 \times 324}{1.2}}$ = 3,600 units (bearing)

		Minimum inventory Holding Cost, if run size is 3600 bearings = Average inventory x carrying cost per unit = (3600/2) x (.10 x 12) = ₹ 2160	
	b.	State 3 differences between Absorption Costing and Marginal Costing	3
		Type your answer here 1. In Absorption Costing both fixed and variable costs are considered for product costing and inventory valuation whereas in Marginal Costing only variable costs are considered for product costing and inventory valuation. 2. Under Absorption Costing fixed costs are charged to the cost of production. Each product bears a reasonable share of fixed cost and thus the profitability of a product is influenced by the apportionment of fixed costs while under Marginal Costing fixed costs are regarded as period costs. The profitability of different products is judged by their P/V ratio. 3. Cost data are presented in conventional pattern. Net profit of each product is determined after subtracting fixed cost along with their variable cost in Absorption Costing. However in Marginal Costing cost data are presented to highlight the total contribution of each product.	
	c.	On the basis of the following data, determine the overhead rates at 70% and 80%.	5

Particulars	Amount (Rs.)
Production capacity	At 80%
Variable Overheads:	capacity
Indirect labour	12,000
Stores including spares	4,000
Semi Variable:	
Power (30% - Fixed: 70% -Variable)	20,000
Repairs (60%- Fixed: 40% -Variable)	2,000
Fixed Overheads:	
Depreciation	11,000
Insurance	3,000
Salaries	10,000
Total overheads	62,000
Estimated Direct Labour Hours	1,24,000

Type your answer here:

Overhead rate:

at 70% = 0.536

at 80% = 0.5

ROUGH WORK

Particulars	Capacity Utilisation	
	70%	80%
(A) Variable Overheads:		
Indirect labour	10,500	12,000
Stores including spares	3,500	4,000
Total (A)	14,000	16,000
(B) Semi Variable Overheads:		
Power	18,250	20,000
Repair	1,900	2,000
Total (B)	20,150	22,000
(C) Fixed Overheads:		
depreciation	11,000	11,000
insurance	3,000	3,000
salaries	10,000	10,000
Total (C)	24,000	24,000
Grand Total (A+B+C)	58,150	62,000
Labour hours	1,08,500 (124000*⅞)	1,24,000
Overhead rate per hour (Rs.)	= 0.536 (58150/108500)	= 0.50 (62000/124000)

Workings:

Semi Variable Overheads

	70%	80%
Variable	14000*(⅞)= 12250	14000*(9/8) = 15750
Fixed	6,000	6,000
Fixed	6,000	6,000
Total	18,250	21,750

Repairs

		<table><tr><td>Variable</td><td>800*(⅞) = 700</td><td>800*(9/8) = 900</td></tr><tr><td>Fixed</td><td>1,200</td><td>1,200</td></tr><tr><td>Total</td><td>1,900</td><td>2,100</td></tr></table>	
7.	a.	When the volume is 3,000 units, the average cost is Rs 4 per unit. When volume is 4,000 units, average cost is Rs 3.50 per unit. The break-even point is 5,000 units.	
	(i)	What is the profit volume ratio?	3
		Type your answer here Profit-volume ratio = 37.5% **ROUGH WORK** <table><tr><td></td><td>Output (units)</td><td>Average cost (Rs.)</td><td>Total cost (Rs.)</td></tr><tr><td></td><td>3,000</td><td>4</td><td>12,000</td></tr><tr><td></td><td>4,000</td><td>3.50</td><td>14,000</td></tr><tr><td>Difference</td><td>1,000</td><td></td><td>2,000</td></tr></table> Variable cost per unit = 2,000/1,000 = Rs 2 Total Fixed cost = 12000 - (3,000 units * 2) = Rs 6,000 At BEP: sales = Fixed cost + Variable cost Cost at 5,000 units = 6,000 + (5,000 * 2) = 16,000 BEP = fixed cost / p/v ratio 16,000 = 6,000 / p/v ratio p/v ratio = 6,000/16,000 = 37.50%	
	(ii)	If margin of safety is 40% of sales, what is the fixed cost when profit is Rs 2,00,000?	3
		Type your answer here Fixed cost = Rs. 30,000 **ROUGH WORK** Margin of Safety = 40%, thus BEP = 60% of sales Margin of Safety (M/S) = profit/ P/V ratio, BEP = Fixed cost / P/V ratio M/S/BEP = 40% of sales/ 60% of sales = Profit/pv ratio divided by fixed cost / pv ratio = Profit / Fixed cost = 40%/60% = ⅔ = ⅔ = Profit / Fixed cost = 20,000/Fixed cost = Fixed cost = 60000/2 = Rs 30,000	

b. For making 10 kg of Gemco, the standard material requirement is: 6

Material	Quantity (kg)	Rate per kg (Rs.)
A	8	6
B	4	4

During April, 1000 kg of Gemco were produced. The actual consumption of material is as under:

Material	Quantity (kg)	Rate per kg (Rs.)
A	750	7
B	500	5

Calculate:
Material Cost Variance
Material Price Variance
Material Usage Variance.

Type your answer here

Material Cost Variance - 1350 (A)
Material Price Variance - A = 750 (A), B = 500 (A)
Material Usage Variance - A = 300 (F), B = 400 (A)

ROUGH WORK

	Standard for 1000 kg			Actual for 1000 kg		
Material	Qty (kg)	Rate (Rs.)	Amount (Rs.)	Qty (kg)	Rate (Rs.)	Amount (Rs.)
A	800	6	4,800	750	7	5,250
B	400	4	1,600	500	5	2,500
Total	1,200		6,400	1,250		7,750

Calculation of variance:
Material cost variance: SC for actual cost - AC = 6400 - 7750 = 1350 (A)
Material price variance = (SP-AP) x AQ
A = (6-7 × 750 = 750 (A)
B = (4-5) × 500 = 500 (A)
= 1250 (A)
Material usage variance = (SQ- AQ) x SP
A = (800-750) × 6 = 300 (F)
B = (400-500) × 4 = 400 (A)
= 100 (A)

8.		**You are required to write Short Notes on any 4 out of 5 questions.**	**4× 3 = 12 Marks**
	(i)	Explain the Objectives of Cost Accounting Standard Board (CASB)	
		Type your answer here The objectives of the CASB are to develop high quality Cost Accounting Standards on important issues/topics relating to Cost and Management Accounting with the following objectives: (i) To issues the guidelines for Cost Accounting Standard. (ii) To equip the profession with better guidelines on standard cost accounting practices. (iii) To assists the Cost Accountant in preparation of uniform cost statements. (iv) To provide from time to time proper interpretations on various Cost Accounting Standards. (v) To assist the management to follow the standard cost accounting practices in the matter of compliances of statutory obligations. (vi) To issue appropriate guidelines relating to particular standard. (vii) To help Government and Industry towards better cost control and cost management. (viii) To assist the cost accountant to undertake cost audit in appropriate way as all cost statement are in uniform format.	
	(ii)	Role of the Cost Accountants in an organization. (Any 6)	
		Type your answer here The role of the cost accountants in the organisations can be enumerated as follows: (i) to analyse various elements of cost of production/services such as material, labour, overhead expenses etc. (ii) to introduce appropriate costing methods in the organisation so as to facilitate management with the knowledge of cost of production/services for managerial decision making (iii) to determine the cost of the new product/service in order to facilitate management in arriving at the correct pricing decisions (iv) to determine the feasibility and profitability of the various project proposals considered by the management (v) to analyse variances against standard by reason to enable concerned department to initiate corrective action (vi) collection, collation of extraneous information for management to compare the company's performance with that of peers and the industry for better appreciation and decision–making.	
	(iii)	Advantages of job costing (Any 3)	
		Type your answer here Job costing offers the following advantages: (a) The cost of material, labour and overhead for every job or product in a department is available daily, weekly or as often as required while the job is still in progress. (b) On completion of a job, the cost under each element is immediately ascertained. Costs may be compared with the selling prices of the products in order to determine their profitability and to decide which product lines should be pushed or discontinued. (c) Historical costs for past periods for each product, compiled by orders, departments, or	

		machines, provide useful statistics for future production planning and for estimating the costs of similar jobs to be taken up in future. This assists in the prompt furnishing of price quotations for specific jobs. (d) The adoption of predetermined overhead rates in job costing necessitates the application of a system of budgetary control of overhead with all its advantages. (e) The actual overhead costs are compared with the overhead applied at predetermined rates; thus, at the end of an accounting period, overhead variances can be analyzed. (f) Spoilage and defective work can be easily identified with specific jobs or products. (g) Job costing is particularly suitable for cost-plus and such other contracts where selling price is determined directly on the basis of costs .	
	(iv)	Any 6 limitations of Break-even analysis.	
		Type your answer here a. That Costs are either fixed or variable and all costs are clearly segregated into their fixed and variable elements. This cannot possibly be done accurately and the difficulties and complications involved in such segregation make the break-even point inaccurate. b. That the behavior of both costs and revenue is not entirely related to changes in volume. c. That costs and revenue patterns are linear over levels of output being considered. In practice, this is not always so and the linear relationship is true only within a short run relevant range. d. That fixed costs remain constant and variable costs vary in proportion to the volume. Fixed costs are constant only within a limited range and are liable to change at varying levels of activity and also over a long period, particularly when additional plants and equipments are introduced. e. That sales mix is constant or only one product is manufactured. A combined analysis taking all the products of the mix does not reflect the correct position regarding individual products. f. That production and sales figures are identical or the change in opening and closing stocks of the finished product is not significant. g. That the units of production on the various product range are identical. Otherwise, it is difficult to find a homogeneous factor to represent volume. h. That the activities and productivity of the concern remain unchanged during the period of study. i. As output is continuously varied within a limited range, the contribution margin remains relatively constant. This is possible mainly where the output is more or less homogeneous as in the case of process industries.	
	(v)	Causes of Direct Rate labour variance (Any 3).	
		Type your answer here a. Change in basic wage structure or change in piece-work rate. These will give rise to a variance till such time the standards are not revised b. Employment of workers of grades and rates of pay different from those specified, due to shortage of labour of the proper category, or through mistake, or due to retention of surplus labour c. Payment of guaranteed wages to workers who are unable to earn their normal wages if such guaranteed wages form part of direct labour cost d. Use of a different method of payment, e.g. payment at day-rates while standards are based	

		on piece-work method of remuneration. e. Higher or lower rates paid to casual and temporary workers employed to meet seasonal demands, or urgent or special work f. New workers not being allowed full normal wage rates g. Overtime and night shift work in excess of or less than the standard, or where no provision has been made in the standard. This will be applicable only if overtime and shift differential payments form part of the direct labour cost. h. The composition of a gang as regards the skill and rates of wages being different from that laid down in the standard .	
		Section D **You are required to answer all the questions in this section** **Instructions: Each question is followed by a space where you are required to type your answer.**	**12 × 1 = 12 Marks**
9.		Mr. Y has completed his graduation very recently and undertaken a course on entrepreneurship. He has learnt various concepts of cost and management accounting. He has managed to gather some funds amounting to Rs.50,000. However, applying the various concepts of cost and management accounting, he arrived at a conclusion that the fixed costs would amount to Rs. 75,000 per year. He had a discussion with a Cost and Management Account who opined that the Variable Cost would be 60% of Sales Revenue. However, Rs.50,000 would not be sufficient for starting the business instead Rs. 1,50,000 would be the total investment required for the business. Mr. Y seeks a 15% profit on the total investment in the business.	
	a.	Mr. Y is interested to know the P/V Ratio. You are required to assist him in commuting the P/V Ratio.	3
		Type your answer here P/V Ratio = 40% **ROUGH WORK** P/V Ratio= Sales - Variable cost =40 %	
	b.	Now he want to know that what sales volume must be obtained to reach at a position of no profit no loss situation?	3
		Type your answer here Break even sales = Rs. 1,87,500 **ROUGH WORK** b) Break even sales = Sales/Profit volume ration =75,000 / 40% = Rs. 1,87,500	

	c.	Mr Y want to achieve 15 % return on his investment , now you suggest him the targeted sales volume to reach his desired income.	3
		Type your answer here Rs 2,43,750/- **ROUGH WORK** Required sales to get desired income = Fixed Cost+15% of Investment/profit Volume ratio =75,000+(15%of 1,50,000)/40% = Rs. 2,43,750	
	d.	Mr. Y estimates that even if he closed the doors of his business he would incur Rs. 25,000 expenses per year. At what sales would be better off by locking his sales up?	3
		Type your answer here Rs. 1,25,000 **ROUGH WORK** Shut down sales = Fixed cost – shut down cost P/V Ratio = (75,000 – 25,000) / 40% = Rs. 1,25,000	

END