54049

INTERMEDIATE EXAMINATION

December 2022

P–8(CAC)
Syllabus 2016

Cost Accounting

Time Allowed: 3 Hours | Full Marks: 100

The figures in the margin on the right side indicate full marks.
All Sections are compulsory. Each section contains instructions regarding the number of questions to be answered within the section.
All working notes must form part of the answer.
Wherever necessary, candidates may make appropriate assumptions and clearly state them in answer.

SECTION – A

Section A contains Question Number 1.

All parts of this question are compulsory.

Answer the following questions:

1. (a) Choose the correct answer from the given alternatives (You may write only the Roman numeral and the alphabet chosen for your answer): 1×10=10

(i) State which of the following are characteristics of job costing:

(1) Homogenous products

(2) Customer-driven production

(3) Complete production possible within a single accounting period

(A) (1) only

(B) (1) and (2) only

(C) (2) and (3) only

(D) All of them

(ii) Cost which relates to an item where the input has an explicit physical relationship with the output is known as

(A) Imputed Cost

(B) Engineered Cost

(C) Managed Cost

(D) Opportunity Cost

(iii) Method Study and Motion Study are conducted by the

(A) Personnel Department

(B) Engineering Department

(C) Payroll Department

(D) Time-keeping Department

(iv) SANUM P.I.C. producing product-ZEMO provides the following information:

Royalty paid on Sales	₹ 35,000
Design Charges paid for the product	₹ 8,000
Higher Charges for Equipment used for production	₹ 3,000

Direct Expenses will be

(A) ₹ 58,000

(B) ₹ 55,000

(C) ₹ 46,000

(D) None of these

(v) Which of the following is usually classed as Discretionary Fixed Costs?

(A) Supervisors' wages

(B) Depreciation

(C) Rent

(D) Research and Development Cost

(vi) Which of the following CASs deals with the principles and methods of determining the material cost?

(A) CAS-6 (Limited Revision 2017)

(B) CAS-10 (Limited Revision 2017)

(C) CAS-14 (Limited Revision 2017)

(D) CAS-15

(vii) BETA LTD. made a profit of ₹ 2,00,000 during the year ending March 31, 2022 as per costing records. If interest on investments and Income Tax paid were ₹ 15,000 and ₹ 90,000 respectively, what will be the profit as per financial records?

(A) ₹ 3,09,000

(B) ₹ 1,25,000

(C) ₹ 1,17,000

(D) None of the above

(viii) Cost plus contract is usually entered into those cases where

(A) Cost of certified and uncertified work

(B) Cost can be easily estimated

(C) Cost of certified work

(D) None of the above

(ix) The break-even point of GOMIN LTD. is ₹ 3,20,000. The fixed cost is ₹ 1,28,000 and the variable cost per unit is ₹ 12. What will be the P/V Ratio?

(A) 30%

(B) 40%

(C) 45%

(D) 50%

(x) In a factory of PERT LTD. where standard costing was followed, 4,000 kgs of materials at ₹15 per kg were consumed resulting in Material Cost Variance of ₹ 1,000 (Adv.). The Standard Material Cost of actual production was

(A) ₹ 61,000

(B) ₹ 60,000

(C) ₹ 59,000

(D) None of the above

(b) Match the statement in Column I with the most appropriate statement in Column II. (You may opt to write only the Roman numeral and the matched alphabet instead of copying contents into the answer book): 1×5=5

	Column I		Column II
(i)	Relevant Cost	(A)	Break-even Analysis
(ii)	Job Evaluation	(B)	Decision Package
(iii)	Pollution Control Cost	(C)	Assessment of the relative worth of jobs within a business enterprise
(iv)	Margin of Safety	(D)	Management by Exception
(v)	Zero-based Budgeting	(E)	CAS-14 (Limited Revision 2017)
		(F)	Functional Budget
		(G)	Specific Situation
		(H)	Notional Cost

(c) State whether the following are 'True' or 'False': (You may write only the Roman numeral and whether 'True' or 'False' without copying the statements into the answer book):

1×5=5

(i) Notional Costs and Imputed Costs mean the same thing.

(ii) Idle facility and idle time are the same.

(iii) JIT deals with controlling defects in time.

(iv) Multiple costing is suitable for the banking industry.

(v) CVP Analysis is a simple break-even analysis.

(d) .Fill in the blanks: (You may write only the Roman numeral and the content filling the blank):

1×5=5

(i) ___________ costs are historical costs which are incurred in the past.

(ii) ___________ Analysis is used primarily for control of spare parts.

(iii) CAS-19 deals with the principles and method of determining ___________.

(iv) A company maintains a margin of safety of 30% when P/V Ratio is 20%, and Profit is_______% of Sales.

(v) A flexible budget recognizes the behaviour of _________ and ___________ costs.

Section-B

Answer *any five* questions from questions number 2 to 8.

Each question carries 15 marks. 15×5=75

2. (a) M/s SJBA Private Limited manufactures 20,000 units of a product per month. The cost of placing an order is ₹ 1,500. The purchase price of the raw material is ₹ 100 per kg. The re-order period is 5 to 7 weeks. The consumption of raw materials varies from 200 kg to 300 kg per week, with the average consumption being 250 kg. The carrying cost of inventory is 9.75% per annum. Lead time for emergency purchases is 5 days.

You are required to calculate:

(i) Re-order quantity

(ii) Re-order level

(iii) Maximum level

(iv) Minimum level

(v) Average stock level

(vi) Danger level

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(b) PITAB LTD. manufactures a single product and absorbed the production overhead at a pre-determined rate of ₹ 10 per machine hour.

Total production, overhead expenses incurred and the actual Machine hours for the department for the month of September, 2022 were ₹ 2,00,000 and 10,000 hours, respectively. Of the amount of ₹ 2,00,000, ₹ 30,000 became payable due to an award of the Labour Court and ₹ 10,000 was in respect of expenses of the previous year booked in the current month (September). Actual production was 40,000 units of which 30,000 units were sold.

On analyzing the reasons, it was found that 60% of the under-absorbed overhead was due to defective planning and the rest was attributed to the normal cost increase.

Required:

How would you treat the under-absorbed overhead in the Cost Accounts? 7

3. (a) What disclosures are required to be made in the cost statement as per Cost Accounting Standard (CAS)-3 on 'Production and Operation Overheads'? 7

(b) ROS Ltd. showed a Net Loss of ₹ 35,400 as per their Cost Accounts for the year ended 31st March, 2022. However, the Financial Accounts disclosed a net profit of ₹ 67,800 for the same period. The following information was revealed as a result of scrutiny of the figures of cost accounts and financial accounts:

S.No.	Particulars	₹
(i)	Administrative overhead under recovered	25,500
(ii)	Factory overhead over recovered	1,35,000
(iii)	Depreciation under charged in Cost Accounts	26,000
(iv)	Dividend received	20,000
(v)	Loss due to obsolescence charged in Financial Accounts	16,800
(vi)	Income Tax provided	43,600
(vii)	Bank interest credited to Financial Accounts	13,600
(viii)	Value of Opening Stock:	
	In Cost Accounts	1,65,000
	In Financial Accounts	1,45,000
(ix)	Value of Closing Stock:	
	In Cost Accounts	1,25,500
	In Financial Accounts	1,32,000
(x)	Goodwill written-off in Financial Accounts	25,000
(xi)	Notional rent of own premises charged in Cost Accounts	60,000
(xii)	Provision for doubtful debts in Financial Accounts	15,000

Required:

Prepare a Reconciliation Statement by taking costing net loss as the base. 8

4. (a) ZOXIN LTD. manufactures two types of pens 'Super Pen' and 'Normal Pen'. The cost data for the year ended 31st March, 2022 is as follows:

	₹
Direct Materials	8,00,000
Direct Wages	4,48,000
Production Overhead	1,92,000
Total	14,40,000

It is further ascertained that:

(1) Direct materials cost in Super Pen was twice as much as direct material in Normal Pen

(2) Direct Wages for Normal Pen were 60% of those for Super Pen

(3) Production overhead per unit was at the same rate for both the types

(4) Administration overhead was 200% of direct labour for each

(5) Selling cost was ₹ 1 per Super Pen

(6) Production and sales during the year were as follow:

Production		Sales	
	No. of Units		No. of Units
Super Pen	40,000	Super Pen	36,000
Normal Pen	1,20,000		

(7) Selling price was ₹ 30 per unit for Super Pen.

Required:

Prepare a cost sheet for 'Super Pen' showing:

(i) Total work cost

(ii) Cost per unit and Total Cost

(iii) Profit per unit and Total Profit 8

(b) CISDON CHEM LTD. a multi-product manufacturing company, electrolysis common salt to obtain three products – CSD, CH and HY. During a costing period, the expenditure relating to the inputs for the common process amounted to ₹ 4,20,000. After separation expenses amounting to ₹ 1,90,000, ₹ 90,000 and ₹ 15,000 were incurred for CSD, CH, and HY respectively. The entire production of the Products was sold and ₹ 4,50,000, ₹ 3,00,000 and ₹ 72,000 were realized for the products, CSD, CH, and HY respectively. The selling expenses were estimated at 5% of the realization from the sale values. The company expected profits @ 15%, 12% and 10% of realization from the Sale of the products CSD, CH, and HY respectively.

Required:

Prepare a statement showing the apportionment of joint costs and profitability of each product. 7

5. (a) SANT TRAVELS AGENCY is a bus and operates a tourist service on daily basis. The bus starts from New City to Rest Village and returns to New City the same day. The distance between New City and Rest Village is 250 km. This trip operates for 10 days a month. The bus also plies for another 10 days between New City and Kolanpur and returns to New City the same day, the distance between these two places is 200 km. The bus makes local sight-seeing trips for 5 days in a month covering a total distance of 80 km per day.

The following data are given:

Cost of Bus ₹ 35 lakh. Depreciation 25% (Straight line method)

Driver's Salary = ₹ 16,000 p.m.

Conductor's Salary – ₹ 10,000 p.m.

Part-time clerk's salary – ₹ 6,000 p.m.

Insurance – ₹ 18,000 p.a.

Diesel consumption 5 km per litre @ ₹ 65 per litre.

Token Tax	₹ 30,000 p.a.
Permit fee	₹ 4,500 p.m.
Sundry Expenses	₹ 1,000 for the month
Lubricant oil	₹ 500 for every 200 km
Repairs and Maintenance	₹ 11,000 p.m.

The normal capacity of the bus is 50 passengers. While playing to and fro Rest Village the bus occupies 90% of the capacity and 80% when it plies between New City to Kolanpur (both ways). In New City, the bus runs at full capacity.

Passenger Tax is 15% of the net takings of the travel firms. Ignore interest and taxes.

Required:

Calculate the rate to be charged to Rest Village and Kolanpur from New City per passenger if the profit required to be earned is 25% of the takings of the Agency. 8

(b) Monteck Ltd., a construction company with a paid-up share capital of ₹ 50 lakhs undertook a contract to construct LIG house. The contract work commenced on 1st April, 2021 and the contract price was ₹ 50 lakhs. Cash received on account of the contract on 31.03.2022 was ₹ 18 lakh (90% of the work certified). Work completed but not certified was estimated at ₹ 1,00,000. As on 31.03.2022 material at the site was estimated at ₹ 30,000 and machinery at the site costing ₹ 2,00,000 was returned to stores. Plant and machinery at the site is to be depreciated at 5%. Wages outstanding on 31.03.2022 was ₹ 5,000.

Particulars	₹
Land and Buildings	15,00,000
Plant and Machinery at cost (60% at site)	25,00,000
Lorries and other vehicles	8,00,000
Furniture	50,000
Office equipment	10,000
Materials sent to the site	14,00,000
Fuel and Power	1,25,000
Site expenses	5,000
Postage and telegrams	4,000
Office expenses	8,000
Rates and taxes	15,000
Cash at Bank	1,33,000
Wages	2,50,000

Required:

(i) Prepare the Contract Account to ascertain the profit from the contract.

(ii) Calculate the value of WIP A/c to be shown in the Balance Sheet. 5+2=7

6. (a) SBZ Ltd., a manufacturing company using a standard costing system has the following production budget for November, 2022:

Product A= 20,000 units and Product B= 40,000 units

A standard hour represents 10 units of A and 8 units of B. The standard wage rate per hour is ₹ 0.50.

During the month 7500 hours were paid (@₹ 0.60 per hour) which included 350 unproductive hours due to unbudgeted holidays as also loss of production of 250 units of Product A due to machine breakdown.

Actual production for the month was 24,000 units of A and 38,000 units of B.

Calculate:

(i) Direct labour rate variance.

(ii) Direct labour idle time variance.

(iii) Direct labour efficient variance.

(iv) Direct labour total variance. 2×4= 8

(b) ASHREEN, a manufacturing company estimated its sales for the year 2022-23 quarter-wise as under:

Quarter	Sales units
I	30,000
II	37,500
III	41,250
IV	45,000

The opening of finished goods is 10,000 units and the company expects to maintain the closing stock of finished goods at 16,250 units at the end of the year. The production pattern in each quarter is based on 80% of the sales of the current quarter and 20% of the sales of the next quarter. The opening stock of raw material at the beginning of the year is 10,000 kgs and the closing stock at the end of the year is required to be maintained at 5,000 kgs. Each unit of finished output requires 2 kgs of Raw materials.

You are required to prepare the following for the year 2022-23 quarter-wise:

(i) Production Budget (in units)

(ii) Raw material consumption budget (in quantity)

(iii) Raw material purchase budget (in quantity) for the year 2022-23 7

7. (a) SUBN Ltd. a single-product company sells its products at ₹ 60 per unit. In 2021, the company operated at a margin of 40%. The Fixed Costs amounted to ₹ 3,60,000 and the variable cost ratio to sales was 80%.

In 2022, it is estimated that the variable cost will go up by 10% and the fixed costs will increase by 5%.

Required:

Find the selling price required to be fixed in 2022 to earn the same P/V ratio as in 2021. Assuming the same selling price of ₹ 60 per unit in 2022, find the number of units required to be produced and sold to earn the same profit as in 2021. 8

(b) PANT Ltd., producing a single product sells it at ₹ 50 per unit variable cost is ₹ 35, and the fixed cost amount to ₹ 12 lakh per annum.

With this data, you are required to calculate the following treating each independent of the other.

(i) P/V ratio and break-even sales

(ii) New Break-even sales if variable cost increases by ₹ 3 per unit, without an increase in selling price

(iii) Increase in sales required if profits are to be increased by ₹ 2.4 lakhs

(iv) Percentage increase/decrease in sales volume units to off-set

(I) An increase of ₹ 3 in the variable cost per unit

(II) A 10% increase in selling price without affecting existing profits quantum 7

8. Write short notes on *any three* out of the following questions: 5×3=15

(a) Enumerate what are the objectives of cost accounting.

(b) What is just in time (JIT)? Discuss what are the advantage of JIT (any three).

(c) Zero-based Budgeting (ZBB).

(d) Enumerate what are the advantages of cost control.

SUGGESTED ANSWERS TO QUESTIONS

SECTION – A

1X10 = 10 Marks

1. (a).

(i)	**(**C)
(ii)	(B)
(iii)	(B)
(iv)	(C)/ (D)
(v)	(D)
(vi)	(A)
(vii)	(B)
(viii)	(A)/ (D)
(ix)	(B)
(x)	(C)

1. (b). **1X5 = 5 Marks**

(i)	(G)
(ii)	(C)
(iii)	(E)
(iv)	(A)
(v)	(B)

1. (c). **1X5 = 5 Marks**

(i)	True
(ii)	False
(iii)	False
(iv)	False
(v)	True

1. (d). **1X5 = 5 Marks**

(i)	Sunk
(ii)	VED (Vital, Essential, and Desirable)
(iii)	Joint Cost
(iv)	6%
(v)	Variable, Fixed

SECTION – B

(Any FIVE from questions number 2 to 8)

15X5=75 Marks

2. (a). **8 Marks**

(i) Re-Order Quantity (ROQ) = 2000 Kg.

(ii) Re-order Level (ROL) = 2100 Kg.

(iii) Maximum Level = 3100 Kg

(iv) Minimum Level = 600 Kg.

(v) Average Stock Level = 1850 Kg OR 1600 Kg.

(vi) Danger Level = 1000 Kgs.

2. (b). **7 Marks**

(Amount in ₹)

Under-absorbed Overheads	**60000**
Treatment of under-absorbed overhead in the cost Accounts:	
(i) 60% of under-absorbed overhead is due to defective planning. This being abnormal should be debited to the Costing Profit and Loss account (60000 × 0.60)	**36000**
(ii) Balance of 40% of under-absorbed overhead should be distributed over, closing stock of finished goods and cost of sales by supplementary rate (40% of 60000)	**24000**

3 (a): **7 Marks**

The cost statements shall disclose the following:

(i) The basis of assignment of production or operation overheads to the cost objects.

(ii) Production or operation overheads incurred in foreign exchange.

(iii) Production or operation overheads relating to resources received from or supplied to related parties (Related party as per the applicable legal requirements relating to the cost statement as on the date of the statement).

(iv) Any subsidy, grant, incentive, or any amount of similar nature received or receivable reduced from production or operation overheads.

(v) Credits or recoveries relating to the production or operation overheads.

(vi) Any abnormal cost not forming part of the production or operation overheads

(vii) Any unabsorbed production or operation overheads.

3. (b). **8 Marks**

Particulars	**Amount (₹)**
Net loss as per Cost Accounts	**(35400)**
Total Additions	**255100**
Total Deduction	**(151900)**
Net Profit as per Financial A/cs	**67800**

4. (a). **8 Marks**

(i) Total work cost = ₹ 528000

(ii) Cost per unit and Total Cost = ₹ 23.09 and ₹ 831200

(iii) Profit per unit and Total profit = ₹ 6.91 and ₹ 248800

4. (b). **7 Marks**

Statement showing the Apportionment of Joint Costs to the three Joint products and the Profitability of each product.

PARTICULARS	Products			
	CSD	**CH**	**HY**	**Total**
	(₹)	(₹)	(₹)	(₹)
Realization from sale	450000	300000	72000	822000
Less: Expected profit (15%, 12%, and 10%) on realization	67500	36000	7200	110700
Less: Selling exp. (5% on realization)	22500	15000	3600	41100
The estimated cost of production	360000	249000	61200	670200
Less: After separation costs	190000	90000	15000	295000
Estimated joint cost and their percentages	170000 45.31%	159000 42.38%	46200 12.31%	375200 100%
Actual joint cost apportioned in the ratio of estimated joint costs (45.31: 42.38: 12.31)	190302	177996	51702	420000
Add: After separation cost	190000	90000	15000	295000
The actual cost of production	380302	267996	66702	715000
Add: Selling expenses	22500	15000	3600	41100
Profit realized (Balancing figure)	47198	17004	1698	65900
Realization from sale	450000	300000	72000	822000

5. (a). **8 Marks**

Charges Per Passenger:			
To Rest Village from New City	=	250 x 1.026	**= ₹ 257**
To Kolanpur from New City	=	200 x 1.026	**= ₹ 205**

5. (b). **5+2 = 7 Marks**

Contract Account for the period ending 31.03.2022

(Amount in ₹)

To Material sent			By Work Certified	2000000
To Site	1400000		1800000 x (100/90)	
Less: Material at the site	0000	1370000	By Work not certified	100000
” Wages	250000			
Add: Outstanding	5000	255000		
” Site Expenses		5000		
” Postage and Telegram		4000		
” Power and Fuel		125000		
” Office Expenses		8000		

” Rates and Taxes	15000		
” Depreciation (2500000 x 0.60 x 0.05)	75000		
” Notional Profit (Balance C/d)	243000		
	2100000		2100000
” P & L A/c. 1/3 x 90/100 x 243000	72900		
” WIP – A/c. (Reserve of unrealized profit	170100		
	243000		243000
Working – in – Progress A/c.			
Work Certified		2000000	
Less: Cash Received		1800000	
		200000	
Less: Reserve for unrealized profit		170100	
		29900	
Add: Work done but no certified		100000	
		129900	

6. (a). **2X4 = 8 Marks**

i. Direct Labour Rate Variance = ₹ 750 (Adv.)
ii. Direct Labour Idle Time Variance = ₹ 187.50 (Adv.)
iii. Direct Labour efficiency variance = ₹ 12.50 (Fav.)
iv. Direct Labour total variance = ₹ 925 (Adv.)

6. (b). **7 Marks**

Year 2022 – 23 Quarter					
	I Units	**II Units**	**III Units**	**IV Units**	**Total Units**
(i) Production Budget (in units)	31500	38250	42000	48250	160000
(ii) Raw Material consumption budget (in quantity)	63000	76500	84000	96500	320000
(iii) Raw Material purchase budget (in quantity) for the year 2022 – 23. = 315000 Kg					

7. (a). **8 Marks**

Selling price required to be fixed in 2022 = ₹ 66
Number of Units to be produced and sold in 2022 = 85834 units

7. (b). **7 Marks**

(i) P/V Ratio and Break Even Sales = 30% and ₹ 40 Lakhs
(ii) New Break-even sales = ₹ 50 Lakhs
(iii) Increase in Sales = ₹ 8 Lakhs
(iv) I- Increase in Sales Volume = 25%
II- Decrease in Sales Volume = 25%

8. **Short Notes: (ANY THREE)**

5X3=15 Marks

(a) Objective of Cost Accounting:

The following are the main objectives of Cost Accounting:

(i) To ascertain the Costs under different situations using different techniques and systems of costing

(ii) To determine the selling prices under different circumstances

(iii) To determine and control efficiency by setting standards for Materials, Labour, and Overheads

(iv) To determine the value of closing inventory for preparing financial statements of the concern

(v) To provide a basis for operating policies which may be the determination of Cost Volume relationship, whether to close or operate at a loss, whether to manufacture or buy from the market, whether to continue the existing method of production or to replace it by a more improved method of production .... etc.

(b) Just-in-Time (JIT):

Just in time (JIT) is a production strategy that strives to improve the business return on investment by reducing in-process inventory and associated carrying costs. Inventory is seen as incurring costs, or waste, instead of adding and storing value contrary to traditional accounting. In short, the Just-in-Time inventory system focuses on "the right material, at the right time, at the right place, and in the exact amount" without the safety net of inventory.

The advantages of Just - in - Time system are as follows: (Any Three)

(i) Increased emphasis on supplier relationships. A company without inventory does not want a supply system problem that creates a part shortage. This makes supplier relationships extremely important.

(ii) Supplies come in at regular intervals throughout the production day.

(iii) Reduces the working capital requirements, as very little inventory is maintained.

(iv) Minimizes storage space.

(v) Reduces the chance of inventory obsolescence or damage.

(c) ZERO-BASED BUDGETING (ZBB):

Zero-Based Budgeting (ZBB) is a method of budgeting which requires each cost element to be specifically justified, though the activities to which the budget relates are being undertaken for the first time, without approval, the budget allowance is 'zero'. It is an activity-based budgeting system in which a budget is prepared for each activity and the justification in the form of cost-benefits for the activity is necessary to be given.

ZBB involves various stages:

(a) identification of decision packages and their description in detail,

(b) evaluation of decision packages,

(c) selection of decision packages according to priority, and

(d) allocation of resources after approval of the budget committee and the top management.

(d) Advantages of Cost Control

The advantages of cost control are mainly as follows

(i) Achieving the expected return on capital employed by maximizing or optimizing profit

(ii) Increase in productivity of the available resources

(iii) Reasonable price for the customers

(iv) Continued employment and job opportunities for the workers

(v) Economic use of limited resources of production

(vi) Increased credit worthiness

(vii) Prosperity and economic stability of the industry.