Skillshort

Self-Study Preparation Pack

CMA INTERMEDIATE

Paper 8: Cost Accounting (CA)

Mock Test 2 – Full Paper with Model Answers

ICMAI Syllabus 2022 pattern: 100 marks · 3 hours · Section A – 15 MCQs × 2 (compulsory) · Section B – any 5 of Q2–Q8 (14 marks each) · Original Skillshort questions, figures verified in Python

Time: 3 hours | Max marks: 100 | No negative marking | Model answers follow the paper

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This subject pack has 6 parts

1 Chapter-wise notes

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Prepared by Skillshort for self-study. Original explanations and questions; not an official ICAI/ICMAI/ICSI publication. Items marked VERIFY should be checked against the latest official material.

Section A – Multiple Choice Questions (30 marks)

Q1. Choose the correct option (2 × 15 = 30).

1. CAS 1 deals with
(a) Classification of cost
(b) Cost of production for captive consumption
(c) Overheads
(d) Material cost

2. Abnormal administrative overheads are excluded from cost under
(a) CAS 3
(b) CAS 11
(c) CAS 15
(d) CAS 7

3. The most suitable cost unit for a hospital is
(a) Bed
(b) Patient-day
(c) Doctor-hour
(d) Ward

4. Under ABC analysis of inventory, 'A' items are
(a) Many items of low value
(b) Few items forming the bulk of the value
(c) Items with zero usage
(d) Items bought locally

5. Maximum usage 400 units per week and maximum lead time 6 weeks. The re-order level is
(a) 1,800 units
(b) 2,400 units
(c) 2,000 units
(d) 3,000 units

6. Fixed cost ₹3,00,000 and P/V ratio 30%. Break-even sales are
(a) ₹9,00,000
(b) ₹10,00,000
(c) ₹90,000
(d) ₹12,00,000

7. Actual quantity 1,000 kg bought at ₹22 per kg; standard price ₹20 per kg. The material price variance is
(a) ₹2,000 (F)
(A)
(A)
(b) ₹2,000
(c) ₹22,000
(d) ₹200 (A)

8. Standard time 10 hours, time taken 8 hours, rate ₹50 per hour. Earnings under the Rowan plan are
(a) ₹450
(b) ₹480
(c) ₹500
(d) ₹400

9. Joint cost ₹60,000 is apportioned on physical units. Output: A 2,000 units, B 1,000 units. Joint cost of A is
(a) ₹30,000
(b) ₹40,000
(c) ₹20,000
(d) ₹45,000

10. Which of the following is a technique and not a method of costing?
(a) Job costing
(b) Process costing
(c) Marginal costing
(d) Operating costing

11. Starting from the profit as per cost accounts, factory overheads over-absorbed in cost accounts are
(a) Added
(b) Deducted
(c) Ignored
(d) Added only if material

12. Opening WIP 1,000 units (40% converted); units introduced 5,000; completed 5,200; closing WIP 800 units (50% converted). Equivalent units of conversion under FIFO are

(a) 5,200 (b) 5,600
(c) 5,000 (d) 4,600

13. Which item is excluded from a cash budget?

(a) Advance tax paid (b) Depreciation
(c) Dividend paid (d) Purchase of machinery

14. Machine overheads ₹3,60,000 for 1,800 productive hours. The machine hour rate is

(a) ₹180 (b) ₹200
(c) ₹220 (d) ₹250

15. The main aim of Just-in-Time (JIT) inventory is

(a) Bulk buying
(b) Near-zero inventory with materials arriving as needed
(c) High safety stock
(d) Annual ordering

Section A – Answer key with reasons

Q	Ans	Explanation / working
1	(a)	**CAS 1** – Classification of Cost. CAS 2 is capacity determination, CAS 4 cost of production for captive consumption, CAS 6 material cost.
2	(b)	**CAS 11** – Administrative Overheads; abnormal and non-recurring administrative costs are not part of cost.
3	(b)	Hospitals use the **patient-day** (or bed-day) as the composite cost unit.
4	(b)	'A' items are roughly **10% of items but about 70% of value** – controlled most tightly.
5	(b)	ROL = maximum usage × maximum lead time = 400 × 6 = **2,400 units**.
6	(b)	BEP = 3,00,000 ÷ 30% = **₹10,00,000**.
7	(b)	AQ × (SP − AP) = 1,000 × (20 − 22) = **₹2,000 (A)**.
8	(b)	8 × 50 + (2 ÷ 10) × 8 × 50 = 400 + 80 = **₹480**.
9	(b)	60,000 × 2,000 ÷ 3,000 = **₹40,000**.
10	(c)	**Marginal costing** is a technique, used with any method. Job, process and operating costing are methods.
11	(a)	Over-absorption means cost accounts charged more than actual, so costing profit is lower; **add** it to reach financial profit.
12	(a)	1,000 × 60% + (5,200 − 1,000) + 800 × 50% = 600 + 4,200 + 400 = **5,200**.
13	(b)	**Depreciation** is a non-cash expense.
14	(b)	3,60,000 ÷ 1,800 = **₹200 per hour**.
15	(b)	JIT aims at **minimum (near-zero) inventory**; materials arrive just when production needs them.

Section B – Descriptive Questions (70 marks)

Answer any five of Questions 2 to 8 (14 marks each). Working notes form part of the answer.

Q2 (a) (8 marks). Vardhan Furniture makes 4,000 chairs a month at 80% capacity. Costs: materials ₹60, labour ₹40, variable overheads ₹20 per chair; semi-variable overheads ₹1,20,000 per month at 80% (60% fixed); fixed overheads ₹2,00,000. Find the selling price per chair to earn **20% on sales** (i) at 80% capacity and (ii) at 100% capacity, where material prices fall by 5% because of bulk buying.

(b) (6 marks). For the quarter ended 30 September 2026: workers at the start 1,800 and at the end 2,200; separations 80; replacements 60; new workers engaged for expansion 420. Calculate labour turnover by the separation, replacement, new-recruitment and flux methods, and their annual equivalents.

Q3 (a) (8 marks). Departments X (machine-intensive) and Y (labour-intensive): budgeted overheads X ₹5,00,000 (10,000 machine hours; 2,000 labour hours), Y ₹3,20,000 (8,000 labour hours). Job J-9 uses Dept X 20 machine hours (4 labour hours) and Dept Y 30 labour hours. (i) Compute overheads on J-9 using departmental rates and a blanket labour-hour rate. (ii) Actual: X ₹5,30,000 for 10,400 machine hours; Y ₹3,10,000 for 8,200 labour hours. Find the under/over-absorption and state its treatment.

(b) (6 marks). Pass journal entries in cost books (non-integrated system): materials purchased on credit ₹2,00,000; materials issued to production ₹1,50,000; wages paid ₹1,00,000 (direct ₹80,000, indirect ₹20,000); factory overheads incurred ₹60,000; factory overheads absorbed ₹75,000; finished goods completed ₹2,90,000; transfer of under/over-absorbed factory overheads.

Q4 (a) (7 marks). Gati Logistics runs a 10-tonne truck on a 200-km route. It goes with full load and returns with 50% load, making 20 round trips a month. Monthly costs: driver ₹30,000; cleaner ₹15,000; depreciation ₹25,000; insurance ₹5,000; maintenance ₹21,000; diesel ₹90 per litre at 5 km per litre. Calculate the cost per tonne-km and freight per tonne-km to earn 20% on freight.

(b) (7 marks). Contract No. 64 of Nirmaan Builders (contract price ₹50,00,000) is nearing completion. Up to 31 March 2026: cost incurred ₹42,00,000; estimated further cost to complete ₹3,00,000; work certified ₹46,00,000; cash received ₹39,10,000; no uncertified work. Calculate the notional profit, the estimated total profit and the profit to be credited to the Profit and Loss Account for the year.

Q5 (a) (8 marks). Process Y (FIFO): opening WIP 2,000 units (materials 100%, conversion 40%) ₹72,000; units introduced 18,000; completed and transferred 17,000; closing WIP 3,000 units (materials 100%, conversion 60%). Costs: materials ₹3,60,000; conversion ₹5,04,000. There are no losses. Prepare the statement of equivalent production, cost per unit and evaluation.

(b) (6 marks). The standard gang for a job is **6 skilled workers at ₹60 per hour and 4 semi-skilled workers at ₹45 per hour**; in a 40-hour week it produces 500 units. In one week the actual gang was **5 skilled workers at ₹62 per hour and 5 semi-skilled workers at ₹45 per hour**. All were paid for 40 hours, but **1 hour per worker was lost** due to a machine breakdown (abnormal). Output was 480 units. Calculate the labour cost, rate, idle time, efficiency, mix (gang) and sub-efficiency variances.

Q6 (a) (6 marks). Normal capacity 10,000 units; production 10,000 units; sales 8,000 units at ₹100. Variable cost ₹60 per unit; fixed production overheads ₹2,00,000. No opening stock. Calculate profit under absorption and marginal costing and reconcile the difference.

(b) (8 marks). Kiran Ltd. sells a product at ₹100 per unit; variable cost ₹60 per unit; fixed cost ₹4,00,000 a year. Current sales 15,000 units. Calculate (i) P/V ratio and break-even point in units and value, (ii) margin of safety and profit, (iii) sales in units to earn a profit of ₹3,00,000, and (iv) the new break-even point and the sales needed to keep the present profit if the price is cut by 10%.

Q7 (a) (8 marks). Prepare a cash budget of Vasudha Traders for April–June 2026. Sales: March ₹2,40,000; April ₹2,60,000; May ₹2,80,000; June ₹3,00,000. **25% of sales are for cash**; the balance is collected in the following month. Purchases equal **50% of sales** and are paid in the following month. Wages ₹30,000 a month (paid half in the month and half in the next month; the same amount every month). Rent ₹10,000 a month. Advance tax ₹20,000 is payable in June. Cash balance on 1 April 2026: ₹40,000.

(b) (6 marks). At 60% capacity (6,000 units) overheads are: variable ₹1,80,000; semi-variable ₹1,00,000 (40% fixed); fixed ₹80,000. Prepare a flexible overhead budget at 60%, 80% and 100% with the overhead rate per unit.

Q8 (a) (5 marks). Distinguish between integrated and non-integrated accounting systems.

(b) (5 marks). State the essentials of a good wage incentive scheme.

(c) (4 marks). Explain the principles of measurement of direct expenses under CAS 10.

Model Answers – Section B

SOLUTION Q2(a) Price per chair

Semi-variable: fixed 60% × 1,20,000 = 72,000; variable 48,000/4,000 = ₹12 per chair.

Particulars	80% (4,000) ₹	100% (5,000) ₹
Materials (₹60; ₹57 at 100%)	2,40,000	2,85,000
Labour (₹40)	1,60,000	2,00,000
Variable overheads (₹20)	80,000	1,00,000
Semi-variable – fixed	72,000	72,000
Semi-variable – variable (₹12)	48,000	60,000
Fixed overheads	2,00,000	2,00,000
Total cost	**8,00,000**	**9,17,000**
Cost per chair	200.00	183.40
Profit (20% on sales = 25% on cost)	50.00	45.85
Selling price per chair	**250.00**	**229.25**

SOLUTION Q2(b) Labour turnover

Average workers = (1,800 + 2,200)/2 = 2,000. Check: 1,800 − 80 + 60 + 420 = 2,200 ✓

Method	Quarter	Annual equivalent (× 4)
Separation = 80/2,000	4%	16%
Replacement = 60/2,000	3%	12%
New recruitment = 420/2,000	21%	84%
Flux = (80 + 60)/2,000	7%	28%
Flux incl. new recruits = (80 + 60 + 420)/2,000	28%	112%

Annual equivalent = quarterly rate × 4 (four quarters in a year).

SOLUTION Q3(a) Departmental vs blanket rates

Departmental rates: X = 5,00,000/10,000 = ₹50 per machine hour; Y = 3,20,000/8,000 = ₹40 per labour hour.

Blanket rate = 8,20,000/(2,000 + 8,000) labour hours = ₹82 per labour hour.

Job J-9	Departmental	Blanket
Dept X	20 MH × 50 = 1,000	–
Dept Y	30 LH × 40 = 1,200	–
Total labour hours 34 × 82	–	2,788
Overheads charged	**2,200**	**2,788**

The blanket rate over-charges J-9 by ₹588 because it ignores that X is machine-intensive.

(ii) X: absorbed 10,400 × 50 = 5,20,000 vs actual 5,30,000 → **under-absorbed ₹10,000**. Y: absorbed 8,200 × 40 = 3,28,000 vs actual 3,10,000 → **over-absorbed ₹18,000**.

Treatment: if small or due to abnormal factors – transfer to Costing P&L A/c. If large and due to wrong estimates – adjust through a **supplementary rate** across cost of sales, finished goods and WIP. Carry forward only within a year in seasonal businesses.

SOLUTION Q3(b) Journal entries – non-integrated system

#	Entry	Dr ₹	Cr ₹
1	Stores Ledger Control A/c Dr / To Cost Ledger Control A/c	2,00,000	2,00,000
2	WIP Control A/c Dr / To Stores Ledger Control A/c	1,50,000	1,50,000
3a	Wages Control A/c Dr / To Cost Ledger Control A/c	1,00,000	1,00,000
3b	WIP Control A/c Dr 80,000; Factory OH Control A/c Dr 20,000 / To Wages Control A/c	1,00,000	1,00,000
4	Factory OH Control A/c Dr / To Cost Ledger Control A/c	60,000	60,000
5	WIP Control A/c Dr / To Factory OH Control A/c	75,000	75,000
6	Finished Goods Control A/c Dr / To WIP Control A/c	2,90,000	2,90,000
7	Costing P&L A/c Dr / To Factory OH Control A/c (under-absorbed: 80,000 – 75,000)	5,000	5,000

SOLUTION Q4(a) Truck cost per tonne-km

Km per month = 20 × 400 = 8,000; diesel 8,000/5 = 1,600 litres × 90 = ₹1,44,000.

Tonne-km per round trip = 200 × 10 + 200 × 5 = 3,000; per month = **60,000 tonne-km**.

Cost	₹
Driver and cleaner	45,000
Depreciation and insurance	30,000
Maintenance	21,000
Diesel	1,44,000
Total	**2,40,000**

Cost per tonne-km = 2,40,000/60,000 = **₹4.00**. Freight to earn 20% on freight = 4/0.80 = **₹5.00 per tonne-km**.

SOLUTION Q4(b) Profit on a nearly complete contract

Notional profit = work certified + uncertified − cost to date = 46,00,000 + 0 − 42,00,000 = **₹4,00,000**.

Estimated total profit = contract price − (cost to date + further cost) = 50,00,000 − (42,00,000 + 3,00,000) = **₹5,00,000**.

Stage of completion = 46,00,000 ÷ 50,00,000 = **92%** → more than 90% complete, so profit is based on the estimated total profit.

Profit to P&L = estimated profit × (work certified ÷ contract price) × (cash received ÷ work certified) = 5,00,000 × 46/50 × 39,10,000/46,00,000 = 5,00,000 × 39,10,000 ÷ 50,00,000 = **₹3,91,000**.

Reserve carried forward = notional profit − profit credited = 4,00,000 − 3,91,000 = **₹9,000**.

SOLUTION Q5(a) FIFO process costing

Started and finished = 17,000 − 2,000 = 15,000 units.

Equivalent units	Materials	Conversion
Opening WIP completed (2,000; 0% / 60%)	–	1,200
Started and finished	15,000	15,000
Closing WIP (3,000; 100% / 60%)	3,000	1,800
Total	**18,000**	**18,000**
Cost (current period)	3,60,000	5,04,000
Cost per EU	**₹20**	**₹28**

Evaluation	₹
Opening WIP – cost b/f	72,000
Opening WIP – completion (1,200 × 28)	33,600
Started and finished (15,000 × 48)	7,20,000
Transferred out (17,000 units)	**8,25,600**
Closing WIP (3,000 × 20 + 1,800 × 28)	**1,10,400**

Check: 72,000 + 3,60,000 + 5,04,000 = 9,36,000 = 8,25,600 + 1,10,400 ✓

SOLUTION Q5(b) Labour (gang) variances

Standard hours for actual output (480 units): skilled 6 × 40 × 480/500 = **230.4**; semi-skilled 4 × 40 × 480/500 = **153.6**. Standard cost = 230.4 × 60 + 153.6 × 45 = **₹20,736**.

Actual: paid 200 h each grade; worked 195 h each. Actual cost = 200 × 62 + 200 × 45 = **₹21,400**.

Revised standard hours (390 worked hours in standard ratio 6 : 4): skilled 234; semi-skilled 156.

Variance	Skilled ₹	Semi-skilled ₹	Total ₹
Rate = AH paid × (SR − AR)	400 (A)	–	**400 (A)**
Idle time = idle h × SR	300 (A)	225 (A)	**525 (A)**
Mix = (RSH − AH worked) × SR	2,340 (F)	1,755 (A)	**585 (F)**
Sub-efficiency = (SH − RSH) × SR	216 (A)	108 (A)	**324 (A)**
Efficiency = (SH − AH worked) × SR	2,124 (F)	1,863 (A)	**261 (F)**
Labour cost = SC − AC			**664 (A)**

Check: rate 400 A + idle 525 A + efficiency 261 F = 664 A ✓; mix 585 F + sub-efficiency 324 A = efficiency 261 F ✓.

SOLUTION Q6(a) Absorption vs marginal costing

Absorption cost per unit = 60 + 2,00,000/10,000 = ₹80. **Absorption profit** = 8,000 × (100 − 80) = **₹1,60,000** (no under-absorption as production = normal capacity).

Marginal profit = 8,000 × 40 − 2,00,000 = **₹1,20,000**.

Difference ₹40,000 = closing stock 2,000 units × fixed overhead ₹20 carried forward in stock under absorption costing.

SOLUTION Q6(b) CVP analysis – Kiran Ltd.

(i) Contribution = 100 − 60 = ₹40; **P/V ratio = 40%**. BEP = 4,00,000 ÷ 40 = **10,000 units = ₹10,00,000**.

(ii) **Margin of safety** = 15,000 − 10,000 = **5,000 units (₹5,00,000; 33.33% of sales)**. Profit = 15,000 × 40 − 4,00,000 = **₹2,00,000** (check: MOS × P/V = 5,00,000 × 40%).

(iii) Units for profit ₹3,00,000 = (4,00,000 + 3,00,000) ÷ 40 = **17,500 units**.

(iv) New price ₹90; contribution ₹30; P/V 33.33%. New BEP = 4,00,000 ÷ 30 = **13,334 units** (13,333.33) = ₹12,00,000. Sales to keep profit ₹2,00,000 = 6,00,000 ÷ 30 = **20,000 units (₹18,00,000)**.

SOLUTION Q7(a) Cash budget – Vasudha Traders (April–June 2026)

Particulars	April ₹	May ₹	June ₹
Opening balance	40,000	1,25,000	2,20,000
Cash sales (25%)	65,000	70,000	75,000
Collection from debtors (75% of last month)	1,80,000	1,95,000	2,10,000
Total receipts + opening	**2,85,000**	**3,90,000**	**5,05,000**
Creditors (50% of last month's sales)	1,20,000	1,30,000	1,40,000
Wages (15,000 + 15,000)	30,000	30,000	30,000
Rent	10,000	10,000	10,000
Advance tax	–	–	20,000
Total payments	**1,60,000**	**1,70,000**	**2,00,000**
Closing balance	**1,25,000**	**2,20,000**	**3,05,000**

SOLUTION Q7(b) Flexible overhead budget

Variable ₹30 per unit; semi-variable: fixed 40,000 + variable 60,000/6,000 = ₹10 per unit.

Particulars	60% (6,000)	80% (8,000)	100% (10,000)
Variable overheads (₹30)	1,80,000	2,40,000	3,00,000
Semi-variable – fixed	40,000	40,000	40,000
Semi-variable – variable (₹10)	60,000	80,000	1,00,000
Fixed overheads	80,000	80,000	80,000
Total	**3,60,000**	**4,40,000**	**5,20,000**
Rate per unit	**₹60**	**₹55**	**₹52**

SOLUTION Q8(a) Integrated vs non-integrated accounts

Basis	Integrated	Non-integrated
Ledgers	One set of books for cost and financial records	Separate cost ledgers and financial ledgers
Reconciliation	Not needed	Needed between cost and financial profit
Personal and real accounts	Maintained	Replaced by Cost Ledger Control A/c
Profit	Single profit figure	Two profits that differ
Cost and effort	Economical, avoids duplication	Duplication of entries

SOLUTION Q8(b) Essentials of a good incentive scheme

(1) Simple to understand and calculate; (2) fair to both employer and employees, with standards set by time and motion study; (3) guaranteed minimum wage; (4) incentive paid promptly and linked directly to effort; (5) no ceiling that kills motivation, but quality safeguards; (6) agreed with workers or unions; (7) not frequently changed; (8) low cost of operation; (9) supports quality and safety.

SOLUTION Q8(c) CAS 10 – Measurement of direct expenses

- Direct expenses are measured at **invoice or agreed price** including duties and taxes that are not refundable, and other expenditure directly attributable, **net of trade discounts, rebates and credits**.
- Where a direct expense is paid in **lump sum or for a period**, it is assigned to the cost objects on the basis of benefit received.
- **Royalties and technical know-how fees** paid on the basis of production are direct expenses; lump-sum royalties are amortised over the expected production.
- Direct expenses incurred in **foreign exchange** are converted at the rate on the date of the transaction.
- Any **subsidy, grant or incentive** received for a direct expense reduces the cost; penalties, damages and abnormal items are excluded.
- Direct expenses paid to related parties are measured at the price as per the applicable law.