

# INTERMEDIATE EXAMINATION

June 2019

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.*

*No present value factor table or other statistical table will be provided in addition to this question paper.*

### Section - A

Section A contains Question Number 1. All parts of this question are compulsory.

1. Answer the following questions:

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

(i) The main purpose of Cost Accounting is

- (A) to maximise profit.
- (B) to help in inventory valuation.
- (C) to help in the fixation of selling price.
- (D) to provide information to management for decision making.

(ii) Which of the following is considered to be a normal loss of material?

- (A) Loss due to accident
- (B) Pilferage
- (C) Loss due to breaking the bulk
- (D) Loss due to careless handling of material

- (iii) In Reconciliation Statement expenses shown only in financial accounts are
- (A) added to financial profit.
  - (B) added to costing profit.
  - (C) ignored.
  - (D) deducted from financial profit.
- (iv) Which of the following is a service department?
- (A) Refining department
  - (B) Machining department
  - (C) Receiving department
  - (D) Finishing department
- (v) Which of the following items is not included in preparation of cost sheet?
- (A) Purchase returns
  - (B) Carriage inwards
  - (C) Sales commission
  - (D) Interest paid
- (vi) In job costing to record the issue of direct materials to a job which of the following document is used?
- (A) Purchase order
  - (B) Goods receipt note
  - (C) Material requisition
  - (D) Purchase requisition

- (vii) In a process 4000 units are introduced during a period. 5% of input is normal loss. Closing work-in-progress 60% complete is 500 units. 3300 completed units are transferred to next process. Equivalent production for the period is
- (A) 3550 units
  - (B) 3600 units
  - (C) 3800 units
  - (D) 3950 units
- (viii) Product A generates a contribution to sales ratio of 40%. Fixed cost directly attributable to A amount ₹ 60,000. The sales revenue required to achieve a profit of ₹ 15,000 is
- (A) ₹ 2,00,000
  - (B) ₹ 1,85,000
  - (C) ₹ 1,87,500
  - (D) ₹ 2,10,000
- (ix) 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?
- (A) 12000 hours
  - (B) 12500 hours
  - (C) 13000 hours
  - (D) 13500 hours
- (x) Cash Budget of ABC Ltd. forewarns of a short-term surplus. Which of the following would be appropriate action to be taken in such a situation?
- (A) Purchase new fixed assets
  - (B) Repay long-term loans
  - (C) Write off preliminary expenses
  - (D) Pay creditors early to obtain a cash discount

(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 books):

1×5=5

|       | Column I                                     |     | Column II         |
|-------|--|-----|-------------------|
| (i)   | Pharma Industry                              | (A) | Opportunity Cost  |
| (ii)  | Management by exception                      | (B) | Direct Allocation |
| (iii) | Assessment of employee with respect to a job | (C) | Joint Cost        |
| (iv)  | Royalties                                    | (D) | Batch Costing     |
| (v)   | CAS-19                                       | (E) | Merit Rating      |
|       |  | (F) | Variance Analysis |
|       |  | (G) | Job Evaluation    |
|       |  | (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 books):

1×5=5

- (i) Bin card is maintained by the costing department.
  - (ii) CAS-8 deal with the principles and methods of determining the direct expenses.
  - (iii) FIFO method is followed for evaluation of equivalent production when prices are fluctuating.
  - (iv) Profit Volume ratio remains constant at all levels of activity.
  - (v) The principal factor is the starting point for the preparation of various budgets.
- (d) Fill in the blanks: (You may write only the Roman numeral and the content filling the blanks):
- 1×5=5
- (i) Differential cost is the change in the cost due to change in \_\_\_\_\_ from one level to another.
  - (ii) CAS \_\_\_\_\_ stands for cost of service cost centre.

- (iii) In contract costing, the cost unit is \_\_\_\_\_.
- (iv) Marginal cost is the \_\_\_\_\_ of sales over contribution.
- (v) When actual cost is less than the standard cost, it is known as \_\_\_\_\_ variance.

### Section - B

Answer any five questions from question numbers 2 to 8.

Each question carries 15 marks.

15×5=75

2. (a) ZINTES LTD. a manufacturing company has its factories at two locations. Rowan plan is in use at location A and Halsey plan at location B. Standard time and basic rate of wages are same for a job which is similar and is carried out on similar machinery. Time allowed is 60 hours.
- Job at location A is completed in 36 hours while at B, it has taken 48 hours. Conversion costs at respective places are ₹ 1224 and ₹ 1500. Overheads amount to ₹ 20 per hour.

Required:

- (i) Find out the normal wage rate, and  
(ii) Compare conversion costs.

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- (b) ALPHA LTD. has three Production Departments and two Service Departments. The overhead distribution sheet of the company showed the following totals:

| Production Department: | Amount (₹) |
|------------------------|------------|
| P                      | 75,500     |
| Q                      | 72,000     |
| R                      | 96,500     |
| Service Department:    |            |
| X                      | 46,250     |
| Y                      | 15,750     |

Other information is as follows:

- (a) Working hours of production departments are P-6226 hours, Q-4028 hours and R-4066 hours.
- (b) Services rendered by service departments are as under:

|              | P   | Q   | R   | X   | Y   |
|--------------|-----|-----|-----|-----|-----|
| Department X | 20% | 30% | 40% | —   | 10% |
| Department Y | 40% | 20% | 30% | 10% | —   |

Please Turn Over

Required:

- (i) Calculate the total overhead of production departments distributing the cost of service departments by **Simultaneous Equation Method**.
- (ii) Calculate the overhead rate per hour of production departments. 8
3. (a) What is the Employee Cost as defined in CAS-7 (Limited Revision 2017)? Also discuss the general principles of its measurement as per CAS-7. (*any five only*) 6
- (b) The following information has been extracted from the financial books of ABC Ltd. for the year ended 31st March, 2019:

| <u>Particulars</u>                          | <u>Amount (₹)</u> |
|---|-------------------|
| Direct materials consumption                | 10,00,000         |
| Direct wages                                | 6,00,000          |
| Factory Overhead                            | 3,20,000          |
| Administrative Overhead                     | 1,40,000          |
| Selling and Distribution Overhead           | 1,92,000          |
| Bad debts                                   | 16,000            |
| Preliminary expenses written-off            | 8,000             |
| Legal expenses                              | 2,000             |
| Dividend received                           | 20,000            |
| Interest on deposits received               | 4,000             |
| Sales(24000 units)                          | 24,00,000         |
| Closing stock of finished goods (800 units) | 64,000            |
| Closing stock of work-in-progress           | 48,000            |

The cost accounts for the same period reveal that the direct materials consumption was ₹ 11,20,000. Factory overheads recovered at 20% of prime cost; Administration overheads recovered @ ₹ 6 per unit of production; and selling and distribution overheads recovered at ₹ 8 per unit sold.

Required:

- (i) Find out the profit as per financial books.
- (ii) Prepare the cost sheet and ascertain the profit per cost accounts.
- (iii) Prepare a statement reconciling profit shown by financial and cost accounts.

4. (a) VIPUL LTD. submits the following information on 31st March, 2019:

| Particulars                               | Amount (₹) |
|---|------------|
| Sales for the year                        | 55,00,000  |
| Purchases of material for the year        | 22,00,000  |
| Direct labour                             | 13,00,000  |
| Inventories at the beginning of the year— |            |
| Finished goods                            | 1,40,000   |
| Work-in-progress                          | 80,000     |
| Materials inventory—                      |            |
| At the beginning of the year              | 60,000     |
| At the end of the year                    | 80,000     |
| Inventories at the end of the year—       |            |
| Work-in-progress                          | 1,20,000   |
| Finished goods                            | 1,60,000   |

Factory overheads were 60% of the direct labour cost.

Administration expenses were 5% of sales.

Selling & distribution expenses were 10% of sales.

You are required to prepare a Cost Sheet with all elements.

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- (b) WEST LAND LTD. in the course of refining crude oil obtains four joint products P, Q, R and S. The total cost till the split-off point was ₹ 9,76,640. The output and sales in the year 2018 were as follows:

| Product | Output (Gallon) | Sales Amount (₹) | Separate Costs Amount (₹) |
|---------|-----------------|------------------|---------------------------|
| P       | 50,000          | 12,50,000        | 2,60,000                  |
| Q       | 10,000          | 30,000           | 20,000                    |
| R       | 5,000           | 50,000           | —                         |
| S       | 8,000           | 80,000           | 10,000                    |

Required:

- Calculate the net income for each of the products if the joint costs are apportioned on the basis of Net realisable values (NRV) of the different products.
- Calculate the net income of each of the products if the company decides to sell the products at the split-off point itself as – P @ ₹ 18, Q @ ₹ 1.50, R @ ₹ 10 and S @ ₹ 7.80 per gallon.

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Please Turn Over

5. (a) CARLHAMS LTD. runs a lodging home in a hill station. For this purpose, it has hired a building at a rent of ₹ 1,20,000 per month along with 5% of total takings. The lodging home has three types of suites for its customers, viz., single room, double rooms and triple rooms.

Following information is given:

| Type of Suite | Number | Occupancy% |
|---------------|--------|------------|
| Single Room   | 100    | 80%        |
| Double Rooms  | 40     | 60%        |
| Triple Rooms  | 20     | 50%        |

The rent of double rooms suite is to be fixed at 1.5 times of the single room suite and that of triple rooms suite as twice of the double rooms suite.

The expenses for the year 2018 are as follows:

| Particulars                 | Amount (₹) |
|-----------------------------|------------|
| Staff salaries              | 32,50,000  |
| Room attendants' wages      | 12,00,000  |
| Lighting, heating and power | 9,75,000   |
| Repairs & renovation        | 4,80,000   |
| Laundry charges             | 1,65,000   |
| Interior decoration         | 1,80,000   |
| Sundry expenses             | 1,94,000   |

Provide profit @ 20% on total takings and assume 360 days in a year.

You are required to work out the room rent chargeable per day for each type of suite.

CMA Aspirants

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- (b) NIRVANA LTD. undertook a contract for ₹ 50,00,000 on 1st April, 2018. On 31st March, 2019 when the accounts of the company were closed, the following details about the contract were gathered:

| Particulars                     | Amount (₹) |
|---------------------------------|------------|
| Materials purchased             | 10,00,000  |
| Wages paid                      | 4,50,000   |
| General expenses                | 1,00,000   |
| Plant purchased                 | 5,00,000   |
| Materials on hand on 31.03.2019 | 2,50,000   |
| Wages accrued on 31.03.2019     | 50,000     |
| Work certified                  | 20,00,000  |
| Cash received                   | 15,00,000  |
| Work uncertified                | 1,50,000   |
| Depreciation of plant           | 50,000     |

The above contract contained an escalation 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 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.

*Required:*

Prepare Contract Account of the company as on 31st March, 2019.

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6. (a) MODERN LTD. has three departments X, Y and Z, each of which makes a different product. The budgeted data for the coming year are as follows:

| Particulars      | Amount (₹) |           |           |
|------------------|------------|-----------|-----------|
|                  | X          | Y         | Z         |
| Sales            | 22,40,000  | 11,20,000 | 16,80,000 |
| Direct materials | 2,80,000   | 1,40,000  | 2,80,000  |
| Direct labour    | 1,12,000   | 1,40,000  | 4,48,000  |
| Direct expenses  | 2,80,000   | 1,40,000  | 5,60,000  |
| Fixed cost       | 5,60,000   | 2,80,000  | 5,60,000  |

The management of the company is considering to close down department 'Z'. There is a possibility of reducing fixed cost by ₹ 1,50,000 if department 'Z' is closed down.

Advise the management whether or not department 'Z' should be closed down.

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- (b) SRJAN LTD. had incurred fixed expenses of ₹ 9,00,000 with sales of ₹ 20,00,000 and earned a profit of ₹ 3,00,000 during the first half-year. In the second-half, it suffered a loss of ₹ 1,50,000.

*Required:*

Calculate the following:

- The P/V Ratio, Break Even Point and Margin of Safety for the first half-year.
- The expected sales amount for the second half-year assuming that the selling price and fixed expenses remained unchanged during the second half-year.
- The Break Even point and Margin of Safety for the whole year.

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Please Turn Over

7. (a) BENCO LTD, a manufacturing concern which has adopted standard costing furnishes the following information for the month ending March 31, 2019:

The standard mix to produce one unit of product Z is as under—

|            |                    |
|------------|--------------------|
| Material A | 30kg @ ₹ 30 per kg |
| Material B | 40kg @ ₹ 50 per kg |
| Material C | 50kg @ ₹ 40 per kg |

During the month of December 2018, 10 units of product Z were actually produced and consumption was as under—

|            |                     |
|------------|---------------------|
| Material A | 320kg @ ₹ 35 per kg |
| Material B | 475kg @ ₹ 55 per kg |
| Material C | 435kg @ ₹ 36 per kg |

Required:

Calculate the following Material Variances:

- Material Cost Variance
  - Material Price Variance
  - Material Usage Variance
  - Material Mix Variance
  - Material Yield Variance
- 8
- (b) ANKRITI LTD, manufactures product X and product Y during the year ending on 31st March, 2019. It is expected to sell 7500 kg of product X and 37500 kg of product Y @ ₹ 60 and ₹ 32 per kg respectively.

The direct materials A, B and C are mixed in the proportion of 4:4:2 in the manufacture of Product X and in the proportion of 3:5:2 in the manufacture of product Y. The actual and budget inventories for the year are as follows:

| Particulars | Opening Stock (kg) | Expected Closing Stock (kg) | Anticipated Cost per kg (₹) |
|-------------|--------------------|-----------------------------|-----------------------------|
| Material A  | 3000               | 2400                        | 10                          |
| Material B  | 2500               | 5800                        | 8                           |
| Material C  | 16000              | 17300                       | 6                           |
| Product X   | 1500               | 2000                        | —                           |
| Product Y   | 3000               | 3500                        | —                           |

Required:

Prepare the Production Budget and Materials Budget showing the purchase cost of materials for the year ending 31st March, 2019.

# CMA Aspirants

8. Answer *any three* out of the following four questions:

5×3=15

- (a) Distinguish between Cost Allocation and Cost Apportionment.
  - (b) State the main objectives of Cost Accounting.
  - (c) List out the various measures to reduce the Labour Turnover (*any five*).
  - (d) Write a brief note on Master Budget.
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