

## INTERMEDIATE EXAMINATION

December 2017

P-8(CAC)  
Syllabus 2016

### Cost Accounting

Time Allowed: 3 Hours

Full Marks: 100

*The figures on the right margin 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*): 1×10=10

(i) Cost of idle time arising due to non-availability of raw material is

- (A) recovered by inflating the raw material rate.
- (B) recovered by inflating the wage rate.
- (C) charged to factory overheads.
- (D) charged to costing profit and loss account.

(ii) Selling and distribution overheads are absorbed on the basis of

- (A) rate per unit.
- (B) percentage on works cost.
- (C) percentage on selling price of each unit.
- (D) Any of the above

**Please Turn Over**

- (iii) What entry will be passed under integrated system for purchase of stores on credit?
- (A) Dr. Stores  
Cr. Creditors
  - (B) Dr. Purchases  
Cr. Creditors
  - (C) Dr. Stores Ledger Control A/c  
Cr. Creditors
  - (D) Dr. Stores Ledger Control A/c  
Cr. General Ledger Adjustment A/c
- (iv) In a process 800 units are introduced during 2016-17. 5% of input is normal loss. Closing work-in-progress 60% complete is 100 units. 660 completed units are transferred to next process. Equivalent production for the period is
- (A) 760 units
  - (B) 744 units
  - (C) 540 units
  - (D) 720 units
- (v) \_\_\_\_\_ deals with the principles and methods of determining the production or operation overheads.
- (A) CAS-3
  - (B) CAS-5
  - (C) CAS-9
  - (D) CAS-16
- (vi) There is a loss as per financial accounts ₹ 10,600, donations not shown in cost accounts ₹ 6,000. What would be the profit or loss as per cost accounts?
- (A) Loss ₹ 16,600
  - (B) Profit ₹ 16,600
  - (C) Loss ₹ 4,600
  - (D) Profit ₹ 4,600

- (vii) A hotel having 100 rooms of which 80% are normally occupied in summer and 25% in winter. Period of summer and winter be taken as 6 months each and normal days in a month be assumed to be 30. The total occupied room days will be
- (A) 1525 Room days
  - (B) 18900 Room days
  - (C) 36000 Room days
  - (D) None of the above
- (viii) A firm has fixed expenses ₹ 90,000, sales ₹ 3,00,000 and profit ₹ 60,000. The P/V ratio of the firm is
- (A) 10%
  - (B) 20%
  - (C) 30%
  - (D) 50%
- (ix) Marginal costing technique follows the following basis of classification:
- (A) Element-wise
  - (B) Function-wise
  - (C) Behaviour-wise
  - (D) Identifiability-wise
- (x) Which of the following is not a potential benefits of using a budget?
- (A) More motivated managers
  - (B) Enhanced co-ordination of firm activities
  - (C) Improved inter-departmental communication
  - (D) More accurate external financial statements

- (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 the alphabet instead of copying contents into the answer Books)

1×5=5

	Column I		Column II
(i)	Component of Cost Sheet	(A)	High initial costs
(ii)	Objective of Cost Accounting	(B)	Classification of cost
(iii)	CAS 1	(C)	In terms of completed units
(iv)	Equivalent Production	(D)	Reference to the job
(v)	De-merit of a centralized purchase organization	(E)	To determine the value of closing inventory

- (c) **State whether the following statements 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) By-products may undergo further processing before sale.
- (ii) Materials which can be identified with the given product unit of cost centre is called as indirect materials.
- (iii) Increasing Labour Turnover increases the productivity of labour resulting in low costs.
- (iv) In case of materials that suffers loss in weight due to evaporation etc. the issue price of the materials is inflated to cover up the losses
- (v) Penalties and fines are included in cost accounts to determine the cost of production.

- (d) **Fill in the blanks suitably:** (You may write only the Roman numeral and content filling the blanks)

1×5=5

- (i) In standard costs, \_\_\_\_\_ norm is applied as a scale of reference for assessing actual cost to serve as a basis of cost control.
- (ii) Material Transfer Note is a \_\_\_\_\_ for transferring the materials from one job to other job.

- (iii) One of the disadvantages of overtime working is incurring \_\_\_\_\_ labour cost.
- (iv) CAS-2 deals with Cost Accounting Standard on \_\_\_\_\_ determination.
- (v) Where the cost and financial accounts are maintained independently of each other, it is indispensable to \_\_\_\_\_ them, as there are differences in the profits of two sets of books.

### Section – B

*Answer any five questions from question numbers 2 to 8.*

*Each question carries 15 marks.*

15×5=75

2. (a) From the following particulars with respect to a particular item of materials of a manufacturing company, calculate the best quantity to order:

Ordering quantities (tonne)	Price per ton (₹)
Less than 250	6.00
250 but less than 800	5.90
800 but less than 2,000	5.80
2,000 but less than 4,000	5.70
4,000 and above	5.60

The annual demand for the material is 4,000 tonnes. Stock holding costs are 25% of material cost p.a. The delivery cost per order is ₹ 6.00.

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- (b) The summary as per primary distribution is as follows:

Production departments A– ₹ 2,500; B– ₹ 2,300 & C– ₹ 1,700

Service departments X– ₹ 700; Y– ₹ 900

Expenses of service departments are distributed in the ratios of:

X department : A– 20%, B– 40%, C– 30% and Y– 10%

Y department : A– 40%, B– 20%, C– 20% and X– 20%

Show the distribution of service costs among A, B and C under repeated distribution method.

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3. (a) How would you treat overtime in cost records as per CAS-7?

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(b) The following is the Trading & Profit and Loss Account of Ram & Co.:

Particulars	₹	Particulars	₹
To Materials consumed	23,01,000	By Sales (30000 units)	48,75,000
To Direct wages	12,05,750	By Stock of Finished goods (1000 units)	1,30,000
To Production overheads	6,92,250	By W.I.P: ₹	
		Material 55,250	
		Wages 26,000	
		Prod. O. H. <u>16,250</u>	97,500
To Administration Overheads	3,10,375	By Interest on Bank deposit	65,000
To Selling & Distribution Overheads	3,68,875	By Dividends	3,90,000
To Preliminary expenses written off	22,790		
To Goodwill written off	45,000		
To Fines	3,250		
To Interest of mortgage	13,000		
To Loss on sale of machine	16,250		
To Taxation	1,95,000		
To Net Profit	3,83,960		
	55,57,500		55,57,500

Ram & Co. manufactures a standard unit. The cost accounting records of the firm shows the following information:

(i) Production overheads have been charged at 20% on prime cost.

- (ii) Administration overheads have been recovered at ₹ 9.75 per finished unit.  
 (iii) Selling and distribution overheads have been recovered at ₹ 13 per unit sold.

**Required:**

- (i) Prepare a statement showing cost and profit as per cost records.  
 (ii) Prepare a statement reconciling the profit disclosed by cost accounts with that shown in financial accounts. 10
4. (a) Component 'Citipride' is made entirely in cost centre 200. Material cost is 6 paise per component and each component takes 10 minutes to produce. The machine operator is paid 72 paise per hour, and machine hour rate is ₹ 1.50. The setting up of the machine to produce the component 'Citipride' takes 2 hours 30 minutes. On the basis of this information, **prepare** a cost sheet showing the production and setting up cost, both in total and per component, assuming that a batch of:
- (i) 10 components,  
 (ii) 100 components, and  
 (iii) 1000 components is produced. 9
- (b) SG Ltd. manufactures product A which yields two by-products B and C. The actual joint expenses of manufacturing for a period were ₹ 9,000.  
 The profits on each product as a percentage of sales are 33-1/3%, 25% and 15% respectively.  
 Subsequent expenses are as follows:

Particulars	Products (₹)		
	'A'	'B'	'C'
Material	100	75	25
Direct	200	125	50
Overheads	150	125	75
<b>Total</b>	<b>450</b>	<b>325</b>	<b>150</b>
Sales	6,300	4,800	2,500

Apportion the joint expenses.

5. (a) Shri Rajesh Agarwal has started transport business with a fleet of 10 taxies. The various expenses incurred by him are given below:

- (i) Cost of each taxi ₹ 3,00,000
- (ii) Salary of Office Staff ₹ 5,000 p.m.
- (iii) Salary of Garage's Supervisor ₹ 10,000 p.m.
- (iv) Rent of Garage ₹ 5,000 p.m.
- (v) Drivers Salary (per taxi) ₹ 10,000 p.m.
- (vi) Road Tax and Repairs per taxi ₹ 6,000 p.a.
- (vii) Insurance premium @ 6% of cost p.a.

The life of a taxi is 300000 Km. and at the end of which it is estimated to be sold at ₹ 25,000. A taxi runs on an average 6000 Km. per month of which 10% it runs empty, petrol consumption 11 Km. per litre of petrol costing ₹ 72 per litre. Oil and other sundry expenses amount to ₹ 50 per 100 Km.

**Calculate the effective cost** of running a taxi per kilometre. If the hire charge is ₹ 13 per kilometre on average, **find out** the profit that Shri Agarwal may expect to make in the first year of operation.

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- (b) A contractor has undertaken a construction work at a price of ₹ 5,00,000 and begun the execution of work on 1st January, 2016. The following are the particulars of the contract up to 31st December, 2016.

Particulars	Amount ₹	Particulars	Amount ₹
Machinery	30,000	Overheads	8,252
Materials	1,70,698	Materials returned	3,098
Wages	1,48,750	Work certified	3,90,000
Direct expenses	6,334	Cash received	3,60,000
Uncertified work	9,000	Materials on 31.12.2016	3,766
Wages outstanding	5,380		
Value of plant on 31.12.2016	23,000		

It was decided that the profit made on the contract in the year should be arrived at by deducting the cost of work certified from the total value of the architect's certificate, that 1/3 of the profit so arrived at should be regarded as a provision against contingencies and that such provision should be increased by taking to the credit of Profit and Loss Account only such portion of the 2/3rd profit, as the cash received to the work certified. **Prepare the Contract Account** showing the profit on the Contract.

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6. (a) Following particulars relate to a manufacturing factory for the month of March, 2017

Variable cost per unit	₹ 14
Fixed factory overhead	₹ 5,40,000
Fixed selling overhead	₹ 2,52,000
Sales price per unit	₹ 20

- What is the break-even point expressed in rupee sales?
  - How many units be sold to earn a target net income of ₹ 60,000 per month?
  - How many units must be sold to earn a net income of 25% on cost?
  - What should be the selling price per unit if break-even point is to be brought down to 120000 units?
- (b) There are three similar plants under one Corporate Management who wants them to be merged for better operation. The following are the details relating to these plants.

	Plant A	Plant B	Plant C
Capacity in Operation	100%	70%	50%
	(₹ in lakhs)		
Turnover	300	280	150
Variable Cost	200	210	75
Fixed Cost	70	50	62

**You are required to calculate :**

- Capacity of merged plant to be operated to break-even;
- Profitability of working at 75% capacity;
- The turnover from the merged plant to give a profit of ₹ 28 lakhs.

7. (a) The details regarding the composition and the weekly wage rates of labour force engaged on a job scheduled to be completed in 30 weeks are as follows:

Category of Workers	Standard		Actual	
	No. of Workers	Weekly Wage Rate per worker	No. of Workers	Weekly Wage Rate per worker
Skilled	75	60	70	70
Semi-skilled	45	40	30	50
Unskilled	60	30	80	20

The work is actually completed in 32 weeks.

**Calculate the following Labour Variances:**

- (i) Labour Cost Variance;
- (ii) Labour Rate variance;
- (iii) Labour Efficiency Variance;
- (iv) Labour Revised Efficiency Variance;
- (v) Labour Mix Variance.

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- (b) Three Articles X, Y and Z are produced in a factory. They pass through two cost centers A and B. From the data furnished, **compile a statement** for budgeted machine utilization in both the centers.

- (i) Sales budget for the year:

Product	Annual Budgeted Sales (units)	Opening stock of finished products (units)	Closing stock
X	4800	600	Equivalent to 2 months sales
Y	2400	300	-- Do --
Z	2400	800	-- Do --

(ii) Machine hours per unit of product:

Product	Cost centers	
	A	B
X	30	70
Y	200	100
Z	30	20

(iii) Total number of machines:

Cost Centre:	A	338
	B	305
Total		643

(iv) Total working hours during the year: Estimated 2100 hours per machine

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

5×3=15

- (a) "Cost Accounting and Management Accounting are inter-dependent." Do you agree, discuss.
  - (b) Differentiate between Operation Cost and Operating Cost.
  - (c) Enumerate the need for predetermined overhead rate.
  - (d) What is Responsibility Accounting? Also state the Principles of Responsibility Accounting.
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