

INTERMEDIATE EXAMINATION

June 2018

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*):

1×10=10

- (i) Batch costing is suitable for

- (a) Oil Industry
- (b) Sugar Industry
- (c) Chemical Industry
- (d) Pharmaceutical Industry

- (ii) Idle time is

- (a) Time spent by workers in office
- (b) Time spent by workers in factory
- (c) Time spent by workers off their work
- (d) Time spent by workers on their job

Please Turn Over

- (iii) Warehouse expense is an example of
- (a) Production overhead
 - (b) Administration overhead
 - (c) Selling overhead
 - (d) Distribution overhead
- (iv) Standard deals with the principles and methods of determining depreciation and amortization cost is
- (a) CAS – 8
 - (b) CAS – 11
 - (c) CAS – 16
 - (d) CAS – 20
- (v) In Reconciliation Statement expenses shown only in cost accounts are
- (a) Added to financial profit
 - (b) Deducted from financial profit
 - (c) Ignored
 - (d) Deducted from costing profit
- (vi) In a job cost system, costs are accumulated
- (a) On a monthly basis
 - (b) By specific job
 - (c) By department or process
 - (d) By kind of material used
- (vii) In a process 6,000 units are introduced during a period. 5% of input is normal loss. Closing work-in-process 60% complete is 800 units. 4,900 completed units are transferred to next process. Equivalent production for the period is
- (a) 6,800 units
 - (b) 5,700 units
 - (c) 5,680 units
 - (d) 5,380 units
- (viii) Which of the following best describes a fixed cost?
- (a) It may change in total where such change is unrelated to changes in production.
 - (b) It may change in total where such change is related to changes in production.
 - (c) It is constant per unit of change in production.
 - (d) It may change in total where such change depends on production within the relevant range.

- (ix) Z Ltd. is planning to sell 1,00,000 units of product A for ₹ 12.00 per unit. The fixed costs are ₹ 2,80,000. In order to realize a profit of ₹ 2,00,000, what would the variable costs be?
- (a) ₹ 4,80,000
(b) ₹ 7,20,000
(c) ₹ 9,00,000
(d) ₹ 9,20,000
- (x) Sales budget is an example of
- (a) Expenditure budget
(b) Functional budget
(c) Capital budget
(d) Master budget

(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)	Imputed costs	A	Cost control technique
(ii)	FSN analysis	B	Treated as part of factory expenses
(iii)	Captive power plant expenses	C	Costing profit and loss account
(iv)	Abnormal loss is transferred to	D	Process of classifying material
(v)	Variance analysis	E	Direct allocation
		F	Not involving cash outlay
		G	Management by exception
		H	Decision package

- (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) Factory overhead cost applied to a job is usually based on a pre-determined rate.
 - (ii) CAS-19 deals with the principles and methods of determining the manufacturing cost of excisable goods.
 - (iii) Cost ledger control account makes the cost ledger self-balancing.
 - (iv) FIFO method is followed for evaluation of equivalent production when prices are fluctuating.
 - (v) Standard costs and budgeted costs are inter-related and inter-dependent.
- (d) **Fill in the blanks :** (You may write only the Roman numeral and the content filling the blanks) 1×5=5
- (i) _____ is the process of regulating the action so as to keep the element of cost within the set parameters.
 - (ii) In absorption costing _____ is added to inventory.
 - (iii) CAS _____ stands for cost of service cost centre.
 - (iv) At _____ contribution available is equal to total fixed cost.
 - (v) The document which describes the budgeting organisation, budgeting procedure etc. is known as _____.

Section – B

Answer any five questions from question numbers 2 to 8.

Each question carries 15 marks.

15×5=75

2. (a) The existing Incentive system of SHRISTI LTD is as under:

Normal working week	:	5 days of 8 hours each <i>plus</i> 3 late shifts of 3 hours each
Rate of Payment	:	Day work : ₹160 per hour Late shift : ₹ 225 per hour

Average output per operator
for 49-hours week i.e. including
3 late shifts : 120 articles.

In order to increase output and eliminate overtime, it was decided to switch on to a system of payment by results. The following information is obtained:

Time-rate (as usual)	:	₹ 160 per hour
Basic time allowed for 15 articles	:	5 hours
Piece-work rate	:	Add 20% to basic piece-rate
Premium Bonus	:	Add 50% to time.

Required:

Prepare a Statement showing hours worked, weekly earnings, number of articles produced and labour cost per article for one operator under the following systems:

- (i) Existing time-rate
- (ii) Straight piece-work
- (iii) Rowan system
- (iv) Halsey premium system

Assume that 135 articles are produced in a 40-hour week under straight piece work, Rowan Premium System, the Halsey Premium System above and worker earns half the time saved under Halsey Premium System. 9

- (b) The following figures are taken from the accounts of BALEN LTD a manufacturing concern for the month of October, 2017:

Indirect Materials : Production Departments : X ₹ 19,000; Y ₹ 24,000; Z ₹ 4,000;

Service Departments : Maintenance ₹ 30,000; Stores ₹ 8,000.

Indirect Wages : Production Departments : X ₹ 18,000; Y ₹ 22,000; Z ₹ 6,000;

Service Departments : Maintenance ₹ 20,000; Stores ₹ 13,000.

Other Expenses : Power and Light : ₹ 1,20,000; Rent and Rates ₹ 56,000; Insurance of Assets ₹ 20,000; Meal Charges ₹ 60,000; Depreciation @ 6% p.a. on capital value of assets.

Departmental Data

Items	Production Departments			Service Department	
	X	Y	Z	Maintenance	Stores
Area (Sq. Ft.)	4,000	4,000	3,000	2,000	1,000
Capital Value of Assets (₹)	20,00,000	24,00,000	16,00,000	12,00,000	8,00,000
Kilowatt Hours	2,000	2,200	800	750	250
Number of Employees	180	240	60	80	40

Service rendered by Maintenance Department to Production Departments:

X 50%; Y 30%; Z 20%.

Service rendered by Stores Department to Production Departments:

X 40%; Y 40%; Z 20%.

From the above data, **prepare a** Departmental Distribution Summary showing apportion of costs of Service Departments to the Production Departments and the Total Overheads of the Production Departments. 6

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Prepare a statement showing the reconciliation statement and findout the profit as per cost Accounts.

4. (a) The following data are available from the books and records of VEEMYES Ltd. for the month of November 2017.

Direct Labour cost : ₹ 20,000 (125% of factory overheads)

Inventory accounts show the following figures:

	November 1 ₹	November 30 ₹
Raw materials	10,000	20,000
Work in progress	8,000	4,000
Finished goods	10,000	5,000
Selling expenses		15,000
Office expenses		10,000
Sales		1,25,000

The company maintains a profit of 25% on cost.

You are **required** to **prepare** a cost sheet for the month of November 2017 with all elements.

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- (b) CBA Ltd. , manufactures certain grades of products known as M, B1 and B2. In course of manufacture of product M (main product), by-products- B1 and B2 emerge. The joint expenses of manufacture amount to ₹ 2,37,600.

All the three products are processed further after separation and sold as per details given below:

	Product-M	(By products)	
		Product B1	Product B2
Sales (₹)	2,00,000	1,20,000	80,000
Cost incurred after separation (₹)	20,000	15,000	10,000
Profit as percentage on sales	25	20	15

Total fixed selling expenses are 10% of total cost of sales which are apportioned to the three products in the ratio of 20:40:40.

Required:

- (i) Prepare a statement showing the apportionment of joint costs to the products (M, B1 and B2)
- (ii) If the product B1 (by product) is not subject to further processing and is sold at the point of separation, for which there is a market at ₹ 1,00,440 without incurring any selling expenses, would you advise its disposal at this stage? Show the workings. 7

5. (a) JANATA TRANSPORT LTD. a Transport Company is running 4 buses between two towns which are 50 kms. away. Seating capacity of each bus is 40 passengers. The following information is obtained from its books for November, 2017:

Particulars	₹
Wages of drivers, conductors and cleaners	24,000
Salaries of office and supervisory staff	10,000
Diesel, oil and other lubricants	40,000
Repairs and maintenance	8,000
Taxes, insurance etc.	16,000
Depreciation of buses	26,000
Interest and other charges	20,000

Actual passengers carried were 75% of the seating capacity. All the 4 buses ran on all the days of the month. Each bus made one to and fro round trip per day.

Prepare the Operating Cost Statement and determine the cost per passenger km. for each bus. 8

- (b) A contractor, who prepare his accounts on 31st March each year, commenced a Contract No. 220 on 1st July, 2016. The following information is revealed from his costing records on 31st March, 2017:

Particulars	(₹)
Materials sent to site	2,51,000
Labour	5,65,600
Foreman's salary	81,300

A machine costing ₹ 2,60,000 remained in use on site for 146 days. Its working life is estimated at 7 years and final scrap value at ₹ 15,000. A supervisor is paid ₹ 8,000 per month

and has devoted one half of his time on the contract. All other expenses amount to ₹ 1,36,500. Materials at site on 31st March, 2017 cost ₹ 35,400. The contract price is ₹ 20,00,000. On 31st March, 2017 two-third of the contract was completed, however, the architect gave certificate only for 50% of the contract price and ₹ 7,50,000 had so far been paid on account.

Prepare Contract Account and state how much profit or loss should be included on 31st March, 2017 in financial accounts. 7

6. (a) ANKIT LTD. a manufacturing Company which produces three products furnishes the following information for the year 2016-17:

Particulars	Products		
	A	B	C
Selling Price (per unit)	₹ 200	₹ 150	₹ 100
Profit Volume Ratio	10%	20%	40%
Raw Material content as a % of Variable Cost	50%	50%	50%
Maximum Sales Potential (units)	40,000	25,000	10,000

Fixed costs are estimated at ₹ 12 lakhs. The firm uses same raw material in all the three products. Raw material is in 'Short Supply'. The firm has a quota for the supply of raw materials of the value of ₹ 36 lakhs for the year 2016-17 for the production of three products to meet sales demand.

Required:

Determine the optimal product mix and ascertain the maximum profit therefrom. 8

- (b) The following figures are obtained from the records of P. Ltd.:

	2015-16 (₹)	2016-17 (₹)
Sales	80,000	1,00,000
Net Profit	10,000	16,000

Required:

Calculate the following:

- Profit Volume Ratio
- Break Even Point
- Profit or loss at sales of ₹ 40,000
- Sales required to earn a profit of ₹ 22,000
- Margin of Safety if sales in ₹ 55,000

7. (a) The standard cost card of A & Co. shows the following costs:

Material cost – 2 kg @ ₹ 2.50 each ₹ 5.00 per unit

Wages – 2 hours @ 50 paise each ₹ 1.00 per unit

The actual data from business operations are as follows:

Production 8,000 units

Actual total cost of production:

Material cost – 16,500 kg @ ₹ 2.40 each ₹ 39,600

Wages – 18,000 hours @ 40 paise each ₹ 7,200

Calculate the following variances:

- (i) Material Cost Variance (MCV);
- (ii) Material Price Variance (MPV);
- (iii) Material Usage Variance (MUV);
- (iv) Labour Cost Variance (LCV);
- (v) Labour Rate Variance (LRV);
- (vi) Labour Efficiency Variance (LEV).

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(b) Summarised below are the revenue and expenditure figures of AB Ltd. for the month of March to August, 2017:

Month	Sales (₹)	Purchases (₹)	Wages (₹)	Expenses (₹)
March	6,50,000	4,00,000	1,20,000	50,000
April	7,00,000	4,80,000	1,50,000	50,000
May	7,50,000	4,50,000	1,50,000	60,000
June	8,00,000	4,80,000	1,80,000	60,000
July	8,20,000	4,00,000	1,80,000	80,000
August	8,90,000	5,00,000	2,00,000	80,000

The following further information is available:

- (i) 10% Purchases and sales are on cash basis.
- (ii) Advance payment of income tax in August, 2017 ₹ 50,000.
- (iii) Plant purchased and price to be paid in June, 2017 ₹ 1,00,000.

(iv) Time lag—

Credit sales	2 months
Credit purchases	1 month
Wages	½ month
Expenses	½ month

Required:

Prepare a Cash Budget for 3 months starting on 1st June, 2017 when cash balance is ₹ 2,00,000. 7

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

5×3=15

- (a) Differentiate between cost control and cost reduction.
 - (b) Cost accounting has emerged as a specialized discipline due to various factors. List out these factors. (Any five)
 - (c) What is Economic Order Quantity (EOQ)? State the assumptions underlying EOQ.
 - (d) What is Principal Budget Factor? Explain your answer with suitable example.
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