

INTERMEDIATE EXAMINATION

December 2016

P-10(CMA)
Syllabus 2012

Cost and Management Accountancy

Time Allowed: 3 Hours

Full Marks: 100

The figures in the margin on the right side indicate full marks.

All workings must form part of your answer. Assumptions, if any, must be clearly indicated.

Please: (1) Write answers to all parts of a question together.

(2) Open a new page for answer to a new question.

(3) Attempt the required number of questions only.

SECTION – A

(25 Marks)

All questions are compulsory.

1. (a) In a factory weekly demand of a component is 2500 units. Setting up cost per batch is ₹ 400 and manufacturing cost per unit is ₹ 260. If annual carrying cost per unit is 10% of manufacturing cost, calculate Economic Batch Quantity. 2
- (b) Material costs, labour costs and variable overhead costs are ₹ 125, ₹ 150 and ₹ 50 per unit respectively. If the fixed expenses for 20000 units are ₹ 6,40,000 and required rate of return is 25% on transfer price, then find out the transfer price per unit. 2
- (c) The budgeted cost for repairs and maintenance at 30000 and at 33000 units levels are ₹ 1,45,000 and ₹ 1,54,000 respectively. If 35000 units are to be produced, how much amount should be budgeted for repairs and maintenance? 2
- (d) In a company, in 2015-16 sales amounted to ₹ 40,00,000 as compared to ₹ 27,00,000 in 2014-15. Profits in 2014-15 were ₹ 2,80,000, which amounted to 35% of the profits of 2015-16. Calculate P/V ratio. 2
- (e) In a production process, normal loss is 10% of input and abnormal gain amounted to 600 units. If final output of the process is 16800 units, find out the quantity of actual loss, if any. 2
- (f) From the following data compute total profit variance: 4
- | | | |
|----------------|----------|--------------|
| Budgeted Sales | ₹ 48,000 | (2400 units) |
| Actual Sales | ₹ 55,000 | (2500 units) |
| Actual Cost | ₹ 45,000 | (2500 units) |
| Budgeted Costs | ₹ 38,400 | (2400 units) |
2. (a) Which Rules govern maintenance of cost accounting records and cost audit as per Section 148 of the Companies Act, 2013? 2
- (b) Differentiate between cost accounting policy and cost accounting system. 2
- (c) From which date Companies (Cost Record & Audit) Rules 2014 have come into force? 1
3. (a) Cost function is: $C = \frac{4}{5}x + \frac{16}{5}$, where x is output in units and C is total cost in rupees. Calculate variable cost per unit and fixed cost per unit. 2

Please Turn Over

- (b) A monopolist has demand curve $x = 106 - 2p$ and average cost curve $AC = 5 + x/50$. The total revenue is $R = xp$, determine:
- (i) the most profitable output and
 - (ii) the maximum profit.
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SECTION - B
(15×5=75 Marks)

Answer Question no. 4, 5 and 6 and any two from the rest.

4. (a) The total cost function of a monopolist is given by
 $C = 50 + 40x = 50 + 40(x_1 + x_2)$
The total demand is given by $P = 100 - 2x$
The demand functions of the segmented market are
 $P_1 = 80 - 2x_1$
 $P_2 = 180 - 10x_2$
- If the price discrimination is practiced by the monopolist, what will be the equilibrium output in each segment and what will be the price? Prove that the market with the higher elasticity will have the lower price. 9
- (b) What are the different methods of demand forecasting? 6
5. (a) What would be the treatment of cost of consumption of electricity from a captive generating plant and applicability of cost audit to such captive generating plants? 4
- (b) Under Companies (Cost Records and Audit) Rules, 2014 state what the Form CRA-2 is about and its broad contents. 5
- (c) Answer any two of the following: 3×2=6
- (i) What constitutes the Cost Records under Rule 2(e)?
 - (ii) To which companies, requirement for cost audit under Rule 4 shall not apply?
 - (iii) What are the social objectives of cost audit?
 - (iv) Who does appoint a cost auditor and within what time limit?
6. (a) A firm sells its products at ₹ 39 per unit. If its monthly sale amounts to 1000 units, it suffers a monthly loss of ₹ 4,550. If monthly sale amounts to 1500 units, the firm makes a monthly profit of ₹ 1,950. Find BEP in units and find the required sales and MOS in rupees to earn a monthly profit of ₹ 5,850. 6
- (b) Answer any one of the following: 4×1=4
- (i) Assume that for a closed economy, $E = C + I + G$,
where, E = total expenditure on consumption goods
I = Expenditure on investment goods
G = Government spending
For equilibrium, we must have $E = Y$, Y being total income received.
For a certain Economy, it is given that $C = 25 + 0.8Y$, where $I = 20 + 0.1 Y$ and $G = 25$. Find the equilibrium value of Y, C and I.
 - (ii) State the factors influencing the price of a product.

(c) Answer any one of the following:

5×1=5

- (i) The demand and supply function under perfect competition are $y = 18 - x^2$ and $y = 2(x^2 + 3)$ respectively. Find the market price and Consumer's surplus.
- (ii) What are the special properties of quadratic production function?

7. (a) The standard cost of a chemical mixture is as follows:

60% material A at ₹ 40 per kg

40% material B at ₹ 60 per kg

A standard loss of 10% of input is expected in production. The cost record for the month of November, 2016 showed the following usage:

1100 kg of material A at a cost of ₹ 49,500

900 kg of material B at a cost of ₹ 50,400

The actual production was 1820 kg of good products.

You are required to calculate:

- (i) Material yield variance
- (ii) Material mix variance
- (iii) Material usage variance
- (iv) Material price variance
- (v) Material cost variance
- (b) Distinguish between absorption costing and marginal costing.

8. (a) The following information has been extracted from the cost records of a manufacturing company:

Stores:

	₹
Opening balance	86,400
Purchases	4,60,800
Transfer from WIP	2,30,400
Issue to WIP	4,60,800
Issue for Repairs	57,600
Deficiency found in stock	17,280

WIP:

Opening balance	1,72,800
Direct wages applied	1,72,800
Overhead charged	6,91,200
Closing balance	1,15,200

Finished production:

Entire production is sold at a profit of 12% on cost of production.

Wages paid (including indirect wages)	2,01,600
Overhead incurred	7,20,000

Draw Store ladger Control Account, WIP Control account, Overhead Control Account and Costing Profit & Loss Account.

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- (b) State the appropriate costing method and cost units for each of the following industries: 6
- (i) Airlines
 - (ii) Chemical
 - (iii) Hotels
 - (iv) Medicines
 - (v) Paper
 - (vi) Electricity Supply

9. (a) The cost accountant of a manufacturing company has provided you with the following details for the year 2015:

	₹		₹
Direct Materials	1,75,000	Other Variable Costs	1,00,000
Direct Wages	1,00,000	Other Fixed Costs	80,000
Fixed Factory O/H	1,00,000	Profit	1,12,000
Variable Factory O/H	1,00,000	Sales	7,50,000

During the year, the company manufactured 2 products A and B and the output and costs were:

	Product A	Product B
Output (units)	200000	100000
Selling Price/unit (₹)	2	3.50
Direct Material/unit (₹)	0.50	0.75
Direct Wages/unit (₹)	0.25	0.50

Variable Factory O/H is absorbed as a % of Direct Wages. Other Variable Costs have been computed as: Product A ₹ 0.25/unit and Product B ₹ 0.30/ unit.

During the year 2016, it is expected that the demand for Product A will fall by 25% and for Product B by 50%. It is decided to manufacture further a Product C, the cost for which is estimated as given below:

	Product C
Output (units)	200000
Selling Price/unit (₹)	1.75
Direct Material/unit (₹)	0.40
Direct Wages/unit (₹)	0.25

It is anticipated that the Other Variable Costs/unit will be same as for Product A.

Prepare a budget to present to the management, showing the current position and the position for 2016. Comment on the comparative results. 12

- (b) State the cost accounting treatment of rectification of defective work. 3