Paper – 10: Cost & Management Accountancy

Time Allowed: 3 Hours **Full Marks: 100**

QUESTION 1, which is compulsory. Attempt all of them.
Section-A has three questions. Attempt any two of them.
Section-B has two questions. Attempt any one of them.
Section-C has three questions. Attempt any two of them.
(Working Notes should form part of the answer.)

Question.1

(a) A transport service company is running 4 buses between two towns which are 50 miles apart. Seating capacity of each bus is 40 passengers. The following particulars were obtained from their books for April, 2012.

	₹
Wages of Drivers, Conductors and Cleaners	2,600
Salaries of Office and Supervisory Staff	800
Diesel oil and other oil	3,800
Repairs and Maintenance	1,000
Taxation, Insurance etc	1,600
Depreciation	2,600
Interest and Other Charges	1,000
	13,400

Actual passengers carried were 75% of the seating capacity. All the four buses ran on all days of the month. Each bus made one round trip per day. Find out the cost per passenger mile. [2]

(b) ABC Company fixes the inter-divisional transfer prices for its products on the basis of cost plus an estimated return on investment in its divisions. The relevant portion of the budget for the Division A for the year 2012 -13 is given below.

Particulars	Amount in ₹
Fixed Assets	5,00,000
Current Assets (other than debtors)	3,00,000
Debtors	2,00,000
Annual Fixed Cost for the Division	8,00,000
Variable Cost Per unit of product	10
Budgeted Volume of Production per year (units)	4,00,00
Desired Return on Investment	20%

You are required to determine the transfer price for Division A. [2]

(c) From the following data calculate:
(a) B.E.P expressed in amount of sales in rupees.
(b) How many units must be sold to earn a net income of 10% of sales?
Sales price ₹ 20 per unit; variable manufacturing costs ₹ 10 p.u; fixed factory overheads ₹ 5,42,000 p.a; variable selling costs ₹ 4 p.u. Fixed selling costs ₹ 2,50,000 per year. [1+1]

(d) The budgeted annual sale of firm is ₹120 lakh and 20% of the same is cash sales. If the average amount of debtors of the firm is ₹16 lakhs, what will be the average collection period of credit sales? [2]

(e) The output of three different products P, Q, and R in a factory are 20,000 kg, 15,000 kg and 15,000 kg respectively. If the costs totals to ₹ 13,75,000 and are in the proportion of 4:6:7 then what will be the cost per equivalent unit in ₹? [2]

(f) Define Cost Audit. [2]

(g) Difference between Cost Accounting policy and Cost Accounting system. [2]

(h) The Cost (C) of a firm is given by the function $C = x^3 + 12x^2 - 10x + 5$, find the Average Cost, Average Variable Cost & Marginal cost and x being the output. [1+1+1=3]

(i) Find the elasticity of demand of [3]

$$P = \frac{10}{(x+3)^2}$$

SECTION A
Answer any two questions from this section.

Question.2

(a) The following information are provided to you for a month in respect of a workshop:

(i) Overhead cost variance – ₹1,400 adverse
(ii) Overhead volume variance – 1,000 adverse
(iii) Budgeted hours - 1,200 hrs.
(iv) Budgeted overhead – ₹ 6,000
(v) Actual rate of recovery of overheads - ₹ 8 per hour

You are required to compute:

(1) Overhead expenditure variance
(2) Actual overheads incurred
(3) Actual hours for actual production
(4) Overheads capacity variance
(5) Overheads efficiency variance
(6) Standard hours for actual production [10]

(b) The following information relates to the production activities of Good Wish Ltd. 3 months ending on 31st December, 2012:

Particulars	Amount in ₹
Fixed Expenses:	
Management Salaries	2,10,000
Rent and taxes	1,40,000
Depreciation of machinery	1,75,000
Sundry Office Expenses	2,22,000
Total Fixed Expenses	7,47,000
Semi- variable Expenses at 50% capacity	
Plant Maintenance	62,500
Labour	2,47,000
Salesmen's Salaries	72,500
Sundry Expenses	65,000
Total Semi- Variable Expenses	4,47,000
Variable Expenses at 50% capacity	
Materials	6,00,000

Labour	6,40,000
Salesmen's commission	95,000
Total variable Expenses	13,35,000

It is further noted that semi variable expenses remain constant between 40% and 70% capacity, increase by 10% of the above figures between 70% and 85% capacity and increase by 15% of the above figure between 85% and 100% capacity. Fixed expenses remain constant whatever the level of activity. Sales at 60% capacity are ₹25,50,000, at 80% capacity ₹34,00,000 and at 100% capacity ₹42,50,000. All items produced are sold. Prepare a flexible budget at 60%, 80% and 100% productive capacity. [10]

Question.3

(a) A work order for 100 units of a commodity has to pass through four different machines of which the machine hour rates are: Machine A – ₹ 1.50, Machine B – ₹ 2.50, Machine C – ₹ 3 and Machine D – ₹ 2.25

Following expenses have been incurred on the work order – Materials ₹ 8,000 and Wages ₹ 500.

Machine - A has been engaged for 200 hours. Machine - B for 160 hours, Machine - C for 240 hours and Machine - D for 132 hours.

After the work order has been completed, materials worth ₹ 400 are found to be surplus and are returned to stores.

Office overhead used to be 40% of works costs, but on account of all-round rise in the cost of administration, distribution and sale, there has been a 50% rise in the office overhead expenditure.

Moreover, it is known that 10% of production will have to be scrapped as not being up to the specification and the sale proceeds of the scrapped output will be only 5% of the cost of sale.

If the manufacturer wants to make a profit of 25% on the total cost of the work order, find out the selling price of a unit of commodity ready for sale. [7]

(b) A company has two plants at locations I and II, operating at 100% and 75% of their capacities respectively. The company is considering a proposal to merge the two plants at on location to optimize available capacity. The following details are available in respect of the two plants:

Particulars	Location I	Location II
Sales (₹ in lakhs)	200	75
Variable costs (₹ in lakhs)	140	54
Fixed costs (₹ in Lakhs)	30	14

For decision- making purposes you are required to work out the following information:

(i) The capacity at which the merged plant will break even.

(ii) The profit of the merged plant working at 90% capacity. [5+5=10]

(c) State the need for reconciliation of cost and financial accounts. Also state the reasons for difference in profit between the two accounts. [3]

Question.4

(a) New Construction Ltd. is engaged in a contract during the year. Following information is available at the year end.

Particulars	Amount (₹)
Contract price	6,00,000
Material delivered direct to site	1,20,000
Materials issued from stores	40,000
Materials returned to stores	4,000

Materials at site at the end of year	22,000
Direct labour payments	1,40,000
Direct expenses	60,000
Architect's fees	2,500
Establishment charges	24,500
Plant installed at cost	80,000
Value of plant at the end of year	65,000
Accrued wages at the end of year	10,000
Accrued expenses at the end of year	6,000
Cost of contract not certified by architect	23,000
Value of contract certified by architect	4,20,000
Cash received from contractor	3,78,000

During the period, materials amounting to ₹9,000 have been transferred to another contract to another place.

You are required to show the Contract A/c and Contractee A/c. [7+3=10]

(b) List out the benefits of transfer pricing policy. [5]

(c) What are the steps of Zero Based Budgeting? [5]

Section-B
Answer any one question from this section.

Question.5

(a) What are the obligations of the company as regards to cost audit? [10]

(b) Whether a Cost Auditor can be appointed as Internal Auditor of the company. Whether there is any restriction on the cost auditor to accept assignments from a company where he is the cost auditor. [2+4]

Question.6

(a) State the procedure for appointment of Cost Auditor. [8]

(b) What are the time limits for submission of cost audit report? [8]

SECTION C
Answer any two questions from this section.

Question.7

(a) Define Income Elasticity of Demand. Explain the different types of Income Elasticity of Demand? [2+4=6]

(b) The total cost function of a manufacturing firm is given by $C = 2x^3 – x^2 + 4x + 5$ and the Marginal Revenue = 9 – 3x, X = output, determine the most profitable output of the firm. [4]

(c) What are the conditions for price discrimination? [2]

Question.8

(a) Find the sales for 2011 by applying regression equation. [4]

Year	2006	2007	2008	2009	2010
Sales(₹ Lakhs)	100	150	100	160	200

(b) Differentiate between perfect competition and monopoly? [8]

Question.9

(a) A Company produces the products M, N and O from three raw materials A, B and C. One unit of product M requires 2 units of A and 3 units of B. A unit of product N requires 2 units of B and 5 units of C and one unit of product O requires 3 units of A, 2 unit of B and 4 units of C. The Company has 8 units of material A, 10 units of B and 15 units of C available to it. Profits/unit of products M, N and O are ₹4, ₹6 and ₹5 respectively.
Formulate the problem mathematically. [4]

(b) Assume that for a closed economy E= C + I + G; where E= total Expenditure on consumption goods, I= Exp. On Investment goods and G= Govt. Spending. For equilibrium, we must have E= Y, Y being total income received.
For a certain Economy, it is given that C=15 + 0.9Y, where I=20 + 0.05Y and G=35. Find the equilibrium values of Y, C and I. How will these changes, if there is no Government spending. [3+3]

(c) Define Dual Pricing? [2]