

PAPER – 10: COST & MANAGEMENT ACCOUNTANCY

MTP_Intermediate_Syllabus 2012_Jun2016_Set 1

Paper – 10: Cost & Management Accountancy

Time Allowed: 3 Hours

Full Marks: 100

All questions are compulsory, subject to instruction provided against each question. All workings must form part of your answer. Assumptions, if any, must be clearly indicated.

1. Answer the following question which is compulsory

(a) Answer the following [5x2 =10]

- (i) A company's fixed cost amount to ₹ 110 lakhs p.a. and its overall P/V ratio is 0.4. What is the annual sales of the company to have a Margin of Safety of 25%?
- (ii) The monthly cost of maintenance of machinery for 11,000 machine hours run is ₹ 1,70,000 and for 18,500 hours it is ₹ 2,02,500. What is the cost of maintenance for 14,000 hours?
- (iii) In a factory where standard costing is followed 9,600 kg of materials at ₹ 10.50/kg were actually consumed resulting in a price variance of ₹ 4,800 (A) and usage variance of ₹ 4,000 (F). What is the standard cost of actual production?
- (iv) ABC Ltd. Company has Fixed Cost of ₹ 90,000, Sales ₹ 3,00,000 and Profit of ₹ 60,000. Calculate the Sales Volume if in the next period, the ABC Ltd. Company suffered a loss of ₹ 20,000.
- (v) X, Y Ltd manufactures product A which yields two by-products B and C. The actual expenses of manufacturing for a period were ₹ 8,200. The profits on each product as a percentage of sale are 33 1/3 %, 25% and 15% respectively. Subsequent expenses are Product A ₹ 450, Product B ₹ 325, Product C ₹ 150. The sales of the products are A ₹ 6,000; B ₹ 4,000; C ₹ 2,500. Apportion the joint expenses.

(b) Match the following [5 × 1=5]

	Column 'A'		Column 'B'
1.	Relevant Cost	A	Cost Control
2.	Standard Costing	B	Decision taking
3.	Flexible Budget	C	Future costs affected by decisions taken
4.	Differential Cost Analysis	D	Profitability rate
5.	Angle of Incidence	E	Budgetary Control

- (c) (i) Can a Cost Accountant in employment be a Cost Auditor? 2
- (ii) What is the limit within which the Cost Auditor of the company should submit his Report. 2

(d) Cost = $300x - 10x^2 + \frac{1}{3}x^3$, Calculate –

- (i) Output at which Marginal Cost is minimum 2
- (ii) Output at which Average Cost is minimum 2
- (iii) Output at which Marginal Cost = Average Cost 2

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Section B

(Cost & Management Accounting – Methods & Techniques and Cost Records and Cost Audit)

Answer any three questions from the following

Each question carries 17 marks

1. (a) A practicing Cost Accountant now spends ₹ 0.90 per K.m on taxi fares for his client's work. He is considering to other alternatives the purchase of a new small car or an old bigger car.

Item	New Small Car	Old bigger Car
Purchase price	35,000	20,000
Sale price after 5 years	19,000	12,000
Repairs and servicing per annum	1,000	1,200
Taxes and insurance p.a	1,700	700
Petrol consumption per liter (K.m.	10	7
Petrol price per liter	3.5	3.5

He estimates that he does 10,000 K.m annually. Which of the three alternatives will be cheaper? If his practice expands he has to do 19,000 Km p.a which is cheaper will cost of the two cars break even? 12

- (b) In the course of manufacture of the main product 'P' by products 'A' and 'B' also emerge. The joint expenses of manufacture amount to ₹1,19,550. All the three products are processed further after separation and sold as per details given below:

	Main product	By Products	
	P	A	B
Sales	90,000	60,000	40,000
Cost incurred after separation	6,000	5,000	4,000
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. Prepare a statement showing the apportionment of joint costs to the main product and the two by products. 5

2. (a) ABC Ltd. a newly started company wishes to prepare Cash Budget from January. Prepare a cash budget for the first six months from the following estimated revenue and expenses.

Month	Total Sales	Materials	Wages	Overheads	
				Production	Selling & Distribution
January	20000	20000	4000	3200	800
February	22000	14000	4400	3300	900
March	28000	14000	4600	3400	900
April	36000	22000	4600	3500	1000
May	30000	20000	4000	3200	900
June	40000	25000	5000	3600	1200

Cash balance on 1st January was ₹ 10,000. A new machinery is to be installed at ₹ 20,000 on credit, to be repaid by two equal installments in March and April, sales commission @5% on total sales is to be paid within a month following actual sales. ₹10,000 being the amount of 2nd call may be received in March. Share premium amounting to ₹ 2,000 is also obtained with the 2nd call. Period of credit allowed by

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suppliers — 2months; period of credit allowed to customers — 1month, delay in payment of overheads 1 month. Delay in payment of wages $\frac{1}{2}$ month. Assume cash sales to be 50% of total sales. 12

(b) Distinguish between Standard Costing and Budgetary Control 5

3. (a) The following is the Trading and Profit and Loss account of M/s. Time and trading limited for the year ended 31.12.2011

	₹		₹
To Materials consumed	7,08,000	By Sales 30,000 units	15,00,000
To Direct Wages	3,71,000	By Finished stock 1,000 units	40,000
To Works overheads	2,13,000	By Work –in-progress:	
		Material	17,000
		Wages	8,000
		Works OH	5,000
To Admn. overheads	95,500		
To Selling and Distribution Overheads	1,13,500		
To Net profit	69,000		
	15,70,000		15,70,000

Manufacturing a standard unit, the company's cost records show that:

1. Works overheads have been charged to work-in-progress at 20% on prime cost.
2. Administration overheads have been recovered at ₹ 3 per finished unit.
3. Selling and distribution overheads have been recovered at ₹ 4 per unit sold.
4. The unabsorbed or over absorbed overheads have not been adjusted into costing profit and loss account.

Prepare:

1. A costing profit and loss account indicating net profit.
2. A statement reconciling the profit as disclosed by cost accounts and that shown in financial accounts. 8

(b) The cost accountant of a Co. was given the following information regarding the OHs for Feb, 2015:

- a. Overhead cost variance ₹ 1,400 (A)
- b. Overheads volume variance ₹ 1,000 (A)
- c. Budgeted hours for Feb, 2015: 1,200 Hours
- d. Budgeted OH for Feb, 2015: ₹ 6,000
- e. Actual rate of recovery of OH ₹ 8 per hour

You are required to assist him in computing the following for Feb, 2015

- 1) OHs expenditure variance
- 2) Actual Oh's incurred
- 3) Actual hours for actual production
- 4) OHs capacity variance
- 5) OHs efficiency variance
- 6) Standard hours for actual production 9

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4. (a) Mr. Sohan Singh has started transport business with a fleet of 10 taxies. The various expenses incurred by him are given below:
- Cost of each taxi ₹ 75,000
 - Salary of office Staff ₹ 1,500/- p.m.
 - Salary of garage ₹ 2,000/- p.m.
 - Rent of garage ₹ 1,000/- p.m.
 - Drivers salary (per taxi) ₹ 400 pm.
 - Road Tax and Repairs per taxi ₹ 2,160 p.a.
 - Insurance premium @ 4% of cost P.a.

The life of a taxi is 3,00,000 km. and at the end of which it is estimated to be sold at ₹ 15,000. A taxi runs on an average 4,000 Km. per month of which 20% it runs empty. Petrol consumption 9 Km. per liter of petrol costing ₹ 6.30 per liter. Oil and other sundry expenses amount to ₹ 10 per 100 Km.

Calculate the effective cost of running a taxi per kilometer. If the hire charge is ₹ 1.80 per Kilometer, find out the profit that Mr. Sohan may expect to make in the first year of operation. 12

- (b) How do you treat profit on incomplete Contracts? 5
5. (a) What are the objectives of Cost Audit? 8
- (b) What are the qualifications and disqualifications of a Cost Auditor? 9

Section C

(Economics for managerial decision making)

Answer any two from the following

Each question carries 12 marks

1. (a) What is the elasticity of demand and state various types of price elasticity of demand? 8

(b)

Year	2010	2011	2012	2013	2014
Sales (₹ Lakhs)	100	150	100	160	200

Using the above information find the sales for 2015 by applying regression equation $y = a + bx$. 4

2. (a) What are the factors involved in demand forecasting? 6

(b) Prove that the slope of average cost curve is $\frac{1}{x}[MC - AC]$ 6

3. (a) The cost function 'c' of a firm = $\frac{1}{3}x^3 - x^2 + 5x + 3$, find the level at which the marginal cost and the average variable cost attain their respective minimum. 6

(b) Find whether the following commodities are complementary or competitive (or) substitutes, where P_1 , P_2 and X_1 , X_2 are prices and quantities respectively of the two commodities. 6

i) $x_1 = P_1^{-1.7} P_2^{0.8}$;

ii) $x_1 = \frac{4}{P_1^2 \cdot P_2}$; $x_2 = \frac{16}{P_1 \cdot P_2^2}$

$x_2 = P_1^{1.5} P_2^{-2}$