

P10_Practice Test Paper_Syl12_Dec13_Set 3

Paper 10 : Cost and Management Accountancy

Full Marks: 100

Time : 3 hours

1. Answer all questions :

(i) The budgeted working conditions for a cost centre are as follows :

Normal working per week	42 hours
Number of machines	14
Normal weekly loss of hours on maintenance	5 hours per machine
Number of weeks works per year	48
Estimated annual overheads	₹ 1,24,320

Actual result in respect of a 4 week period are :

Overhead incurred	₹ 10,200
Machine hours produced	2,000

On the basis of the above information you are required to calculate :

- (i) The machine hour rate
(ii) The amount of under or over-absorption of overhead (2+2=4)

(ii) A factory transferred out 8,800 completed units during May 2013. Opening Stock was 400 units 75% completed, closing stock was 800 units 50% completed. Assuming FIFO method, what is the equivalent production in May 2013 ? (2)

(iii) Sales for two consecutive months of a company are ₹ 3,80,000 and ₹ 4,20,000. The company's net profit for these months amounted to ₹ 24,000 and ₹ 40,000 respectively. There is no change in P/V ratio or fixed costs. What is the P/V ratio? (2)

(iv) The budgeted annual sales of a firm is ₹ 80 lakhs and 25% of the same is cash sale. If the average amount of debtors of the company is ₹ 5 lakhs, what is the average collection period ? (2)

(v) What are the principal functions of the Cost Auditor in the area of work-in-Progress? (2)

(vi) What should the Cost Auditor focus on, in the area of Capacity Utilisation? (2)

(vii) The Law of Demand assuming other things to remain constant, establishes the relationship between (1)

- (i) Income of the consumer and the quantity of a good demanded by him.
(ii) Price of a good and the quantity demanded.
(iii) Price of a good and the demand for its substitute.
(iv) Quantity demanded of a good and the relative prices of its complimentary goods

(viii) In case of short run production function Qty of fixed input remains constant and (1)

- (i) Qty of either one or two variable inputs change.
(ii) Qty of one or two variable inputs are kept constant as Qty of fixed inputs change.
(iii) The Qty of both fixed as well as variable inputs remains constant.
(iv) The Qty of both variable and fixed input change.

(ix) A firm faces the demand curve $q = 200 - 100p$. If the objective of the firm is to maximize total revenue, what is the output level. (4)

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Section A – Answer any two questions from this section

2. (a) P, Q, R & S are the four types of products that appear in the price-list of a company with a note that a particular item or items may not be available on demand. The demand for the products is more than what the company can supply and non-supply of any of them will have no effect on the demand for the rest.

For the calendar year 2013, the company has made the following tentative budget that will use up all the available supplies of materials and labour in that year.

A linear programming was made by the company's accountant who stated that the opportunity costs or the shadow prices came to ₹ 2.50 per labour hour and ₹ 16.25 per kg. of material. He also suggested the product-mix which has since been forgotten. The accountant has left the company. The company now asks you as their Management Consultant to give your opinion about the budgeted program.

Data from tentative budget for 2013 :

Products	P	Q	R	S
Production/ Sales Units)	1000	1200	1600	800
Selling price per unit (₹)	100	130	120	150
Variable cost per unit (₹)	60	80	50	70
Labour hours per unit	3	4	2	5
Material usage per unit (kg)	2	3	4	5

(i) Determine the optimal sales mix for the company.

(ii) What difference the sales mix in (i) will make from that in the tentative budget in respect of contribution? (6+4=10)

(b) A product goes through three processes from a single input material. At the end of process I, an intermediate A, which cannot be further processed, also emerges. At the end of Process II, another intermediate product, B, also emerges, which cannot be processed further. The main product results at the end of Process III. The prices of these products have been frozen by the Government, subject to escalation only for raw material price and labour rate variations. During a period, while the price control was in force, the material cost had gone up by ₹ 15 per kg. and the labour rates increased by Re. 0.80 per labour hour. Given the following information, on inputs and related outputs, you are required to determine the amount of claim for price escalation, for each of the intermediary products A and B and the main product and the total claim – (6+4=10)

Process	Input (kg.)	Output (kg.)	Labour hours
Process I	2,000	1,600	16,000
Process II	1,440	1,200	18,000
Process III	880	800	16,000

3. A company manufactures several products of varying levels of designs and models. It uses a single overhead recovery rate based on direct labour hours. The overheads incurred by the company in the first half of the year are as under : ₹

Machine operation expenses	10,12,500
Machine maintenance expenses	1,87,500
Salaries of technical staff	6,37,500
Wages and salaries of stores staff	2,62,500

During this period, the company introduced activity based costing system and the following significant activities were identified :

- Receiving materials and components

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- Set up machines for production runs
- Quality inspection

It is also determined that :

- The machine operation and machine maintenance expenses should be apportioned between stores and production activity in 20:80 ratio.
- The technical staff salaries should be apportioned between machine maintenance, set up and quality inspection in 30:40:30 ratio.

The consumption of activities during the period under review are as under :

- Direct labour hours worked
- Direct wage rate ₹ 6 per hour
- Production set-ups
- Material and component consignments received from suppliers
- Number of quality inspections carried out

The data relating to two products manufactured by the company during the period are as under :

	Products	
	P (₹)	Q (₹)
Direct material costs	6,000	4,000
Direct labour hours	960	100
Direct material consignments received	48	52
Production runs	36	24
Number of quality inspection done	30	10
Quantity produced (units)	15,000	5,000

A potential customer has approached the company for the supply of 24,000 units of a component K to be delivered in lots of 3,000 units per quarter. The job will involve an initial design cost of ₹ 60,000 and the manufacture will involve the following per quarter:

	₹
Direct material costs	12,000
Direct labour hours	300
Production runs	6
Inspection	24
Number of consignments of direct materials to be received	20

The company desires a mark up of 25% on cost.

Required:

- (i) Calculate the cost of products P & Q based on the existing system of single overhead recovery rate.
- (ii) Determine the cost of products P and Q using activity based costing system.
- (iii) Compute the sales value per quarter of component K using activity based costing system. (8+8+4=20)

4. (a) A large company is organized into several manufacturing divisions. The policy of the company is to allow the Divisional Managers to choose their sources of supply and when buying from or selling to sister divisions, to negotiate the prices just as they will for outside purchases or sales.

Division X buys all of its requirements of raw materials R from Division Y. The full manufacturing cost of R for Division Y is ₹ 88 per kg. at normal volume. Till recently Division Y was willing to supply R to Division X at a transfer price of ₹ 80 per kg. The incremental cost of R for Division Y is ₹ 76 per kg. since Division Y is now operating at its full capacity, it is unable to meet the outside customers' demand for R at its market price of ₹ 100 per kg. Division Y, therefore, threatened to cut off supplies to Division X unless the latter agrees to pay the market price for R.

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Division X is resisting the pressure because its budget based on the consumption of 1,00,000 kgs. per month at a price of ₹ 80 per kg, is expected to yield a profit of ₹ 25,00,000 per month and so a price increase to ₹ 100 per kg. will bring the Division X close to break-even point.

Division X has even found an outside source for a substitute material at a price of ₹ 95 per kg. Although the substitute material is lightly different from R, it would meet the needs of Division X. Alternatively, Division X is prepared to pay Division Y even the manufacturing cost of ₹ 88 per kg.

Required :

- (i) Using each of the transfer price of ₹ 80, ₹ 88, ₹ 95 and ₹ 100 show with supporting calculations, the financial results as projected by the
 - I. Manager of Division X
 - II. Manager of Division Y
 - III. Company
- (ii) Comment on the effect of each transfer price on the performance of the Managers of Division X and Division Y.
- (iii) If you were to make a decision in the matter without regard to the views of the Divisional Managers where should Division X obtain its raw materials from and at what price.

(8+2+2=12)

(b) Trident Ltd. is engaged in marketing of wide range of consumer goods. A,B,C and D are the zonal sales officers for four zones. The company fixes annual sales target for them individually.

You are furnished with the following :

- (i) The standard costs of sales target is respect of A,B,C and D are ₹ 5,00,000, ₹ 3,75,000, ₹ 4,00,000 and ₹ 4,25,000 respectively.
- (ii) A,B, C and D respectively earned ₹ 29,900, ₹ 23,500, ₹ 24,500 and ₹ 25,800 as commission at 5% on actual sales effected by them during the previous year.
- (iii) The relevant variances as computed by a qualified cost accountant are as follows :

Particulars	A	B	C	D
Sales price variance	4,000 (A)	6,000 (A)	5,000 (A)	2,000(A)
Sales volume variance	6,000 (A)	26,000 (A)	15,000 (F)	8,000 (F)
Sales margin mix variance	14,000 (A)	8,000 (F)	17,000 (F)	3,000 (A)

(A) = Adverse variance and (F) = Favourable variance

You are required to :

- (i) Compute the amount of sales target fixed and the actual amount of contribution earned in case of each of the zonal sales officer.
- (ii) Evaluate the overall performance of these zonal sales officers taking three relevant base factors and then recommend whose performance is the best. (4+4=8)

Section B – Answer any one question from this section

5. (a) Your Firm has been appointed as Auditor of ABC Co. The Company has also appointed a Cost Auditor and therefore, the Management had requested your firm not to review Cost Records. Comment (3)

(b) What are the provisions of exemption from Cost Audit ? (6)

(c) Write short note on –True and Fair Cost of Production. (4)

(d) Variance Accounting is also part of a system of Cost Records. Explain (3)

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6. (a) For what purposes the Cost Auditor refers to Financial Records while conducting the Cost Audit of an entity ? (4)

(b) "It is not possible to merge Cost Audit with Financial Audit to have a Composite Audit." Discuss. (8)

(c) Sufficient details should be available in Cost Records, on Packing Materials. Comment. (4)

Section C – Answer any two from this section

7. (a) The market demand for 3 individuals x, y, & z is given by $p = 100 - 2qx$, $p = 50 - \frac{1}{2}qy$, $p = 50 - \frac{1}{4}qz$

(i) Estimate the equilibrium price & quantity if market supply is $q_s = 50 + 1.5p$.

(ii) The amounts purchased by each buyer.

(iii) At $p = 30$, estimate ed for each buyer. (2+2+2=6)

(b) If $C = q^2 + 5q + 36$, show that a minimum AC, $AC = MC$. (2)

(c) What is Demand ? (4)

8. (a) The price elasticity of demand suitcases is -2.5 and firm is able to sell 12,000 per year at ₹ 700/each.

(i) If it wants to sell 15,000 per year, by how much should it lower the price?

(ii) What will be the change in total revenue? (2+2=4)

(b) The market supply and the demand equations for wrist watches are $q_s = 600 + 2p$ and $q_d = 1600 - 3p$.

If the market is competitive, and we have $TC = 50,000 + q^2 - 200q$, calculate

(i) q_0 and π_0

(ii) Is the industry in equilibrium? (3+1=4)

(c) What are the criteria of a good forecasting method? (4)

9. (a) What are the exceptions to the law of demand ? Explain with example. (6)

(b) What are factors influencing price of a product ? (6)