Paper – 10: Cost & Management Accountancy

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

This paper contains 4 questions. 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 all questions **[2x10=20]**

(a) State Equivalent Unit.

(b) ANKIT LTD. operates a throughput accounting system. The details of product B-1 per unit are as under:

Selling Price	₹30
Material Cost	₹12
Conversion Cost	₹15

Time on bottleneck resources 6 minutes
Calculate the Return per hour for Product B-1

(c) A firm engaged in the profession of rendering software services provides three different kinds of services to its clients. The following are relating to these services:

Types of services	A	B	C
	₹/Job	₹/Job	₹/Job
Annual fee	3,000	2,400	1,800
Annual variable cost	1,350	800	810
Annual fixed costs	600	320	225

The total annual fixed costs are budgeted at ₹5,74,200 and none of these costs are specific to any type of service provided by the firm.
The firm has estimated the number of service contracts to be sold in the next year in the proportion of 20%, 30% and 50% respectively for the three types of services namely A, B and C.
What will be the break-even of the firm?

(d) The standard set of material consumption was 100kg. @ ₹2.25 per kg.
In a cost period:
Opening stock was 100kg.@ ₹2.25 per kg.
Purchase made 500kg. @₹2.15 per kg.
Consumption 110 kg.
Calculate usage variance and price variance.

(e) The following information relates to budgeted operations of Division A of a manufacturing Company.

Particulars	Amount in ₹
Sales-50,000 units @₹8	4,00,000
Less: Variable costs @₹6 per unit	3,00,000
Contribution margin	1,00,000
Less: Fixed Costs	75,000
Divisional Profits	25,000

The amount of divisional investment is ₹1,50,000 and the minimum desired rate of return on the investment is the cost of capital of 10%.

Calculate

I. Divisional expected ROI and

II. Divisional expected RI

(f) How will you treat Cenvat availed as credit on purchased raw materials in the Cost Accounting Records?

(g) A company manufactures various types of the product. As a Cost Auditor would you accept the absorption of "Selling and Distribution" expenses as a percentage on Sales Values?

(h) What are the essential conditions to obtain the equilibrium position of the industry under perfect competition?

(i) The Revenue function of a firm given by $R = (1{,}800 - 3x)\frac{x}{2}$, find the firm's marginal revenue function.

(j) State Average Fixed Cost.

2. Answer any two questions. **[2x20=40]**

(a)

(i) A Club runs a library for its members. As part of club policy, an annual subsidy of up to ₹ 5 per member including cost of books may be given from the general funds of the club. The management of the club has provided the following figures for its library department.

Number of Club members	5,000
Number of Library members	1,000
Library fee per member per month	₹100
Fine for late return of books	₹ 1 per book per day
Average No. of books returned late per month	500
Average No. of days each book is returned late	5 days
Number of available old books	50,000 books
Cost of new books	₹ 300 per book
Number of books purchased per year	1,200 books
Cost of maintenance per old book per year	₹10

Staff details	No.	Per Employee
		Salary per month (₹)
Librarian	01	10,000
Assistant Librarian	03	7,000
Clerk	01	4,000

You are required to calculate:

I. The cost of maintaining the library per year excluding the cost of new books;

II. The cost incurred per member per month on the library excluding cost of new books; and

III. The net income from the library per year.

If the club follows a policy that all new books must be purchased out of library revenue, what is the maximum number of books that can be purchased per year and how many excess books are being purchased by the library per year?
Also, comment on the subsidy policy of the club. [2+2+2+2+2=10]

(ii) Raj Ltd produces and sells a single budget. Sales budget for calendar year 2013 by quarters is as under:

Quarters	I	II	III	IV
No. of units to be sold	20,000	22,000	25,000	27,000

The year is expected to open with an inventory of 6,000 units of finished products and close with inventory of 8,000 units. Production is customarily scheduled to provide for 70% of the current quarter's sales demand plus 30% of the following quarter demand. The budgeted selling price per unit is ₹ 40.
The standard cost details for one unit of the product are as follows:
Variable Cost ₹ 34.50 per unit.
Fixed Overheads 2 hours 30 minutes @ ₹ 2 per hour based on a bused on a budgeted production volume of 1,10,000 direct labour hours for the year. Fixed overheads are evenly distributed through-out the year.
You are required to:

I. Prepare Quarterly Production Budget for the year.
II. Calculate the break-even point. [4+2]

(iii) Enumerate the factors which cause difference in profits as shown in Financial Accounts and Cost Accounts. [4]

(b)
(i) GREEN ENVIRON LTD. has two divisions—M and N. Division-M manufactures product A-15 which it sells in outside market as well as to Division-N which processes it to manufacture Z-25. The Manager of Division-N has expressed the opinion that transfer price is too high. The two Divisional Managers are about to enter into discussions to resolve the conflict and Manager of Division-M to supply him with some information prior to discussions.
Division-M has been selling 50,000 units to outsiders and 10,000 units to Division-N, all at ₹25 per unit. It is not anticipated that these demand will change. The variable cost is ₹15 per unit and the fixed costs are ₹3 lakhs. Divisional investment in assets is ₹12 lakhs.
The Manager of Division-M anticipates that Division-N will want a transfer price of ₹22. If he does not sell to Division-N, ₹40,000 of fixed costs and ₹2,00,000 of assets can be avoided. The Manager of Division-M would have no control over the proceeds from the sale of the assets and is judged primarily on his rate of return.
Required:

I. Should the Manager of Division-M transfer its products at ₹22 to Division-N?
II. What is the lowest price that the Division-M should accept? [7+2=9]

(ii) What are the steps that need to be undertaken for making reporting of variances more effective? Name some variance reporting ratios. [5+1]

(iii) Pass the Journal entries for the following transactions in a double entry cost accounting system:

Particulars	₹
Issue of material:	
Direct	55,000
Indirect	15,000
Allocation of wages and salaries:	
Direct	20,000
Indirect	4,000
Overheads absorbed in jobs:	
Factory	15,000
Administration	5,000
Selling	3,000
Under/Over absorbed overheads:	
Factory (Over)	2,000
Admn. (Under)	1,000

[5]

(c)

(i) Relevant data relating to a Company are:

	Products			
	A	B	C	Total
Production and sales (Units)	60,000	40,000	16,000	
Raw material usage in units	10	10	22	
Raw material costs (₹)	45	40	22	24,76,000
Direct labour hours	2.5	4	2	3,42,000
Machine hours	2.5	2	4	2,94,000
Direct Labour Costs (₹)	16	24	12	
No. of production runs	6	14	40	60
No. of deliveries	18	6	40	64
No. of receipts	60	140	880	1,080
No. of production orders	30	20	50	100

Overheads:	₹
Setup	60,000
Machines	15,20,000
Receiving	8,70,000
Packing	5,00,000
Engineering	7,46,000

The Company operates a JIT inventory policy and receives each component once per production run.

Required:

I. Compute the product cost based on direct labour-hour recovery rate of overheads.

II. Compute the product cost using activity based costing. [5+2]

(ii) A review, made by the top management of THAKAR LTD. which makes only one product, of the result of first quarter of the year revealed the following:

Sales in units	10,000
Loss in ₹	10,000
Fixed cost (for the year ₹1,20,000) in ₹	30,000

Variable cost per unit in ₹	8

The Finance Manager who feels perturbed suggests that the company should at least break even in the second quarter with a drive for increased sales. Towards this, the company should introduce a better packing which will increase the cost by ₹0.50 per unit.
The Sales Manager has an alternate proposal. For the second quarter additional sales promotion expenses can be increased to the extent of ₹5,000 and a profit of ₹5,000 can be aimed at for the period with increased sales.
The Production Manager feels otherwise. To improve the demand, the selling price per unit has to be reduced by 3 per cent. As a result the sales volume can be increased to attain a profit level of ₹4,000 for the quarter.
The Managing Director asks you as a Cost Accountant to evaluate these three proposals and calculate the additional Sales Volume that would be required in each case, in order to help him take a decision. [2+8=10]

(iii) What are the Pre-requisites for Installation of a Uniform Costing System? [3]

3. Answer any two questions. [2x8=16]

(a)
(i) Under what conditions will the appointment of Cost Auditor for conducting Cost Audit be appointed in firm's name? Who will authenticate such reports and how? [3+1=4]

(ii) Write short note on –True and Fair Cost of Production. [4]

(b)
(i) What are the principal functions of the Cost Auditor in the area of work-in-Progress? [2]

(ii) Enumerate the duties to be performed by a Cost Auditor. [6]

(c)
(i) For what purposes the Cost Auditor refers to Financial Records while conducting the Cost Audit of an entity? [5]

(ii) 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. Explain. [3]

4. Answer any three questions. [3x8=24]

(a)
(i) Explain the term Demand. [4]

(ii) A radio manufacturer produces 'x' sets per week at total cost of ₹ $x^2 + 78x + 2{,}000$.He is a monopolist and the demand function for his product is $x = (600 - p) / 8$, when the price is 'p' per set shows that maximum net revenue is obtained when 29 sets are produced per week what is the monopoly price. [4]

(b) What are the criteria of a good forecasting method? [8]

(c)

(i) AJANTA FOOTWEARS LTD. intends to introduce in the market two products of the following characteristics:

I. 'Comfort walk'-shoe for elderly people—considered quite new in the market with a high degree of consumer acceptability.

II. 'Glamour' sandals (with coloured laces crossing) for young LADIES—considered to be one which is already served by other well known brands. State suitable pricing strategies, together with your valid arguments, for each of them separately. [2+2]

(ii) A firm has revenue function given by R=10Q where R=Gross Revenue and Q=Number of Units Sold, Production Cost function is given by C = 20000+ 50(Q / 800)2

Find:

I. the total Profit function, and

II. The number of Units (Q) to be sold to get the maximum Profit. [1+3]

(d) List out the factors influencing Elasticity of Demand? [8]