Paper 10- Cost & Management Accountancy

Paper 10- Cost & Management Accountancy

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

Section A

1. **Answer Question No.1 which is compulsory carrying 25 Marks**

(a) Answer the following   **[5 x 2 = 10]**

(i) Product Z has a P/V ratio of 28%. Fixed operating costs directly attributable to Product Z during the 2nd Quarter of the financial year will be ₹2,80,000. Calculate the Sales Revenue required to achieve a quarterly profit of ₹ 70,000.

(ii) Following details relating to product X during the month of April are available:
Standard cost per unit of X: Materials: 50kg at ₹40/kg.

Actual production: 100 units.   Material Price Variance = ₹9,800 (Adverse)

Actual Materials cost: ₹42/kg.   Material Usage variance = ₹4,000 (Favourable)

Calculate the actual quantity of materials used during the month of April.

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

(iv) BEEU LTD. operates throughput accounting system. The details of Product-X per unit are as under:

Selling price	₹50
Material cost	₹20
Conversion cost	₹15
Time on Bottleneck resources	10 minutes

What would be the return per hour for Product-X?

(v) The following data are given for an industry using batch costing.
Annual consumption of components – 2400 units
Setting up cost per batch – ₹ 100
Manufacturing cost/unit – ₹ 200
Carrying cost/unit – 6% per annum
Calculate the Economic Batch Quantity.

(b) Match the following   **[5 x 1 = 5]**

	Column 'A'		Column 'B'
1.	P/V ratio	**A**	Decision Package
2.	Direct Labour efficiency variance	**B**	Equivalent Production
3.	Zero based budgeting	**C**	Total contribution /Total Sales Value *100
4.	Contract Costing	**D**	Work Certified

5.	Process Costing	E	(Standard hour for actual production minus Actual hours) x Standard Rate

(c) Discuss the applicability of Cost Audit. **[5]**

(d) A company sells two types of products, one is Super and the other is Delux. Super contains 5 units of carton. The Super is sold for ₹ 7 per jar and the Delux is sold for ₹ 4 per carton. chemical A and 2 units of chemical B per jar. Delux contains 3 units of each of chemical A and B per

A customer requires at least 150 units of chemical A and at least 120 units of chemical B for his business. How many of each type of the products should the customer purchase to minimize the cost while meeting his requirements?

Formulate LPP model for solving the above problem (do not solve it). **[5]**

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

2. (a) Naitik Ltd. provides the following cost data of a product passing through two manufacturing processes: Process A and Process B.

(Amount in ₹)

	Process A	Process B
Input: 8800 units	9,59,200	—
Material	46,500	93,680
Labour Cost	1,45,000	95,000
Electric Power	48,000	32,000
Normal loss	5%	4%
Value of scrap per unit	10	12
Output (units)	8,300	8,000

Other manufacturing expenses are ₹ 1,68,000 to be charged on the basis of labour cost. You are required to prepare the Process Accounts, Abnormal Loss Account and Abnormal Gain Account. **[4+4+4]**

(b) List out the limitation of Inter-firm Comparison. **[5]**

3. (a) VIBRANT LTD. a manufacturing Company, produces one main Product A and two by-products M and N.
For the month of May, 2016, following details are available:
Total Cost upto separation point ₹2,20,000.

Product/By-Product	A	M	N
Cost after separation		₹ 35,000	₹ 24,000
No. of units produced	4,000	1,800	3,000
Selling price per unit	₹100	₹40	?30
Estimated net profit as percentage to sales value		20%	30%

Estimated selling expenses as percentage to sales value	20%	15%	15%

There is no beginning or closing inventories.

Required:

Prepare statement showing:

(i) Allocation of joint cost; and

(ii) Product wise and overall profitability of the company for May, 2016. **[5+5=10]**

(b) A contractor has undertaken a construction work at a price of ₹ 5,00,000 and begun the execution of work on 1st January, 2016. The following are the particulars of the contract up to 31st December, 2016.

Particulars	Amount ₹	Particulars	Amount ₹
Machinery	30,000	overheads	8,252
Materials	1,70,698	Materials returned	1,098
Wages	1,48,750	Work certified	3,90,000
direct expenses	6,334	Cash received	3,60,000
Uncertified work	9,000	Materials on 31.12.2015	3,766
Wages outstanding	5,380		
Value of plant on	22,000		

It was decided that the profit made on the contract in the year should be arrived at by deducting the cost of work certified from the total value of the architects certificate, that 1/3 of the profit so arrived at should be regarded as a provision against contingencies and that such provision should be increased by taking to the credit of Profit and Loss Account only such portion of the 2/3rd profit, as the cash received to the work certified. **[7]**

4. (a) A factory is currently working to 40% capacity and produces 10,000 units. At 50% the selling price falls by 3%. At 90% capacity the selling price falls by 5% accompanied by similar fall in prices of raw material. Estimate the profit of the company at 50% and 90% capacity production.

The cost at present per unit is:

Material ₹ 10

Labour ₹ 3

Overheads ₹ 5(60% fixed)

The selling price per unit is ₹ 20/- per unit. **[10]**

(b) Modern Co produces 3 products, A, B and C, details of which are shown below:

	A	B	C
Selling price per unit (₹)	120	110	130
Direct material cost per unit (₹)	60	70	85
Variable overhead (₹)	30	20	15
Maximum demand (units)	30,000	25,000	40,000
Time required on the bottleneck resource (hours per unit)	5	4	3

There are 3,20,000 bottleneck hours available each month.

Required:

Calculate the optimum product mix based on the throughput concept. **[7]**

5. **(a)** The standard labour complement and the actual labour complement engaged in a week for a job are as under:

	Skilled workers	Semi-skilled workers	Unskilled workers
a. Standard no. of workers in the gang	32	12	6
b. Standard wage rate per hour (₹)	3	2	1
c. Actual no. of workers employed in the gang during the week	28	18	4
d. Actual wage rate per hour (₹)	4	3	2

During the 40 hour working week the gang produced 1,800 standard labour hours of work. Calculate

(i) Labour Efficiency Variance

(ii) Mix Variance

(iii) Rate of Wages Variance

(iv) Labour Cost Variance **[8]**

(b) CT Ltd. Provides you the following information:

Production capacity	Costs and sales At 80%	(₹ Lakhs) At 60%
Direct Material	2.00	1.50
Direct Labour	2.00	1.50
Direct Expenses	1.60	1.20
Production overheads	4.00	3.85
Administrative overheads	4.00	3.80
Selling & Distribution overheads	4.00	3.75
Sales	20.00	15.00

Required: Draw up a Flexible Budget at 90% capacity. **[9]**

6. **(a)** Who can be appointed as a Cost Auditor? **[3]**

(b) Under what circumstances will the appointment of Cost Auditor for Conducting Cost Audit be made in firm's name?

Who will authenticate such report and how? **[4+2=6]**

(c) The Companies Act, 2013 has introduced provision regarding rotation of auditors. Is the provision of rotation of auditors applicable to cost auditors also? **[8]**

Section C

(Economics for managerial decision making)
Answer any two from the following
Each question carries 12 marks

7. **(a)** What are the objectives of Fiscal Policy in India? **[5]**

(b) Write a brief note on the "intervention of Government in Indian economy'. **[2]**

(c) What are the different methods of demand forecasting? **[5]**

8. (a) Given below are the figures of milk demand for last seven years:

Year	2009	2010	2011	2012	2013	2014	2015
Milk Demand (in lakh liters)	830	920	1020	1130	1060	1240	1410

You are required to determine the trend values by using least square method and estimate the demand of milk for the year 2017. **[8]**

(b) Briefly explain the 'Penetration Price Policy'. **[4]**

9. (a) What are the differences between ISO-quant curve and indifference curve? **[4]**

(b) The total cost function of Krish Ltd. is $C = x^3/3 - 5x^2 + 27x + 10$, where C is the total cost (₹) and x is the output in units. A tax @ ₹ 3 per unit of output is imposed and producer adds it to his cost. The demand function is given by $P = 2055 - 5X$, where P (₹) is the price per unit of output. Find the profit maximizing output and the price at that level of output. **[4]**

(c) Z Ltd. Sells output in a perfectly competitive market. The average variable cost function is (₹) $AVC = 300 - 40Q + 2Q^2$ where, Q is the quantity in units.

Z Ltd. has an obligation to pay ₹ 500 irrespective of the output produced. What is the price below which Z Ltd. has to shut down its operation in the short run? **[4]**