Paper – 8: Cost & Management Accounting

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

Question No 1 is Compulsory. Answers any five Questions from the rest.
Working Notes should form part of the answer.

Question.1

(a) Match the statement in Column I with appropriate statement in Column II [1x5]

Column I	Column II
(i) Inventory Management	(A) Merit rating
(ii) Basis for remuneration employees	(B) By Product Cost Accounting
(iii) Pareto distribution	(C) Production Order
(iv) Reverse Cost Method	(D) JIT System
(v) Material Requisition	(E) Decision Making

(b) State whether the following statements are TRUE or FALSE: [1x5]

(i) Transfer pricing has significance for the purpose of measurement of divisional performance.

(ii) ABC analysis is made on the basis of unit prices of materials.

(iii) Fixed costs vary with volume rather than time.

(iv) A Production Budget is prepared before Sales Budget.

(v) An automobile service unit uses batch costing.

(c) Fill in the blanks: [1x5]

(i) A cost which does not involve any cash outflow is called __________.

(ii) In __________ contract with escalation clause, the contractor can claim for increase in prices of inputs to the agreed extent.

(iii) An increase in sales price__________ the BEP.

(iv) Margin of safety is________.

(v) Cost sheet is a document which provides for assembly of the detailed cost of a ________.

(d) Calculate the following [2x5=10]

(i) Time allowed for a job is 45 hours; a worker takes 40 hours to complete the job. Time rate per hour is ₹15. Compute the total earnings of the worker.

(ii) Deerbound Manufacturing transferred ₹ 30,00,000 of raw materials into production during the most recent year. Direct labour and factory overhead for the period totaled ₹ 20,00,000. Beginning work in process was ₹ 6,70,000 and ending work in process was ₹ 8,50,000. Finished goods inventory decreased by ₹ 50,000. If gross profit was ₹ 16,00,000, how much was sales for the period?

(iii) A firm requires 16,000 nos. of certain component, which it buys at ₹60 each. The cost of placing an order and following it up is ₹120 and the annual storage charges work out to 10% of the cost of the item. To get maximum benefit the firm should place order for how many units at a time?

(iv) Consider the following particulars for a month :
Budgeted fixed production overhead cost - ₹ 1,10,000
Budgeted production - 5,500 units
The fixed overhead cost was under absorbed by ₹ 12,000 and the fixed production overhead expenditure variance was ₹ 2,500 (Adverse).
What is the number of units produced during the month was?

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

Question.2

(a) What is Inter Firm Comparison? Enumerate some of its advantages. [1+5=6]

(b) A factory has a key resource (bottleneck) of Facility A which is available for 31,300 minutes per week. Budgeted factory costs and data on two products, A and B, are shown below:

Product	Selling price/Units	Material cost/Unit	Time in Facility A
A	₹40	₹20.00	5 minutes
B	₹40	₹17.50	10 minutes

Budgeted factory cost per week:

	₹
Direct labour	25,000
Indirect labour	12,500
Power	1,750
Depreciation	22,500
Space Costs	8,000
Engineering	3,500
Administration	5,000

Actual production during the last week is 4,750 units of product A and 650 units of product B. Actual factory cost was ₹78,250.

Calculate:

(i) Total factory costs (TFC)
(ii) Cost per factory minute
(iii) Return per factory minute for both products
(iv) TA ratios for both product
(v) Throughput cost per the week
(vi) Efficiency ratio [1.5x6=9]

Question.3

(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 [1.5x6=9]

(b) ABC Ltd. produces three joint products X, Y and Z. The products are processed further. Pre-separation costs are apportioned on the basis of weight of output of each joint product. The following data are provided for month just concluded:
Cost incurred up to separation point is ₹10,000.

	Product X	Product Y	Product Z
Output (in litre)	100	70	80
	₹	₹	₹
Cost incurred after separation point	2,000	1,200	800
Selling price per Litre:			
After further processing	50	80	60
At pre separation point (estimated)	25	70	45

You are required to:
(i) Prepare a statement showing profit or loss made by each product using the present method of apportionment of pre-separation cost, and
(ii) Advice the management whether, on purely financial consideration, the three products are to be processed further. [3+3]

Question.4

(a) An amount of ₹ 19,80,000 was incurred on a contract work upto 31.03.2014. Certificates have been received to date to the value of ₹ 24,00,000 against which ₹ 21,60,000 has been received in cash. The cost of work done but not certified amounted to ₹ 45,000. It is estimated that by spending an additional amount of ₹ 1,20,000 (including provision for contingencies) the work can be completed in all respects in another two months. The agreed contract price of the work is ₹ 25 lakhs. Compute a conservative estimate of the profit to be taken to the profit & Loss Account. Illustrate at least four methods of computing the profit. [8]

(b) Zenith Transport Company has given a route of 40 kilometers long to run bus. The bus costs the company a sum of ₹ 1,00,000. It has been insured at 3% p.a. and the annual tax will amount to ₹ 2,000. Garage rent is ₹ 200 per month. Annul repairs will be ₹ 2,000 and the bus is likely to last for 5 year. The driver's salary will be ₹ 300 per month and the conductor's salary will be ₹ 200 per month in addition to 10% of takings as commission (to be shared by the driver and the conductor equally.)
Cost of stationary will be ₹ 100 per month. Manager-cum-accountant's salary is ₹ 700 per month. Petrol and oil will be ₹ 50 per 100 kilometer. The bus will make 3 up and down trips carrying on an average 40 passengers on each trip.
Assuming 15% profit on takings, calculate the bus fare to be charged from each passenger. The bus will run an average 25 days in a month. [7]

Question.5

(a) ABC Ltd., a manufacturing company having a capacity of 60,000 units, has prepared a following Cost Sheet:

Particulars	₹
Direct material (per unit)	12.50

Direct wages (per unit)	5.00
Semi-variable cost	30,000 fixed plus 0.50 per unit
Factory overhead (per unit)	10.00 (50% fixed)
Selling and Administration overhead (per unit)	8.00 (25% variable)
Selling price (per unit)	40.00

During the last year the sales volume achieved by the company was 50,000 units. The Company has launched an expansion program as under –

(i) Capacity will be increased to 1,00,000 units.
(ii) Cost of investment on expansion is ₹ 5 lakhs, which is proposed to be financed through Financial Institution at 12% p.a.
(iii) Depreciation rate of new investment is 10% based on Straight-Line method.
(iv) Additional fixed overhead will be ₹ 2 lakhs up to 80,000 units, and will increase by ₹ 80,000 more beyond 80,000 units

After the expansion, the company has two alternatives for operating the expanded plan as under –

(i) Sales can be increased upto 80,000 units by spending ₹ 50,000 on special advertisement campaign to explore new market.
(ii) Sales can be increased upto 1,00,000 units subject to the following –
- **(a)** Reduction of selling price by ₹ 4 per unit on all the units sold.
- **(b)** The direct material cost would go down by 4% due to discount on bulk buying
- **(c)** Increasing the variable selling and administration expenses by 4%.

Required:

(i) Construct a Flexible Budget at the level 50,000 units, 80,000 units and 1,00,000 units of production and select the best profitable level of operation.
(ii) Calculate Break Even Point both before and after expansion. [8+4]

(b) State the scope of Uniform Costing. [3]

Question.6

(a) What are the limitations of ZBB? [4]

(b) The New Enterprises Ltd. has Production Depts. A, B and C and two Service Depts. D and E. The following figures are extracted from the records of the company.

Rent and Rates	₹5,000
General Lighting	600
Indirect Wages	1,500
Power	1,500
Depreciation of Machinery	10,000
Sundries	10,000

The following further details are available:

	Total	A	B	C	D	E
Floor Space (Sq. ft.)	10,000	2,000	2,500	3,000	2,000	500
Light Points	60	10	15	20	10	5
Direct Wages (₹)	10,000	3,000	2,000	3,000	1,500	500
H.P. of Machines	150	60	30	50	10	-
Value of Machinery (₹)	2,50,000	60,000	80,000	1,00,000	5,000	5,000
Working Hours	-	6,226	4,028	4,066	-	-

The expenses of D and E are allocated as following:

	A	B	C	D	E

D	20%	30%	40%	-	10%
E	40%	20%	30%	10%	-

What is the total cost of an article if its raw material cost is ₹ 50, labour cost ₹ 30, and it passes through departments A, B and C for 4, 5 and 3 hours respectively. [8]

(c) Calculation of a basic EOQ depends on certain assumptions. "List down these assumptions. [3]

Question.7

(a) SK Enterprise manufactures a special product "ZE". The following particulars were collected for the year 2013:

Annual consumption	12,000 units (360 days)
Cost per unit	₹ 1
Ordering cost	₹ 12 per order
Inventory carrying cost	24%
Normal lead time	15 days
Safety stock	30 days consumption

Required:

(i) Re-order quantity

(ii) Re-order level

(iii) What should be the inventory level (ideally) immediately before the material order is received? [2+1+1]

(b) Explain the treatment of overtime premium in cost accounting. Suggest steps for controlling overtime. [2+2]

(c) Calculate the earnings of A and B from the following particulars for a month and allocate the labour cost to each job X, Y and Z:

		A	B
(i)	Basic Wages	₹ 100	160
(ii)	Dearness Allowance	50%	50%
(iii)	Contribution to Provident Fund (on basic wages)	8%	8%
(iv)	Contribution to Employees' State Insurance (on basic wages)	2%	2%
(v)	Overtime Hours	10	

The Normal working hours for the month are 200. Overtime is paid at double the total of normal wages and dearness allowance. Employer's contribution to State Insurance and Provident Fund are at equal rates and employees' contributions. The two workers were employed on jobs X, Y and Z in the following proportions:

	Jobs X	Jobs Y	Jobs Z
Workers A	40%	30%	30%
Worker B	50%	20%	30%

Overtime was done on job Y. [4+3]

Question.8. Write a short note on any three of the following: [3× 5 = 15]

(a) Importance of Time and Motion study

(b) Scope of Cost Accountancy

(c) The advantages of time rate remuneration plans

(d) Classification of cost based on function

(e) Causes of Labour Turnover