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 the most appropriate statement in Column II: **[1×5 =5]**

Column I	Column II
(i) Value analysis	**(a)** Value of benefit lost by choosing alternative course of action
(ii) Pareto distribution	**(b)** Technique of cost reduction
(iii) Opportunity cost	**(c)** Reverse cost method
(iv) By-product cost accounting	**(d)** Single output costing
(v) Brick making	**(e)** ABC analysis

(b) Fill in the blanks:

(i) In ……contract with escalation clause, the contractor can claim for increase in prices of inputs to the agreed extent.
(ii) …… arises when the actual process loss is less than the normal predetermined process loss.
(iii) …… Costing reduce the possibility of under pricing.
(iv) No distinction is made between direct and indirect materials in …….. Costing.
(v) …….. of overheads occur when absorbed overheads exceed actual overheads.

(c) State whether the following statements are TRUE or FALSE: **[1×5 =5]**

(i) The cost of drawings, design and layout is an example of production cost.
(ii) Cost accounting is a government reporting system for an organistaion.
(iii) Internal instruction to buy the specified quantity and description is called stores requisition note.
(iv) The stock turnover ratio indicates the slow moving stocks.
(v) An automobile service unit uses batch costing.

(d) In the following cases, You are required to indicate the correct answer and give workings: **[2x5 =10]**

(i) Selling price of a product is ₹5 per unit, variable cost is ₹3 per unit and fixed cost is ₹12,000. Calculate the break-even point in unit.

(A) 2,400 units
(B) 4,000 units
(C) 6,000 units
(D) 12,000 units

(ii) Bharat Ltd. is preparing its cash budget for the period. Sales are expected to be ₹ 1,00,000 in April 2014, ₹2,00,000 in May 2014, ₹ 3,00,000 in June 2014 and ₹ 1,00,000 in July 2014. Half of all sales are cash sales, and the other half are on credit. Experience indicates that 70% of the credit sales will be collected in the month following the sale, 20% the month after that, and, 10% in the third month after the sale. Calculate the budgeted collection for the month of July 2014.

(A) ₹75,000
(B) ₹1,00,000
(C) ₹1,30,000
(D) ₹1,80,000

(iii) Calculate the total wages earned by a workman for a working day of 8 hours under Rowan plan:

- Standard production per hour 110 units
- Actual production of the day 1,100 units
- Wages rate per hour ₹ 30

(A) ₹240
(B) ₹288
(C) ₹300
(D) ₹350

(iv) A concern producing a single product estimates the following expenses for a production period.

Particulars	**₹**
Direct Material	68,750
Direct Labour	68,750
Direct Expenses	6,875
Overhead Expenses	2,88,750

Estimate the overhead recovery rate based on prime cost.

(A) 2 times
(B) 2.13 times
(C) 4.5 times
(D) 5 times

(v) XYZ Company fixes the inter-divisional transfer prices for its products on the basis of cost plus an estimated return on investment in its divisions. The relevant portion of the budget for the Division A for the year 2014 -15 is given below.

Particulars	**Amount in ₹**

Fixed Assets	5,00,000
Current Assets (other than debtors)	3,00,000
Debtors	2,00,000
Annual Fixed Cost for the Division	8,00,000
Variable Cost Per unit of product	10
Budgeted Volume of Production per year (units)	4,00,00
Desired Return on Investment	20%

You are required to determine the transfer price for Division A.

(A) ₹12

(B) ₹12.50

(C) ₹10

(D) ₹10.50

Question.2

(a) Singh Limited has received an offer of quantity discount on its order of materials as under:

Price per tone	Tones number
₹ 9,600	Less than 50
₹ 9,360	50 and less than 100
₹ 9,120	100 and less than 200
₹ 8,880	200 and less than 300
₹ 8,640	300 and above

The annual requirement for the material is 500 tonnes. The ordering cost per order is ₹12,500 and the stock holding cost is estimated at 25% of the material cost per annum.

Required

(I) Compute the most economical purchase level.

(II) Compute EOQ if there are no quantity discounts and the price per tonne is ₹10,500.

[5+2=7]

(b) Gross pay ₹12,80,000 (including cost of idle time hours paid to employee ₹85,000); Accommodation provided to employee free of cost [this accommodation is owned by employer, depreciation of accommodation ₹2,00,000, maintenance charges of the accommodation ₹1,00,000, municipal tax paid for this accommodation ₹5,000], Employer's Contribution to P.F. ₹1,00,000 (including a penalty of ₹2,000 for violation of PF rules), Employee's Contribution to P.F. ₹75,000. Compute the Employee cost. [6]

(c) State Explicit costs. [2]

Question.3

(a) A radio manufacturing company finds that while it costs ₹6.25 each to make component X 273 Q, the same is available in the market at ₹5.75 each, with an assurance of continued supply. The breakdown of cost is:

Materials	₹2.75 each
Labour	₹1.75 each
Other Variable Costs	₹0.50 each

Depreciation and other Fixed Cost	₹1.25 each
Total Cost	₹6.25 each

(I) Should you make or buy?

(II) What would be your decision if the supplier offered the component at ₹4.85 each?

[3+2]

(b) A manufacturing concern, engaged in mass production produces standardized electric motors in one of its departments. From the following particulars of a job of 50 motors you are required to value the work-in-progress and finished goods. [5+5]

I. Costs incurred as per job card:

Particulars	₹
Direct Material	75,000
Direct Labour	20,000
Overheads	60,000

II. Selling price per motor: ₹4,500

III. Selling and distribution expenses are at 30% of sales value.

IV. 25 Motors are completed and transferred to finished goods.

V. Completion stage of work-in-progress:

Particulars	
Direct Material	100%
Direct Labour & Overheads	60%

Question.4

(a) P Ltd. has two divisions; S and T. S transfer all its output to T, which finishes the work. Costs and revenues at various levels of capacity are as follows:

Output	S. cost	T Net revenues (i.e. revenue minus costs incurred in T)	Profit
Units	₹	₹	₹
600	600	2,950	2,350
700	700	3,250	2,550
800	840	3,530	2,690
900	1,000	3,780	2,780
1,000	1,200	4,000	2,800
1,100	1,450	4,200	2,750
1,200	1,800	4,350	2,550

Company profits are maximized at ₹2,800 with output of 1,000 units. If P Ltd. wish to select a transfer price in order to establish S and T as profit centres, what transfer price would motivate the managers of S and T together to produce 1,000 units, no more and no less?

P Ltd. wants that the transfer price should be set at ₹2.10 per unit. Comment on this proposal.

[6+(4+1)]

(b) Discuss the treatment of overtime wages in Cost Accounts. [4]

Question.5

(a) A factory incurred the following expenditure during the year 2014:

		₹
Direct material consumed		15,00,000
Manufacturing Wages		10,00,000
Manufacturing overhead:		
Fixed	4,00,000	
Variable	3,50,000	7,50,000
		32,50,000

In the year 2015, following changes are expected in production and cost of production.

(I) Production will increase due to recruitment of 50% more workers in the factory.

(II) Overall efficiency will decline by 10% on account of recruitment of new workers.

(III) There will be an increase of 15% in Fixed overhead and 70% in Variable overhead.

(IV) The cost of direct material will be decreased by 5%.

(V) The company desire to earn a profit of 10% on selling price.

Ascertain the cost of production and selling price. [8]

(b) 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. [2+5]

Question.6

(a) List out the advantages of Cost control. **[5]**

(b) A factory has a key resource (bottleneck) of Facility X which is available for 15,650 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 X
A	₹30	₹15.00	2.5 minutes
B	₹30	₹13.125	5 minutes

Budgeted factory cost per week:

	₹
Direct labour	18,750
Indirect labour	9,375
Power	1,312.5
Depreciation	16,875
Space Costs	6,000
Engineering	2,625
Administration	3,750

Actual production during the last week is 2,375 units of product A and 325 units of product B. Actual factory cost was ₹58,687.5.

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+1+3+2+$1^1/_2$+$1^1/_2$]

Question.7

(a) The share of production and the cost-based fair price computed separately for a common product for each of the four companies in the same industry are as follows:

	A	B	C	D
Share of Production (%)	40	25	20	15
Costs:				
Direct materials (₹ /Unit)	75	90	85	95
Direct Labour (₹ /Unit)	50	60	70	80
Depreciation (₹ /Unit)	150	100	80	50
Other Overheads(₹ /Unit)	150	150	140	120
Total (₹ / Unit)	425	400	375	345
Fair Price (₹ /Unit)	740	615	550	460
Capital employed per Unit:				
(i) Net Fixed Assets(₹ /Unit)	1,500	1,000	800	500
(ii) Working Capital (₹ /Unit)	70	75	75	75
Total (₹ /Unit)	1,570	1,075	875	575

Required:

What should be the uniform price that should be fixed for the common product? [10]

(b) How do you deal with the following in Cost Accounts? [$2^1/_2$+$2^1/_2$]

(i) Fringe benefits

(ii) Data processing cost.

Question.8

Write short note on any three: **[3x5=15]**

(a) The procedure for the valuation of Work-in-process.
(b) The principles to be followed while taking credit for profit on incomplete contracts.
(c) The advantages of integrated accounting.
(d) The different methods of by-product cost accounting.
(e) The advantages of a Balanced Score-card.