INTERMEDIATE EXAMINATION
(SYLLABUS - 2008)
Paper-8: COST & MANAGEMENT ACCOUNTING

SECTION - A
Answer Qs No. 1 (Compulsory) and any 5 from the rest

Question.1

(a) Match the statement in Column 1 with the most appropriate statement in Column 2 :

[1 × 5 = 5]

Column I	Column II
Value analysis	Performance analysis
Performance of public enterprise	Management by exception
Balance score card	Measures divisional performance
Residual income	Technique of cost reduction
Variance analysis	Shows profitability and capacity utilization

(b) Fill in the blanks:

[1 × 5 = 5]

i) Out of pocket cost means_____.
ii) Wages under Halsey Plan and Rowan Plan are exactly equal when time saved is Nil or it is _____% of standard time.
iii) The technical term for charging of overheads to cost units is known as _____
iv) In determining equivalent production, degree of completion for normal process loss is taken as _____.
v) _____determines the priorities in functional budgets.

(c) Choose the correct option.

[1 × 5 = 5]

i) Which of the following is not a relevant cost?
   A. Replacement cost
   B. Sunk cost
   C. Marginal cost
   D. Standard cost

ii) Material mix variance is sub-variance of:
   A. Material cost variance.
   B. Material price variance
   C. Material quantity variance
   D. Material yield variance

iii) The fixed-variable cost classification has a special significance in preparation of :
   A. Flexible Budget
   B. Master Budget
   C. Cash Budget
   D. Capital Budget

iv) Idle capacity of a plant is the difference between:
   A. Maximum capacity and practical capacity
   B. Practical capacity and normal capacity
   C. Practical capacity and capacity based on sales expectancy

D. Maximum capacity and actual capacity.

v) Conversion cost is equal to the total of:
A. Material Cost and direct wages
B. Material Cost and indirect wages
C. Direct wages and factory overhead
D. Material cost and factory overhead

(d) Calculate the following.

[2 × 5 = 10]

i) If the minimum stock level and average stock level of raw material "A" are 4,000 and 9,000 units respectively, find out its reorder quantity.

ii) A chemical is manufactured by combining two standard items of input A(standard price ₹60/kg.) and B (Standard price ₹45/kg.) in the ratio 60 % : 40%. 10% of input is lost during processing. If during a month 1,200 kg of the chemical is produced incurring a total cost of ₹69,600, what would be the total material cost variance?

iii) A Limited has fixed costs of ₹6,00,000 per annum. It manufactures a single product which it sells for ₹200 per unit. Its contribution to sales ratio is 40%. What would be A Limited's break-even in units?

iv) A bus carries 25 passengers daily for 25 days and its mileage per month is 2,000 kms. What is its passenger kms.

v) Sale for two consecutive months, of a company are ₹3,80,000 and ₹4,20,000. The company's net profits for these months amounted to ₹24,000 and ₹40,000 respectively. There is no change in contribution/sales ratio or fixed costs. What would be the contribution/sales ratio of the company?

Question.2

(a) Arun Ltd. follows standard costing system and the following information is available for the month of April, 2014.

i) Actual Production – 1,500 kg.

Materials Consumed			Labour deployed		
Type	Quantity (kgs.)	Rate (₹ per kg.)	Worker	Time worked (hours)	Rate (₹ per hour)
A	550	5.00	P	32	11.00
B	200	6.00	Q	14	9.00
C	350	2.00	R	20	11.00
D	400	5.00	S	10	18.00

ii) Details of standard materials and labour cost based on production of 1,000 kgs. are as under:

Consumption of Materials			Deployment of labour		
Type	Quantity (kgs.)	Rate (₹ per kg.)	Worker	Time (hours)	Rate (₹ per hour)
A	400	4.00	P	20	10.00

B	100	5.00	Q	10	8.00
C	200	2.50	R	15	12.00
D	300	6.00	S	7	20.00

From the above information you are required to compute

(i) Labour rate variances

(ii) Labour efficiency variances

Also prepare a reconciliation statement between actual cost and standard cost for labour.

[3+3+3]

(b) For a particular stationary item, the sales price per unit is ₹ 25. The variable cost per unit for Material & Labour is ₹15. The variable selling cost per unit is ₹4. Factory overheads amounts to ₹5,40,000 and Fixed Administration Cost ₹ 2,70,000. Based on the given data calculate:

i. BEP expressed in amount of sales in rupees.

ii. Number of units that must be sold to earn a profit of ₹ 90,000 per year

iii. How many units must be sold to earn a net income of 15% of sales.

[2+2+2]

Question.3

(a) Anand Co. Ltd., having an adequate supply of labour presents the following data. Kindly analyse and state the area to be allotted for cultivation of various types of vegetables which would result in the maximization of profits. The company contemplates growing Potato, Onion, Gingers and Garlic.

	Potato	Onions	Gingers	Garlic
Selling Price per box (₹)	30	30	60	90
Seasons yield per acre (No of Boxes)	500	150	100	200
	Cost (₹)			
Material per acre	270	105	90	150
Labour for growing per acre	300	225	150	195
Picking & Packing per box	1.50	1.50	3.00	4.50
Transport per Box	3.00	3.00	1.50	4.50

The fixed cost in each season would be:

i) Cultivation & growing - ₹ 56,000

ii) Picking - ₹ 42,000

iii) Transport - ₹ 10,000

iv) Administration - ₹ 84,000

v) Land Revenue - ₹ 18,000

The company also faces the following limitations:

i) The area available is 450 acres, but out of it 300 acres are suitable for growing only Gingers and onions. The balance 150 acres is suitable for growing all four vegetables.

ii) As the products may be hypothecated to banks, hence the area allotted to any vegetable should be demarcated clearly in complete acres and not in fractions of an acre.

iii) The marketing strategy of the company requires compulsory production of all four types of vegetables in a season and the minimum quantity of any type should be 18,000 boxes.

Also calculate the profits that would arise in case the firm follows your advice. [4+4]

(b) Components for an assembly are produced under the control of the production manager. These are assembled and sold under the supervision of the sales manager. The production manager is entitled for a bonus payment for himself at $^1/_8$ and the workers $^7/_{8^{th}}$ of the difference between the notional value and cost of production of the delivered components.

The notional value is assessed at ₹5,18,500 for the components issued to assembly. The sales manager is entitled to a bonus of 2½% of the profits for himself and 12-½ % is distributed among his sales staff. The sales during a period amount to ₹65,000.
From the under mentioned particulars, detail the calculations involved in arriving at the bonus for both managers and the staff. Find also the impact of such bonus as a percentage of sales.

Particulars	₹
Raw materials at the beginning of the period	22,800
Raw materials at the end of the period	16,400
Purchases during the period	2,48,600
Wages – Production	46,200
Wages – Assembly	18,100
Overheads – Production	2,12,500
Overheads – Sales	45,200
Credit for scrap realized pertaining to components	8,700
Work-in-progress of production at the beginning	12,500
Work-in-progress of production at the end	18,200
Completed assemblies at the beginning	36,000
Completed assemblies at the end	24,030
Net realization on assemblies sold	6,50,000

[7]

Question.4

(a) "Best Transport Ltd" operates a fleet of trucks. The records for the truck, 'Joy' reveals the following information for April, 2014:

1. Days maintained	30
2. Days operated	25
3. Days idle	5
4. Total hours operated	300
5. Total kilometers covered	2,500
6. Total Tonnage carried (4 tonne – load per trip, return journey empty)	200

The following further information is made available:

i) Operating Cost for the month:

1. Petrol	₹ 400
2. Oil	₹ 170
3. Grease	₹ 90
4. Wages to driver	₹ 550
5. Wages to helpers	₹ 350

ii) Maintenance Costs for the month:

1. Repairs	₹ 170
2. Overhaul	₹ 60
3. Tyres	₹ 150
4. Garage charges	₹ 100

iii) Fixed costs for the month based on the estimates for the year:

1. Insurance	₹ 50
2. License & Tax	₹ 80

3. Interest	₹ 40
4. Other Overheads	₹ 190

iv) Capital Costs:

1. Cost of acquisition	₹ 54,000
2. Residual Value at the end of 5 years	₹ 36,000

Prepare cost sheet and calculate the following:

i) Cost per day operated
ii) Cost per kilometer [4+1+1]

(b) Ashim Ltd. produces four joint products, A, B, C and D, all of which emerge from the processing of one raw material. The following are the relevant data:

Production for the period:

Joint Products	Number of units	Selling price per unit (₹)
A	500	18.00
B	900	8.00
C	400	4.00
D	200	11.00

The company budgets for a profit of 10% of sales value. The other estimated costs are:

Particulars	Amount (₹)
Carriage Inwards	1,000
Direct Wages	3,000
Manufacturing Overhead	2,000
Administration Overhead	10% of sales value

You are required to:

i) Calculate the maximum price that may be paid for the raw material
ii) Prepare a comprehensive cost statement for each of the products allocating the materials and other costs based upon
a. Number of units b. Sales Value [3+3+3]

Question.5

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

Price per ton	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. [4+2=6]

(b) The cost sheet of a company based on a budget volume of sales of 4,00,000 units per quarter is as under :

	(₹ Per unit)
Direct materials	6.00
Direct wages	3.00
Factory overheads (50% fixed)	8.00
Selling & Adm. Overheads (1/3 variable)	4.50
Selling price	24.00

When the budget was discussed it was felt that the company would be able to achieve only a volume of 3,00,000 units of production and sales per quarter. The company therefore decided that an aggressive sales promotion campaign should be launched to achieve the following improved operations:

Proposal I :
- Sell 5,00,000 units per quarter by spending ₹2,50,000 on advertising.
- The factory fixed costs will increase by ₹4,00,000 per quarter.

Proposal II :
- Sell 6,00,000 units per quarter subject to the following conditions :
- An overall price reduction of ₹2 per unit is allowed on all sales.
- Variable selling and administration costs will increase by 6%.
- Direct material costs will be reduced by 1.5% due to purchase price discounts.
- The fixed factory costs will increase by ₹2,50,000 more.

You are required to prepare a Flexible Budget at 3,00,000, 5,00,000 and 6,00,000 units of output per quarter and calculate the profit at each of the above levels of output

[3+3+3 = 9]

Question.6

(a) Explain briefly the procedure for the valuation of Work-in-process. [3]

(b) A company produces article 'A' from a material which passes through namely M and N. The details relating to a month are as under:

	Process M	Process N
Materials introduced (units)	10,000	
Transferred to next process (units)	9,000	
Work-in-process:		
At the beginning of the month (units)	-------	600
At the end of the month (units)	1,000	400
Expenses:		
Work-in-process at the beginning of the month	-------	9,400
Material introduced at the beginning of the process	1,20,000	------
Labour and Overheads	27,600	18,200

State of completion of work-in-process:
Process M: Closing WIP 20 % complete in respect of labour and overheads.
Process N: Opening WIP 33 1/3% complete in respect of labour and overheads.
Closing WIP: 25% complete in respect of labour and overheads.
The finished output 'A' emerging out of process N is sold at ₹ 20 per unit.
Required:
Prepare Process Cost Accounts for Process M and N (Show the workings of equivalent units and cost per equivalent unit in each process). [12]

Question.7

a) The following figures have been extracted from the books of accounts of "Asha Ltd' for the year 2013.

Particulars	₹
Direct Material consumption	45.00,000
Direct Wages	36,00,000
Factory Overheads	16,00,000
Administration Overhead	7,00,000
Selling & Distribution Overhead	9,60,000
Bad Debts	80,000
Preliminary expenses written off	40,000
Legal Charges	10,000
Dividend received	1,00,000
Interest on deposit received	20,000
Sales (1,20,000 units)	1,20,00,000
Closing Stock	
Finished goods (4,000 units)	3,20,000
Work-in-progress	2,40,000

Cost accounts for the same period reveal that the direct material consumption was ₹ 50, 00,000. Factory overhead recovered was 20% on prime cost; Administration overhead recovered was @ ₹ 6.00 per unit of production and selling and distribution overhead recovered were @ ₹ 8.00 per unit sold.

You are required to prepare the Costing profit & loss account and reconcile the same with the Financial profit and loss account provided that the net profit as per financial books is ₹ 11,90,000 for that year. [4+4]

(b) The cost structure of an article the selling price of which is ₹45,000 is as follows:

- **i) Direct Materials - 50%**
- **ii) Direct Labour - 20%**
- **iii) Overheads - 30%**

An increase of 15% in the cost of materials and of 25% in the cost of labour is anticipated. These increased costs in relation to the present selling price would cause a 25% decrease in the amount of present profit per article.

You are required:

- **i) To prepare a Statement of Profit Per Article at Present, and**
- **ii) The Revised Selling Price to produce the same percentage of profit to sales as before**

[7]

Question.8

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

- **i) Role of Cost Accountant in Material Cost Control**
- **ii) Incremental Pricing**
- **iii) Value Analysis**
- **iv) Application of service costing**
- **v) Material transfer note**