

GUJARAT TECHNOLOGICAL UNIVERSITY**MBA - SEMESTER-II • EXAMINATION – WINTER 2013****Subject Code: 820001****Date: 23-12-2013****Subject Name: Cost and Management Accounting (CMA)****Time: 02.30 pm – 05.30 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1 (a) Explain the following terms: 07

1. Deferred Cost
2. Stepped Fixed Cost
3. Cost Tracing
4. Efficiency Audit
5. Kaizen Costing
6. Cost Object
7. Abnormal Loss

(b) The standard material cost per 100 kg. of Chemical D is made up of: 07

- Chemical A: 30 kg. @ Rs. 4 per kg.
 Chemical B: 40 kg. @ Rs. 5 per kg.
 Chemical C: 80 kg. @ Rs. 6 per kg.

In a batch, 500 kg. of Chemical D were produced from a mix of:

- Chemical A: 140 kg. at a cost of Rs. 588
 Chemical B: 220 kg. at a cost of Rs. 1056
 Chemical C: 440 kg. at a cost of Rs. 2860

How do the yield mix and the price factor contribute to the variance in the actual per 100 kg. of Chemical D over the standard cost? Calculate MCV, MPV and MUV.

Q.2 (a) The following data relates to the manufacture of a standard product during the month ended on 31 March, 2013. 07

Raw materials consumed	Rs. 15,000
Direct Wages	Rs. 9,800
Machine hours worked	2300 hours
Machine hour rate (paise)	30
Office on cost	10% of Works cost
Selling on cost	10 paise per unit
Units produced	19,030 units
Units sold	11,418 units
Sales price	Rs. 2 per unit

You are required to prepare a cost sheet in respect of the above showing:

- (i) Cost per unit and (ii) Profit for the period

(b) AB Ltd. is engaged in process engineering industry. During the month of April, 2000 units were introduced in Product X. The normal loss was estimated at 5% of input. At the end of the month, 1400 units had been produced and transferred to Process Y, 460 units were incomplete. The entire process had to be scrapped. The incomplete units had reached the following stage of completion: 07

Material: 75% completed

Labour: 50% completed

Overhead: 50% completed

Following are the further information on Process X

Cost of 2000 units: Rs. 58,000

Additional Direct Material: Rs. 14,400

Direct Labour: Rs. 33,400

Direct Overheads: Rs. 16,700

Units scrapped realized: Rs. 10 each

Prepare (i) Process X Account and (ii) Abnormal Loss Account

OR

(b) “Production budget is the mother of all budgets.” Comment.

07

Q.3 (a) From the following data relating to two different vehicles, A and B, compute the cost per tonne-mile.

07

	A	B
Mileage run (annual)	15,000	6000
Tonnes per mile (average)	6	4
	Rs.	Rs.
Cost of vehicle	25,000	15,000
Road licence (annual)	750	750
Insurance (annual)	700	400
Garage rent	800	700
Supervision and salaries (annual)	2500	2500
Driver's wage per hour	3	3
Cost of petrol per gallon	3	3
Miles run per gallon	20 miles	15 miles
Repair and maintenance charges (Rs/mile)	1.65	2.00
Tyre allocation per mile	0.40	0.60
Estimated life of vehicle (miles)	1,00,000	75,000

You are required to charge interest on cost of vehicle at 5% per annum. The vehicle runs 20 miles per hour on an average.

(b) Explain in details the steps involved in implementing a Target costing system.

07

OR

Q.3 (a) The Ultra Co. Ltd. is divided into four departments – A, B and C are Production departments and D is the service department. The actual costs for March 2013 were as follows:

07

	Rs.
Rent	1000
Repairs to plant	600
Depreciation of plant	450
Light	100
Supervision	1500
Fire Insurance Stock	500
Power	900
Employees state insurance contribution	150

The following information is available regarding the four departments.

Apportion the costs to various departments by preparing an overhead distribution chart.

Departments	A	B	C	D
Area (sq. ft.)	1500	1100	900	500
No. of employees	20	15	10	5
Total Wages (Rs.)	6000	4000	3000	2000
Value of plant (Rs.)	24,000	18,000	12,000	6000
Value of stock (Rs.)	15,000	9000	6000	-

(b) Compare and contrast Cost Audit and Financial Audit. 07

Q.4 (a) Pawan Ltd. manufactures 5000 units of a product PT at a cost of Rs. 120 per unit. Presently the co. is utilizing 50% of the total capacity. The information pertaining to cost per unit of this product is as follows: 07

Material – Rs. 60

Labour – Rs. 25

Factory overheads – Rs. 15 (40% fixed)

Administrative overheads – Rs. 20 (50% fixed)

(i) The current selling price of the product is Rs. 160 per unit.

(ii) At 80% capacity level – Material cost per unit will increase by 5% and current selling price per unit will reduce by 4%.

(iii) At 60% capacity level – Material cost per unit will increase by 3% and current selling price per unit will reduce by 2%.

Work out budgeted profit per unit at 70% and 90% capacity.

(b) Find out the break-even sales from the following details. 07

	Sales (Rs.)	Profit (Rs.)
Period I	2,00,000	20,000
Period II	3,00,000	40,000

OR

Q.4 (a) A company has two plants at locations I and II, operating at 100% and 75% of their capacity respectively. The company is considering merging both plants at one location and optimizing available capacity. The following details relate to the present performance of the two plants. 07

	Location I (Rs. Lakhs)	Location II (Rs. Lakhs)
Sales	200	75
Variable Cost	140	54
Fixed Cost	30	14

For decision-making purpose, you are required to work out the following information:

(i) The capacity at which the merged plant will break-even.

(ii) The profit of the merged plant working at 80% capacity.

(b) Find out the profit on actual sales from the following details. 07

Actual Sales – Rs. 20,000

Break-even Sales – Rs. 10,000

Fixed Cost – Rs. 5000

Q.5 (a) Power Ltd. manufactures two products, X and Y, using the same equipment and similar processes. An extract of the production data for these products in one period is given below: 07

Particulars	Product X	Product Y
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Quantity produced (units)	10,000	14,000
Direct labour-hours per unit	2	4
Machine-hours per unit	6	2
Setups in the period	20	80
Orders handled	30	120

The details of overhead costs are as follows:

Relating to machine activity – 8,80,000

Relating to production run setups – 80,000

Relating to handling of orders – 1,80,000

Calculate the production overheads to be absorbed by one unit of each product using:

- (i) Traditional costing approach using direct labour-hour rate to absorb overheads.
 - (ii) ABC approach using suitable cost drivers to trace overheads to products.
- (b)** Murty Ltd. has two divisions – P and Q. Division P has the capacity to manufacture 1,50,000 units of a special component X annually and it has some idle capacity currently. The relevant details extracted from the budget of P are as under: **07**
- Sales (to outside customers) – 2,20,000 units @ Rs. 80 per unit
Variable cost per unit – Rs. 60
Divisional Fixed cost – Rs. 8,50,000
Capital employed – Rs. 77,50,000
Cost of Capital – 15% per annum
- Division Q received an order for which it requires 25,000 units of a component similar to X. An additional variable cost of Rs. 6 per unit will be incurred to make minor modifications to X to the requirements of division Q.
What is the minimum transfer price per unit which P should quote to Q, if it targets a residual income of Rs. 25,00,000.

OR

- Q.5 (a)** Auto Link Ltd. has an annual production of 90,000 units for a motor component. The component's cost structure is as follows: **07**
- Materials – Rs. 270 per unit
Labour (25% fixed) – Rs. 180 per unit
Variable expenses – Rs. 190 per unit
Fixed expenses – Rs. 135 per unit
- The purchase manager has an offer from a supplier who is willing to supply the component at Rs. 540. Should the component be purchased and production stopped?
- (b)** Compare and contrast cost accounting, financial accounting and management accounting. **07**
