

Seat No.: _____

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GUJARAT TECHNOLOGICAL UNIVERSITY

M.B.A -IInd SEMESTER-EXAMINATION – MAY/JUNE- 2012

Subject code: 820001

Date: 28/05/2012

Subject Name: Cost and Management Accounting (CMA)

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Working notes is a part of your answers.

- Q. 1 (a) Capital engineering limited uses job costing. The following cost data is obtained from its books for the year ended 31st March 2011. 7

Direct material	Rs. 45,000
Direct wages	37,500
Profit	30,450
Selling and Distribution overheads	26,250
Administration overheads	21,000
Factory overheads	22,500

- (a) Prepare a job cost sheet indicating the prime cost, work cost, production cost, cost of sales and the sales value.
- (b) In the year 2011-12 the factory receives an order for a number of jobs. It is estimated that :

Direct material required will be Rs. 60,000 and direct labour will cost Rs. 37,500.

The factory recovers factory overheads as a percentage of direct wages and, Administration overheads and Selling and Distribution overheads as a percentages of work cost, based on cost rates prevailing in the previous year.

What should be the price for these jobs if the factory intends to earn the same rate of profit on sales; assuming that the Selling and Distribution overheads has gone up by 15 % ?

- (b) Select the MOST SUITABLE answer in each of the following statements: 7
- (1) The most important purpose of cost accounting system is to ...
1. Help in the valuation of inventory.
 2. Earn extra profits.
 3. Provide information to management for decision making.
 4. Aid in the fixation of prices.
- (2) Which method of absorption of factory overheads do you suggest in a concern which produces only one uniform item of product?
1. Percentage of direct wages basis
 2. Direct labour hour rate
 3. Machine hour rate
 4. A rate per unit of output
 5. Any of the above.

- (3) According to which of the following methods of pricing, issues are close to current economic values?
 1. Last-in-first-out price
 2. First-in-first-out price
 3. Highest-in-first-out price
 4. Weighted average price.
- (4) Which of the following items of cost should NOT be treated as direct material?
 1. Electricity representing 90% of the total cost
 2. Sand paper used in production
 3. Thread used in stitching garments
 4. All of the above
 5. None of first three.
- (5) Which of the following methods of wage payment is most suitable where quality and accuracy of work is of primary importance?
 1. Piece rate system.
 2. Time rate system.
 3. Differential piece work system.
 4. Halsey premium system.
- (6) Variable cost per Unit...
 1. Remains constant.
 2. Fluctuates with the volume of production.
 3. Increases or decreases in sympathy with the volume of sales.
- (7) The method of accounting for joint product costs that will produce the same gross profit rate for all the products is-
 1. Sales value method
 2. Physical measure method
 3. Average unit cost method
 4. All of these
 5. None of first three.

Q.2 (a) Write four assumptions and four limitations of EOQ (Economic Order Quantity); and, for undergiven data, calculate EOQ: 7

The annual requirement for the material is 500 tonnes. The ordering cost per order is Rs. 6,250. The Stock Holding Cost is estimated at 25 % of the material cost per annum. And, the price per tonne is Rs. 5,250 (there is no quantity discount).

(b) Explain the differences Between Direct Expenses and Indirect Expenses. 7

OR

(b) A manufacturing company produces a variety of products, some of which are selling at a high volume while others are selling at a low volume because of being at different stages in their life cycles. You are given the following data for the year ended 31.3.2011: 7

Factory overhead cost (Rs.)			
<u>Materials related:</u>		<u>Machine related:</u>	
Materials handling	43,600	Machine operating cost	1,00,800
Materials receipts and processing	54,400	Machine set-up cost	32,040
Freight in	24,000	Other overheads	3,60,000

Other particulars:

Direct material cost 2,03,400. Direct labour-hours 80,000. Quantity of materials (kg): 30,000. Set-up hours: 84. Number of receipts: 1,600. Machine hours: 7,200.

The company used volume-based cost drivers and allocated all materials related overheads based on direct materials cost, all machine related overheads based on machine hours and all remaining overheads based on direct labour hours.

The company, however, wants to switch over to ABC system for ascertainment of overhead costs.

Required:

- i. Determine the three overhead rates currently used by the company.
- ii. List the cost driver that you would like to use to allocate each cost pool to products using ABC.
- iii. Determine the overhead rates that the ABC system should use for the year ended 31.3.2011 based on the new cost drivers.
- iv. Your comment on Conventional Vs. ABC system.

Q. 3 (a) (i) Explain the differences between Marginal Costing and Absorption Costing. 7

(ii) Write explanatory note : Basics of Target Costing.

(b) Abby battery company furnishes you the following information for the Year 2010. 7

	First half	Second half
Sales	Rs. 16,20,000	Rs. 20,52,000
Profit earned	43,200	1,29,600

From the above you are required to compute the following; assuming that the fixed cost remain the same in both the period:

1. Profit/Volume Ratio (%).
2. Fixed cost.
3. Yearly BEP sales.
4. The amount of the profit or loss when sales are Rs. 12,96,000 per half.
5. The amount of sales required to earn a profit of Rs. 2,16,000 per half.
6. Margin of safety in Rs. and in percentage for the year.

OR

Q. 3 (a) Following is the data relating to bought-out prices and costs of production of the undernoted items: 7

Particulars	Items		
	A	B	C
Purchase price per Unit	Rs. 40	Rs. 50	Rs. 60
Variable cost per unit	Rs. 28	Rs. 60	Rs. 40
Fixed cost per unit	Rs. 10	Rs. 16	Rs. 20
Production per machine hour	1.5	2	2.5
Labour hours required per unit	Hours 2	Hours 2	Hours 4

You are required to prepare a suitable statement showing which items should be purchased from outside by assigning ranks in the order of preference for buying, by assuming :

- i. There is no constraint or key factor.
- ii. A machine hour is a key factor.

iii. A labour hour is a key factor.

- (b) XY Ltd has a production capacity of 40,000 units and sells its products at Rs. 72 per unit. Presently, it has been operating at 75% capacity. The current cost structure in Rs. Per unit is given below: 7

Direct materials	20
Direct labour	8
Manufacturing overheads (40% variable)	20
Marketing costs (50% variable)	16
Total	64

The company received a special order for 5,000 units @ Rs. 56 per unit. It is given that the additional production of 5,000 units can be produced using part of the available capacity and the special order price will not have any impact on the regular market of XY Ltd. However, special packing will entail an additional cost of Rs. 4 per unit. Should the order be accepted? What will be the impact on XY Ltd.'s operating profit?

- Q. 4 (a) PQR Hotel has three types of suites for its customers, viz., single room, double room and three rooms respectively. State the rent (in multiple of 10) to be charged for each type of suite on the basis of the following data: 7

i. The number of suites for each type are:

- a) Three –room suites 10
- b) Double –room suites 15
- c) Single –room suites 50

ii. The occupancy of each type of suite is as follows:

	<i>Summer</i>	<i>Winter</i>
a) Three –room suites	60%	20%
b) Double –room suites	80%	20%
c) Single –room suites	90%	50%

iii. The annual expenses are as follows:

a) Staff salaries Rs. 17,60,000

b) Room attendants' wages when occupied:

	<i>Summer</i>	<i>Winter</i>
Three –room suites	Rs. 32	Rs. 48
Double –room suites	24	36
Single –room suites	16	24

c) Lighting, heating and power for full month when occupied both for summer and winter:

	<i>Lighting</i>	<i>Power</i>
Three –room suites	Rs. 640	Rs. 320
Double –room suites	480	240
Single –room suites	320	160

d) Repairs and renovation Rs. 3,36,000

Linen etc. 3,60,000

Interior decoration 4,00,000

Sundries 2,52,400

e) Depreciation:

Building @ 5% on Rs. 1,12,00,000

Furniture and fixtures @ 10% on Rs. 8,00,000
 Air-conditioner @ 10% on Rs. 16,00,000

- f) Summer may be assumed for 7 months and winter for 5 months in a year. A month may be taken as of 30 days.
- g) Profit including interest on investment @ 25% on cost.
- h) The rent of the double-room suite is to be fixed as 1.5 times the single-room suite and that of three-room as twice the single-room suite.

(b) Write note on : Advantages of Cost Audit. 7

OR

Q. 4 (a) The product of a company passes through three distinct processes to completion. 7

From past experience, it is ascertained that normal wastage in each process is as under:			The Actual output of each process was as under:	
<i>Process</i>	<i>Wastage</i>	<i>Sale value of wastage</i>	<i>Process</i>	<i>Output</i>
A	2%	Re 1 per unit	A	3,850 Units
B	4%	Rs 2 per unit	B	3,600 Units
C	2.5%	Rs 3 per unit	C	3,520 Units

The Expenses were as follows:

	<i>Process A</i>	<i>Process B</i>	<i>Process C</i>
Materials	Rs. 12,000	Rs. 10,000	Rs. 9,000
Direct labour	16,000	5,000	4,900
Manufacturing Expenses	2,000	3,400	3,590
Other factory expenses	3,560	2,236	2,220

4,000 units were initially introduced in process A at a cost of Rs. 13,560.

Prepare Process Accounts, Abnormal Gain Account, and also work out the sale price per unit of finished stock so as to realize 20% profit on selling price.

(b) A factory is engaged in the production of a chemical X and in the course of its manufacture a by-product Y is produced, which after a separate process has a commercial value. For the month of March 2011, the following are the summaries costing data: 7

	<i>Joint Expenses</i>	<i>Separate Expenses</i>		The output of the month was 142 tonnes of X and 49 tonnes of Y, and the selling price of Y averaged Rs. 280 per tonne.
	<i>Rs.</i>	<i>X. Rs.</i>	<i>Y. Rs.</i>	
Materials	19,200	7,360	780	
Labour	11,700	7,680	2,642	
Oncost	3,450	1,500	544	

Assuming that the profit on Y is estimated at 50% of the selling price, prepare an account of showing the cost of X per tonne.

Q. 5 (a) Differentiate between fixed and flexible budget. 7

(b) (i) In which industries the Standard Costing System is most suitable? 7
 (ii) Write note on : Limitations of Standard Costing.

OR

- Q. 5 (a) Draw up a flexible budget for overhead expenses on the basis of the following data and determine the overhead rates at 70%, 80% and 90% plant capacity. (at 80% level capacity, the estimated direct labour hours 1,24,000 Hours) 7

	<i>Capacity levels</i>		
	<i>70%</i>	<i>80%</i>	<i>90%</i>
Variable overheads:	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>
Indirect labour	---	12,000	---
Stores including spares	---	4,000	---
Semi-variable overheads:			
Power (30% fixed, 70% variable)	---	20,000	---
Repairs and maintenance (60% fixed, 40% variable)	---	2,000	---
Fixed overheads:			
Depreciation	---	11,000	---
Insurance	---	3,000	---
Salaries	---	10,000	---
Total overheads	---	62,000	---

- (b) The budgeted and actual sales of a certain firm manufacturing and marketing a single product are furnished below: 7

PRODUCT	BUDGETED		ACTUAL	
	Quantity	Price per unit	Quantity	Price per unit
(a)	10,000	Rs. 7	9,000	6
(b)	6,000	Rs. 8	8,000	9

Calculate: Three sales variances.
