Seat No.: __________ **Enrolment No.____________**

GUJARAT TECHNOLOGICAL UNIVERSITY

MBA Semester –II Examination Dec. – 2011

Subject code: 820001 **Date: 07/12/2011**

Subject Name: Cost and Management Accounting (CMA)

Time: 10.30 am – 01.30 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) Write short notes on the following : **07**

i. Product Costs ii. Period costs iii. Out of pocket cost iv. Sunk Costs v. Opportunity cost vi. Replacement cost vii. Joint cost

(b) The following particulars have been extracted from the accounts of Barbie Manufacturing Co Ltd for manufacture of 14 HP motor cars for the year ending 31 December . **07**

Particulars	Rs.
Opening stock of raw materials	1,00,000
Purchase of materials	20,00,000
Carriage inward of raw materials	1,00,000
Wages	4,00,000
Works overheads	5,00,000
Establishment and general charges	2,40,000
Closing stock of raw materials	1,00,000

a. Find out the works cost and total cost of a motor car , the percentage the works overhead bears to the wages , and the percentage that establishment charges bears to the works cost . Assume 15% selling cost on cost of production .

b. Work out what price the company should quote for a motor car , which it is estimated will require an expenditure of Rs.21,000 in raw materials and Rs.4,000 in wages , so that it would yield a profit of 25% on total cost .

Q.2 (a) The cost sheet of a company based on a budgeted volume of sale 3,00,000 units per quarter shows the following : **07**

Direct Materials	Rs.5.00 per unit
Direct Labour	Rs.2.00 per unit
Factory Overheads (50% fixed)	Rs.6.00 per unit
Selling and Administrative Overhead (1/3 variable)	

Rs.3.00 per unit
The selling price is Rs.18 per unit . When the budget was discussed , it was felt that the company would be able to achieve only a volume of 2,50,000 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 1 : Sell 4,00,000 units per quarter by spending Rs.2,00,000 on special advertising . In this case , the Fixed Factory Overhead will increase by Rs.4,00,000 per quarter .

Proposal 2 : Sell 5,00,000 units per quarter by reducing the selling price by Rs.2 per unit on all sales . In this case , the Variable Selling and Adminisration Overhead will increase by 5 % : Direct Material Cost will be reduced by 1 %. Due to purchase price discounts , and fixed factory costs will increase further by Rs.2,00,000 .
You are required to prepare a Flexible Budget at 2,50,000 : 4,00,000 and 5,00,000 units of output per quarter .
Calculate the profit at each of the above levels of output .

(b) Briefly explain the concept of boiler costing and its objectives and state the main heads of expenditure for a boiler house . **07**

OR

(b) From the following data relating to two different vehicles , A and B , compute the cost per tone – mile . **07**

	A	B
Mileage run (annual) Tonnes per mile (average)	15,000 6	6,000 4
	Rs.	Rs.
Cost of vehicle	25,000	15,000
Road license (annual)	750	750
Insurance (annual)	700	400
Garage rent	800	700
Supervision and salaries (annual)	2,500	2,500
Drivers' wages per hour	3	3
Cost of petrol per gallon	3	3
Miles run per gallon	20 miles	15 miles
Repairs and maintenance charges (Rs / mile)	1.65	2.00
Tyre allocation per mile	0.40	0.60
Estimated life of the vehicle (miles)	1,00,000	75,000

Q.3 **(a)** A farmer asks your recommendation for the optimal mix **07**

of production for the coming year . The current data is given below :

Particulars	Items produced			
	A	B	C	D
Area occupied (acres)	25	20	30	25
Yield per acres (tones)	10	8	9	12
Sales price per tones (Rs)	1,000	1,250	1,500	1,350
Variable cost per acre				
Material (Rs)	700	600	950	900
Labour (Rs)	2,000	2,500	3,000	3,700
Variable overhead (Rs.)	2,000	2,000	2,000	2,000
Fixed overheads				
Cultivation and	Rs.1,00,000	--	--	--
growing			--	--
Harvesting and	2,40,000	--	--	--
transport	90,000	--	--	--
Land revenue	1,10,000	--		
Administration				

The land which is being used for producing items A and B can be used for either items but not items C and D . The land which being used for producing items C and D can be used for either items , but not for items A and B.
In order to provide adequate market service , the farmer must produce each year at least 40 tonnes each of A and B and 36 tonnes each of C and D .
You are required to calculate the following :
i. The profit for the current year : and
ii. The profit for the production mix which you would recommend .

(b) " Marginal costing is a valuable technique to the management " Critically evaluate . Discuss in detail limitations of Marginal Costing . **07**

OR

Q.3 **(a)** The following extracts are taken from sales budget of a company for the current year : **07**
(Rs in 000)

Sales 40,000 units		1,000
Selling costs :		
Advertising	100	
Salesmen's salaries	80	
Travelling expenses	50	
Rent- Sales Office	10	
Others	10	250

The management is considering a proposal to establish a new market in the eastern region in the next year . It is proposed to increase the advertising expenditure by 25% and appoint an additional sales supervisor at a salary of Rs.30,000 per year to establish a market . This will involve additional travelling and travelling expense shall increase by 10 % .
Target annual sales volume at the existing selling price for the new market is 10,000 units . The estimated variable cost of production is Rs.12 per unit . Should the company try to establish the new market ?

(b) Write a short notes on

i) Transfer Price at Shadow Pricing **03**

ii) Transfer price at Negotiated price **01**

iii) Hybrid pricing methods with reference to Transfer pricing **03**

Q.4 (a) Explain the advantages of and objections against Cost Accounting **07**

(b) A factory uses job costing . The following cost data is obtained from its books for the year ending 31December 2010 . **07**

	Rs.
Direct material	90,000
Direct wages	75,000
Profit	60,900
Selling and distribution overheads	52,500
Administration overheads	42,000
Factory overheads	45,000

1. Prepare a job cost sheet indicating the prime cost , work cost , production cost , cost of sales , and the sales value .
2. In 2011 , the factory receives an order for a number of jobs . It is estimated that direct materials cosat Rs.1,20,000 and labour costs Rs.75,000 . Whast should be the price of these jobs if the factory intends to earn the same rate of profit on sales ? Apply works overheads as a percentage of direct wages , and administration and selling and distribution overhead as a percentage of works cost . You can use the rates prevailing in the previous year for this purpose .

OR

Q.4 (a) Briefly explain suitability , merits and demerits of the following methods of absorption of overheads : **04**

i.) Percentage of direct material cost

ii) Percentage of direct labour cost **03**

(b) Bright Light Ltd manufactures two products – Bright and Delight , using the same equipment and similar processes . The following information is extracted from the production department pertaining to the two products for the quarter ending 31 December 2007 . **07**

Particulars	Bright	Delight
Quantity produced (units)	1,000	1,500
Direct labour hours per unit	2	4
Machine hours per unit	3	1
Number of set-ups in the period	20	80
Number of orders handled in the period	30	120

Total production overheads recovered for the period has been analysed as follows :

Particulars	Rs.
Relating to machine activity	4,50,000
Relating to production run set-ups	40,000
Relating to handling of orders	90,000
	5,80,000

You are required to calculate the production overheads to be absorbed by each unit of the products using the following costing methods :

i. A traditional costing approach , using a direct labour hour rate to absorb overheads .
ii. An ABC approach , using suitable cost drivers to trace overheads to products ,

Q.5 **(a)** The cost records show the following expenses of manufacturing 200 units of Product X in a process **07**

Particulars	Rs.
Material	.4000
Labour	1,500
Overhead	500

The standard normal wastage in production is 10% and it can be sold in the market at Rs.15 per unit . The actual production is 150 units which is attributable to gross carelessness of the workers .
Show the treatment of wastage in the Process A/c and prepare the Abnormal Wastage A/c

(b) Define ‘ Cost Audit ‘ and explain its main features **07**

OR

Q.5 **(a)** Cheap Processors Ltd produces a chemical A of which standard material cost is : **07**

40% of material P at Rs.4,000 per metric tone
60% of material Q at Rs.6,000 per metric tone
Standard loss of 10% is expected in production . During January 2008 , , 171 metric tones of A were produced from the use of 90 metric tones of material P at Rs.3,600 per metric tone and 110 metric tones of material Q at Rs.6,800 per metric tonne . Calculate the following material variance for the month of January 2008 indicating their nature , i.e favourable or adverse .

i) Material price variance
ii) Material mixture variance
iii) Material yield variance
iv) Material total cost variance

(b) Explain objectives and salient features of Statutory Cost Audit in India **07**

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