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Third Semester MBA Degree Examination, June 2012

Management Accounting and Control Systems

Time: 3 hrs.

Max. Marks:100

**Note: 1. Answer any FOUR full questions from Q.No.1 to Q.No.7.
2. Question No. 8 is compulsory.**

- 1 a. What is a cost centre? (03 Marks)
- b. A company is purchasing annually 20000 units of a component at Rs.12 per unit. There is a proposal to make this component in the company. This would require the installation of plant at a cost of Rs.3,00,000 having an expected life of 10 years at the end of which the residual value is likely to be Rs.40,000. In order to purchase this machine, the company has to withdraw the amount from a fixed deposit which was earning an annual interest of 12%. The other costs per annum are:
- Insurance = Rs.2000; Power = Rs.14,000; Rent = Rs.2,000.
- Material will cost Rs.3 and 6 workers are needed who will be paid Rs.750 each per month besides a supervisor who is paid Rs.1500 per month. Suggest the company whether to make or buy the component. (07 Marks)
- c. A product passes through three distinct processes A, B and C. the normal loss in different processes is of 3% in process 'A', 4% in process 'B' and 5% in process 'C'. the scrap of process 'A' was sold at 0.50 p per unit, process 'B' at 0.75 p and that of process 'C' at Re.1 per unit. The detail of expenses in different processes is as follows:

	A	B	C
Sundry materials ((Rs.)	1,200	1,800	900
Direct labour (Rs.)	4,500	7,500	6,000
Other expenses (Rs.)	1,400	1,250	1,400
Actual output (units)	9,050	9,000	8,200

10000 units at a cost of Rs.2 per unit were introduced in process 'A'. Assume that there is no opening stock and closing stock. Prepare various process accounts. (10 Marks)

- 2 a. Mention the assumptions of CVP analysis. (03 Marks)
- b. Explain the various methods of pricing. (07 Marks)
- c. From the following information, calculate :
- Material price variance
 - Material usage variance
 - Material mix variance

	Standard			Actual		
	Quantity (kg)	Unit Price (Rs)	Total (Rs)	Quantity (kg)	Unit Price (Rs)	Total (Rs)
Material A	10	2	20	5	3	15
Material B	20	3	60	10	6	60
Material C	20	6	120	15	5	75
Total	50		200	30		150

(10 Marks)

- 3 a. What is zero based budgeting? (03 Marks)
 b. What is cost audit? What are its objectives and advantages? (07 Marks)
 c. The following extract of costing information relates to commodity 'A' for the year ending 31st December 2010.

	Rs.
Purchase of raw materials	60,000
Direct wages	50,000
Rent, rates and insurance	20,000
Carriage inward	1,000
<u>Stock on 1st Jan 2010:</u>	
Raw materials	10,000
Finished products (2000 tons)	8,000
<u>Stock on 31st Dec 2010:</u>	
Raw materials	11,000
Finished products (4000 tons)	--
Work-in-progress (1 st Jan 2010)	2,400
Work-in-progress (31 st Dec. 2010)	8,000
Cost of factory supervision	4,000
Sales of finished products	1,50,000

Advertising and selling costs amounts to Re.0.40 per ton sold. 32000 tons of the commodity were produced during the period. Prepare a cost sheet and find out profit per unit. (10 Marks)

- 4 a. Define transfer price. (03 Marks)
 b. Explain the various costs used for managerial decision making and planning. (07 Marks)
 c. Selling price per unit = Rs.50; Variable cost per unit = Rs.30; Fixed cost = Rs.60,000. Calculate: i) Break event point, ii) Sales to earn profit of Rs.40,000 and iii) New break even point when the selling price is reduced to Rs.45 per unit. (10 Marks)
- 5 a. Differentiate between management control and task control. (03 Marks)
 b. Alpha Company Ltd. has three production departments X, Y Z and two service departments A and B. The following are the expenses for the year 2010.

	Rs.
Rent and Rates	10,000
Lighting and electricity	1,200
Indirect wages	3,000
Power	3,000
Depreciation on machinery	20,000
Sundry expenses	20,000

Following further details are also available:

	Total	X	Y	Z	A	B
Floor space (sq. mts)	10,000	2,000	2,500	3,000	2,000	500
Light points (No.s)	120	20	30	40	20	10
Direct wages (Rs)	20,000	6,000	4,000	6,000	3,000	1,000
Horse power of machines	300	120	60	100	20	-
Cost of machinery	1,00,000	24,000	32,000	40,000	2,000	2,000
Working hours	-	4,670	3,020	3,050	-	-

The expenses of the service departments of A and B are to be allocated as follows:

	X	Y	Z	A	B
A	20%	30%	40%	-	10%
B	40%	20%	30%	10%	-

You are required to calculate the overhead absorption rate per hour in respect of the three production departments. (07 Marks)

- c. What is MBO? Explain its advantages and limitations. (10 Marks)

- 6 a. Define activity based costing. (03 Marks)
 b. What is standard costing? Explain its advantages and limitations. (07 Marks)
 c. The cost per unit of an article at the capacity level of 5,000 units is Rs.12.55 and the expenses are given below:

	Rs
Materials	25,000
Labour	15,000
Power (80% variable)	1250
Repair (75% variable)	2,000
Stores (100% variable)	1,000
Inspection (20% variable)	500
Administrative expenses (25% variable)	5,000
Selling overheads (50% variable)	3,000
Depreciation	10,000

Prepare a flexible budget for production of 4,000 and 6,000 units. Also find out the cost per unit on all the levels of production. (10 Marks)

- 7 a. What is margin of safety? (03 Marks)
 b. The information given below has been taken from the cost records of an engineering works in respect of job No. 206.

Materials = Rs.6,040

Wages : Department A = 80 hours at Rs.4 per hour

Department B = 60 hours at Rs.3 per hour

Department C = 40 hours at Rs.2 per hour.

The overhead expenses are as follows:

Variable overheads: Department A = Rs.8000 for 4000 hours

Department B = Rs.4000 for 2000 hours

Department C = Rs.3000 for 1000 hours.

Fixed expenses are estimated at Rs.30,000 for 12000 working hours. You are required to calculate the cost of job No. 206 and calculate the price for the job to give 25% of profit on selling price. (07 Marks)

- c. Explain the various tools and techniques of cost reduction. (10 Marks)

- 8 India Ltd. is producing three products X, Y and Z. The data for the three products is given below:

	X	Y	Z
Maximum capacity	5000 units	2000 units	3000 units
Direct material at Rs.10 per kg	Rs.40	Rs.10	Rs.30
Other variable costs	Rs.36	Rs.25	RS.10
Selling price	Rs.100	Rs.50	Rs.60
Fixed cost	Rs.20000	Rs.15000	Rs.10000

Calculate the best product-mix in each of the following three cases:

- i) Total availability of raw materials is limited to 18000 kgs.
 ii) Under a trade agreement the firm cannot produce more than 7500 units of the three products taken together
 iii) Total sales value of the three products can not exceed Rs.6,50,000. (20 Marks)

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