

USN

--	--	--	--	--	--	--	--	--	--	--	--

05MBA32

### Third Semester MBA Degree Examination, May/June 2010

### 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 do you understand by management control? What are the basic elements of the control process? (03 Marks)
- b. Discuss 'full-cost plus' and 'marginal cost plus' methods of pricing. Which pricing method can be useful to a firm? Give reasons. (07 Marks)
- c. "Management control systems are tools to implement strategies". Explain the procedure of strategy formulation at both corporate level and business level. (10 Marks)
- 2 a. Define i) Imputed cost ii) Differential cost and iii) Opportunity cost. (03 Marks)
- b. Abbas Ltd. provides the following data, from which you are required to calculate;  
 i) Break-even point in sales value. ii) Number of units that must be sold to earn a profit of Rs.75000 per year. iii) Units to be sold to earn a net income of 10% sales.  
 Selling price = Rs. 20 per unit      Variable manufacturing costs = Rs. 10 per unit  
 Variable selling costs = Rs. 4 per unit      Fixed factory overheads = Rs. 490000 per annum  
 Fixed administration overheads = Rs. 50000 per annum  
 Fixed selling costs = Rs. 252000 per year. (07 Marks)
- c. A product of a manufacturing concern passes through three distinct processes A, B and C. 1600 units at Rs.3 each were introduced to process A. The following information is obtained from the accounts for the month ending December 31, 2002:

Costs	Process A	Process B	Process C
Direct material	Rs.2650	Rs.1700	Rs.3906
Direct wages	Rs.2200	Rs.3300	Rs.4400
Production overheads	Rs.2200	Rs.3300	Rs.4400

There was no stock, material or work-in-progress at the beginning or end of the period. The following additional data is provided:

Process	Output during the month	Percentage of normal loss to input	Value of scrap per unit
A	1440 units	10%	Rs.2
B	1200 units	15%	Rs.4
C	980 units	20%	Rs.5

Prepare the process cost accounts. (10 Marks)

- 3 a. What are the informal factors that influence goal congruence? (03 Marks)
- b. What is transfer pricing? Under what conditions are transfer prices necessary? (07 Marks)
- c. Jackson Manufacturing Company Ltd. provided the following cost data for the year ending December 31, 2000:

Direct material = Rs. 190000      Direct wages = Rs. 175000

Administration overheads = Rs. 116000      Selling & distribution overheads = Rs. 94500

Factory overheads = Rs. 105000      Profit = Rs. 136100

- i) Prepare a job cost sheet indicating the prime cost, works cost, production cost, cost of sales and sales value for the year 2000.

- 3 c. ii) In the year 2001, the factory receives an order for a number of jobs. It is estimated that direct materials required will be Rs.220000 and direct labour will cost Rs.175000. What should the price be for these jobs, if the factory intends to earn the same rate of profit on sales, assuming that the selling and distribution overheads have gone up by 15%? The factory receives factory overheads as a percentage of direct wages and selling & distribution overheads and administration overheads as a percentage of works cost based on cost rates prevailing in the previous year. Prepare the estimated job cost sheet for the year 2001. (10 Marks)

- 4 a. What is meant by responsibility centre? How does a revenue centre differ from profit centre? (03 Marks)

- b. Pranav Engineering Company Ltd. manufactures product Z. An estimate of the number of units expected to be sold in the first seven months of 2002 is given below:

Month	January	February	March	April	May	June	July
Sales (Units)	600	800	1000	1200	1200	1000	1500

It is anticipated that, there will be no work-in-progress at the end of any month and finished units equal to half the anticipated sales for the next month will be in stock at the end of each month (including December 2001). You are required to prepare a production budget showing the number of units to be manufactured each month from January to June 2002. (07 Marks)

- c. The following data has been extracted from the books of M/s. Jeevan Ltd. for the year 2004.

<u>Opening Stock:</u>	(Rs.'000)	<u>Closing Stock:</u>	(Rs.'000)
Raw materials	25000	Raw materials	40000
Work-in-progress	10000	Work-in-progress	6000
Finishes goods	9000	Finishes goods	7800
<u>Purchases:</u>		<u>Office furniture</u>	100
Raw materials	85000	Salary – Office	2500
Carriage inwards	5000	– Salesmen	2000
Wages – Direct	75000	Other factory expenses	5700
– Indirect	10000	Other office expenses	900
Other direct charges	15000	Advertisement	2000
Rent & Rates – Factory	5000	Sales	250000
– Office	500	Carriage outward	1000
Depreciation – Plant	1500	Other selling expenses	1000
Travelling expenses (Salesmen)	1100	Managing Director's remuneration	12000
Advance income tax paid	15000		

The managing director's remuneration is to be allocated as Rs.40,00,000 to the factory; Rs.20,00,000 to the office and Rs.60,00,000 to the selling department. Prepare 'Cost sheet' showing prime cost, works cost, cost of production, cost of sales and net profit. (10 Marks)

- 5 a. What is 'cost audit'? What are its advantages? (03 Marks)

- b. From the following data given below, calculate each of the three variances fro the two departments A and B of Salim Leather Products Ltd.

	Department A	Department B
Actual gross wage	Rs.20500	Rs.17400
Standard hours	800	600
Standard rate per hour	Rs.30	Rs.35
Actual hours worked	820	580

Determine wage rate variance, labour efficiency variance and labour cost variance.(07 Marks)

- 5 c. The budgeted cost of a factory specializing in the production of a single product at the optimum capacity amounts to Rs.62000 per annum, as detailed below:

Variable overheads :	Rs.
Indirect labour	12000
Indirect material	4000
Semi-variable overheads :	
Power (30% fixed, 70% variable)	20000
Repairs & maintenance (60% fixed, 40% variable)	2000
Fixed overheads :	
Depreciation	11000
Insurance	3000
Other charges	10000

Having regard to possible impact on sales turnover by market trends, the company decided to have a flexible budget at different capacity levels. The sales revenue estimated for the optimum capacity is Rs.155000. The estimated direct labour hours at present is 124000 hours. Prepare a flexible budget for 70% and 50% capacity indicating the effect on net profit and determine the overhead rate per direct labour hours. (10 Marks)

- 6 a. Critically evaluate the limitations of budgeting. (03 Marks)  
 b. What is activity based costing? Elucidate its benefits. (07 Marks)  
 c. A company manufacturing chemicals, operates a costing system. The standard cost of one of the products of the company shows the following standards:

Materials	Quantity in kg	Standard price per kg in Rs.	Total (Rs.)
A	40	75	3000
B	10	50	500
C	50	20	1000
Material cost per unit (Total)			4500

The standard input mix is 100 kg and the standard output of the finished product is 90 kg.

The actual results for the period are:

Material used      A = 240,000 kg @ Rs. 30/kg  
                         B = 40,000 kg @ Rs. 52/kg  
                         C = 220,000 kg @ Rs. 21/kg

Actual output of the finished product = 420,000 kg. Calculate the material price, material mix and material yield variances. (10 Marks)

- 7 a. Write a note on the importance of cost reduction and the tools and techniques applied for cost reduction. (05 Marks)  
 b. Aniruth Pvt. Company Ltd., manufacturing a single product, is facing severe competition in selling it at Rs.50 per unit. The company is operating to 60% level of capacity at which level the sales are Rs.1200000 and variable costs are Rs.30 per unit. Semi-variable costs may be considered as fixed at Rs.90000 when output is nil and the variable element is Rs. 250 for each additional 1% level of activity. Fixed costs are Rs.150000 at the present level of activity, but at 80% level of activity or above these costs are expected to increase by Rs.50000. The variable cost increase by 2% at 80% level of activity and above.  
 To cope with the competition, the management of the company is considering a proposal to reduce the selling price by 5%. You are required to prepare a statement showing the operating profit at levels of activity of 60%, 70%, 80% and 90% assuming that i) the selling price remains at Rs.50 and ii) the selling price is reduced by 5%. (15 Marks)

### 8 Case Study:

Nubo Manufacturing Inc., is engaged in the manufacture of a patented electronic component. Present sales are direct to retailers. But in recent years there has been a steady decline in output because of increasing foreign competition. The accounting records showed decline in profits for past five years. The company considers that a profit of Rs. 80,000 should be achieved. The marketing director after a thorough review passes on three proposals to you for evaluation and recommendation, together with profit and loss account, for the year ending 31<sup>st</sup> Dec. 2005.

**Nubo Inc., profit & loss a/c for the year ending 31-12-2005.**

Sales revenue (100,000 units @ Rs.10)	10,00,000
Factory cost of goods sold:	
Direct materials	1,00,000
Direct labour	3,50,000
Variable factory overheads	60,000
Fixed factory overheads	2,20,000
Administration overheads	7,30,000
Selling & distribution overhead:	1,40,000
Sales commission (2% of sales)	20,000
Delivery costs (variable)	50,000
Fixed costs	40,000
Profit	9,80,000
	20,000

The three proposals recommended are as follows:

- i) To proceed on the basis of analysis of market research indicating that the demand for the product is such that a 10% reduction in selling price would increase demand by 40%.
- ii) That a price reduction of 10% together with an intensive advertising campaign costing Rs.30000 may increase sales to 160,000 units.
- iii) A mail order company intends to purchase 50000 units and it would transport the products from Nubo Ltd., to its own warehouse and sales commission would be paid on these sales by Nubo Ltd., if negotiated price is acceptable. Nubo Ltd., agrees to contribute Rs.60000 per annum towards the fixed cost and also provide an additional packaging cost of Rs.0.50 per unit.

You are required:

- a. To calculate the break-even sales based in 2005 accounts.
- b. A financial evaluation of proposal (i) and a calculation of the number of units Nubo Ltd. would require to sell at Rs.9 each to earn a target profit of Rs.80000.
- c. A financial evaluation of proposal (ii).
- d. Quote the selling price for proposal (iii) to earn a target profit of Rs.80000. (20 Marks)

\* \* \* \*