

NEW SCHEME**Third Semester MBA Degree Examination, Dec.06./Jan.07**
Business Administration
Management Accounting and Control Systems

[Max. Marks:100]

Time: 3 hrs.]

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

- 1 a. What is a cost centre? (03 Marks)
b. Differentiate between standard costing and budgetary control. (07 Marks)
c. Explain the various classifications of cost. (10 Marks)
- 2 a. What are abnormal effectives? (03 Marks)
b. The following is the record of receipts of material for the manufacture of table tops using formica sheet. Find out price variance, usage variance and material cost variance. (07 Marks)
STD quantity of formica per table = 4 sq.ft
STD price per sq.ft of formica = Rs.5/-
Actual production of tables = 1000
Formica actually used = 4300 sq.ft
Actual purchase price of formica per sq.ft = Rs.5.50 /-
c. ECI ltd furnish the following information for 10000 units of an electronic component of an even size during the year 2006. (10 Marks)
Material Rs.90000; Direct wages Rs.60000; Power and Consumable stores Rs.12000; Factory indirect wages Rs.15000; Factory lighting Rs.5500; Cost of rectification of defective work Rs.3000, Clerical salaries and management expenses Rs.33500; Selling expenses Rs.5500; Sale proceeds of scrap Rs.2000; Plant repairs, maintenance and Depreciation Rs.11500.
The net selling price was Rs.31.60 per unit sold and all units were sold from Jan.1st 2007. The selling price was reduced to Rs.31.00 per unit. It was estimated that production could be increased by 50% in 2007 due to spare capacity. Rates of materials and direct wages will increase by 10%. You are required to prepare :
i) Cost sheet for the year 2006 showing various elements of cost per unit and
ii) Estimated cost and profit for 2007, assuming that 15000 units will be produced and sold during the year and factory OH will be recovered as a percentage of direct wages and office and selling OH as a percentage of work cost. (10 Marks)
- 3 a. What are opportunity costs? (03 Marks)
b. Mention the scope of cost audit. (07 Marks)
c. Prepare necessary accounts from the following details :

Particulars	Process A	Process B
Materials	Rs.30000	Rs.3000
Labour	Rs.10000	Rs.12000
Overheads	Rs.7000	Rs.8600
Input in units	Rs.20000	Rs.17500
Normal loss	10%	4%
Sale value of wastage per unit	Rs.1	Rs.2

There was no opening or closing stock of WIP. The final output in Process B was 17000 units. (10 Marks)

Contd...

- 4 a. What is a flexible budget? (03 Marks)
 b. Briefly explain the various methods of transfer pricing (Intra company). (07 Marks)
 c. With the following data for a 60% activity prepare a flexible budget for production at 80% and 100% activity. Production at 60% activity : (10 Marks)

Materials	Rs.100 per unit
Labour	Rs.40 per unit
Expenses	Rs.10 per unit
Factory expenses	Rs.40000 (40% fixed)
Administration expenses	Rs.30000 (60% fixed)

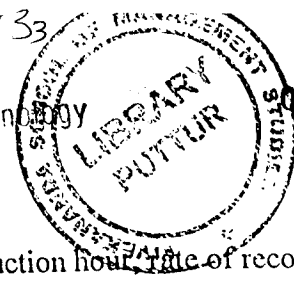
- 5 a. Differentiate between allocation and apportionment of over head. (03 Marks)
 b. Mention the various techniques used for cost reduction. (07 Marks)
 c. Y Ltd has just been incorporated and plan to produce a product that will sell for Rs.10 per unit. Market survey shows that the demand will be around 10000 units per year. The company has a choice of buying one of the two machines each of which has a capacity of 10000 units per year. Machine A would have fixed cost of Rs.30000 per annum and would yield profit of Rs30000 on sale of 10000 units. Machine B would have fixed cost of Rs.18000 per annum and would yield a profit of Rs.22000 per annum on sale of 10000 units. Variable costs behave linearly for both machines. Required : (10 Marks)

- i) Break even sales for each machine.
 ii) Sales level where both machines are equally profitable.
 iii) Range of sales where one machine is more profitable than the other.

- 6 a. What is a principal budget factor? (03 Marks)
 b. Mention any 7 merits of marginal costing. (07 Marks)
 c. G Ltd manufacture two products A and B. A forecast of the number of units to be sold in 1st seven month's of the year is as follows :

Month's	Product A	Product B
January	1000	2800
February	1200	2800
March	1600	2400
April	2000	2000
May	2400	1600
June	2400	1600
July	2000	1800

- It is anticipated that
 i) There will be no WIP at the end of each month.
 ii) Finished units equal to half the sales for the next month will be in stock at the end of each month (including the previous December)
 Prepare for the six month's ending 30th June a production budget for each month. (10 Marks)



- 7 a. What is activity based costing? (03 Marks)
 b. Differentiate between waste, scrap and spoilages. (07 Marks)
 c. From the following information work out the production hour rate of recovery of OH in dept A, B and C.

Particulars	Total	Production department			Service department	
		A	B	C	D	E
Rent	1000	200	400	150	150	100
Electricity	200	50	80	30	20	20
Fire Insurance	400	80	160	60	60	40
Plant depreciation	4000	1000	1500	1000	300	200
Transport	400	50	50	50	100	150
Estimated working hours	-	1000	2500	1800	-	-

Expenses of service department D and E are apportioned as follows :

	A	B	C	D	E
D	30%	40%	20%	-	10%
E	10%	20%	50%	20%	-

Use repeated distribution method. (10 Marks)

- 8 The anticipated sales of ECI Ltd is Rs.400000 @ Rs.20 per unit. The cost of direct material is Rs.9 each, of labour cost is Rs.3 per unit. The other variable cost is Rs.3 per unit. The company is earning a net profit of A and to improve profitability the following proposals were discussed in the executive committee meeting :

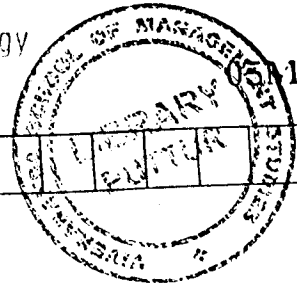
- i) The present administrative set up is on the regional basis and it was felt that centralization will reduce the fixed cost by Rs.12000.
- ii) The production manager has agreed that he will try to work on a cost reduction programme which will reduce the cost by Rs.1 per unit but there will be little impact on the quality which will be negligible to the customer.

The sales manager opposed the two proposals and suggested that it may be possible to increase the sales by 20% provided that the selling price is reduced by 5%. Alternatively if the selling price is increased by 10% the sales of number of units will be reduced by 5%.

As the finance manager, discuss in detail the various Pros and Cons of the proposals and also put forward any other proposed to improve the situation. (20 Marks)

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NEW SCHEME

Third Semester M.B.A Degree Examination, July 2007
Business Administration
Management Accounting and Control System

[Max. Marks:100]

Time: 3 hrs.]

Note : Answer any FIVE full questions.

- 1 a. Distinguish between task control and management control. (03 Marks)
b. Explain the various steps in control process. (07 Marks)
c. From the following information, prepare a statement of cost for the month of August 2006.

	1.8.2006	31.8.2006	
	Rs.	Rs.	
Raw material	30000	35000	
Work-in-progress	22000	28000	
Finished goods	2000 units	3000 units	
	at Rs. 20 per unit		
		Rs.	
Purchase of raw-material		85000	
Direct wages		55000	
Direct expenses		10000	
Works overhead		40000	
Administration overhead		20000	
Selling and distribution overhead Rs.4 per unit sold			
Sale of scrap		4000	
Sales		9000 units.	
Profit		20% on sales.	(10 Marks)

- 2 a. Distinguish between "Cost Centre and Cost unit". (04 Marks)
b. Explain the steps in "Overhead Accounting". (06 Marks)
c. Kalyan university conducts a special course on "Computer Applications" for a month during summer. For this purpose, it invites applications from graduates. An entrance test is conducted and based in the same, a final selection is made. The entrance test consists of 4 objective type examination spread over 4 days. Each candidate is charged a fee of Rs.100 for taking the entrance test. Following data is available for the year 2004 and 2005.

	2004	2005	
	Rs.	Rs.	
Gross Revenue	200000	300000	
Cost :			
Question paper and Booklets	40000	60000	
Examination and Valuation	80000	120000	
Honorarium to chief administrator	12000	12000	
General expenses	12000	12000	
Rent of the hall	16000	16000	

You are required to compute :

- i) Break even number of candidates. (10 Marks)
- ii) Number of candidates to be enrolled if a net revenue of Rs.100000 is to be received. (03 Marks)
- iii) Budgeted net revenue if 4000 candidates take up entrance test during 2006. (07 Marks)

- 3 a. Explain "Break even analysis" and "Cost-Volume-Profit" analysis. (10 Marks)
- b. Explain different types of "Cost Classifications". (03 Marks)
- c. The following information relates to a company, which has two production department and 2 service department for the month of December 2006. (07 Marks)

Particulars	Production Dept.		Service Dept.	
	A	B	X	Y
Floor Area in Sq.ft.	5000	4000	1000	2000
Assets value (Rs. in lacs)	10	5	3	1
H.P. of machines	1000	500	400	100
No. of workers	100	50	50	25
Light and Fan points	50	30	20	20

Expenses for the period were :

	Rs.
Depreciation	190000
Rent and Taxes	36000
Insurance	15200
Power	20000
Canteen Expenses	10800
Electricity	4800

Department X renders service worth Rs.12000 to Y and balance to A and B is the ratio of 3 : 2. Y renders service to A and B in 9 : 1 ratio. All the workers of department A and B have worked 25 days of 8 hours each. You are required to calculate the overhead recovery rate of production department A and B per labour hour. (10 Marks)

- 4 a. What is activity based costing? (03 Marks)
- b. What are the essential features of an efficient system of budgetary control? (07 Marks)
- c. A product passes through 2 process 'A' and 'B'. 1000 units were issued to process 'A' at a cost of Rs.20 per unit. From the following particulars prepare the process cost accounts and find out the cost per unit.

	Process	
	A	B
	Rs.	Rs.
Sundry material	10000	8000
Direct labour	8000	4000
Direct expenses	6000	2000
Overheads	11000	7850
Normal Loss	10%	15%
Scrap value per unit	10	12
Actual output in units	800	720

(10 Marks)



- 5 a. Distinguish between cost and financial audit.
 b. What is a Budget manual? What are its contents?
 c. A company working at 50% capacity has incurred the following expenditure during the year 2005.

	Rs.
Fixed expenses :	105000
Rent and taxes	122000
Depreciation	146000
Salaries and others	
Semi-variable expenses :	30000
Maintenance and repairs	124000
Indirect labour	36000
Salesmen's salary	32000
Sundry expenses	
Variable expenses :	300000
Material	350000
Labour	40000
Sales commission	1200000
Sales at 50% capacity	

It is further stated that semi-variable expenses remain constant between 35% to 65% capacity. Then increase by 10% of the above figures between 65% to 80% capacity and by 15% above 80% upto 100% capacity. Fixed expenses remain constant for all levels.

Prepare a flexible budget and find out the profit / loss when the company works at 50%, 60%, 80% and 100% capacity. (10 Marks)

- 6 a. What are the assumptions of marginal costing? (04 Marks)
 b. Explain various types of transfer pricing. (06 Marks)
 c. XYZ Ltd. Manufactures a product P, uses a standard costing system. For getting 1000 kg of finished products P, the following are the inputs:

Material	Qty in kg	Rate per kg	Total cost (Rs.)
A	800	2.50	2000
B	200	4.00	800
C	200	1.00	200
Normal loss	200	-	-
Output	1000		3000

For the month of January 2006 the following information is available :

Material	Quantity (kg)	Rate (Rs.)
A	157000	2.40
B	38000	4.20
C	36000	1.10

Actual output 200000 kg.

- You are required to calculate :
- i) Material cost variance.
 - ii) Material price variance.
 - iii) Material usage variance.
 - iv) Material mix variance.
 - v) Material yield variance.

(10 Marks)

(03 Marks)

(07 Marks)

- 7 a. What do you mean by Responsibility Accounting?
 b. Explain the functions of a cost auditor.
 c. A shop floor supervisor of a small factory presents the following cost for Job No. 240 to determine the selling price.

	Rs. Per unit
Material	70
Direct wages @ Rs.2.50 per hour (Dept.X 8 hours; Dept. Y 6 hours; Dept. Z 4 hours)	45
Special stores-direct expenses	5

Direct cost	120
	40

Total cost	160

Add 33 % for overheads

Analysis of P/L A/C for the year 2005 shows the following:

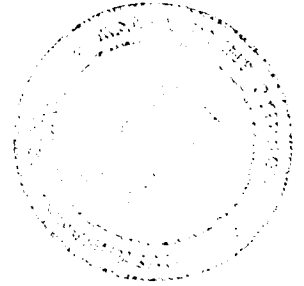
Particulars		Rs.	Particulars		Rs.
To	Direct material	150000	By	Sales	250000
To	Direct wages Dept X 10000 Dept Y 12000 Dept Z 8000	30000			
To	Special Stores	4000			
To	Production Overheads Dept X 5000 Dept Y 9000 Dept Z 2000	16000			
To	Gross Profit	50000			250000
		250000			
To	Selling expenses	20000	By	Gross profit B/F	50000
To	Net profit	30000			50000
		50000			

It is further noted that average hourly rate for all the 3 department are similar. You are required to prepare a revised job cost sheet, using 2005 actual figures as the basis by adding 20% profit on selling price. (10 Marks)

8 Case Study :

Good-Bye company Ltd. is producing and selling four products A, B, C and D. The following information is available for the year ended 31.3.2006.

Particulars	Products			
	A	B	C	D
Sales Rs.	300000	500000	250000	450000
Cost of sales	200000	450000	210000	225000
Area in sq.ft.	50000	40000	80000	30000
No. of parcel sent	100000	150000	75000	175000
No. of invoice sent	80000	140000	60000	120000



The following are the details of overheads and their bases of allocation:

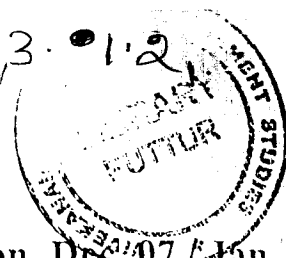
Particulars	Rs.	Bases of Allocation
Fixed overhead :		
Rent and Insurance	30000	Area in sq.ft.
Depreciation	10000	Parcel sent
Salesmen's salaries and other selling expenses	60000	Sales volume
Administration expenses	50000	Number of Invoices
Variable overhead :		
Packing expenses	Rs. 0.20 per parcel	
Stationary	Re. 0.10 per invoice	
Commission	4% on sales	

The accounts for the year discloses that product B and C are incurring loss.

You are required to :

- Prepare a statement showing allocation of fixed and variable overhead to all the products.
- A statement of profitability.
- Examine the effect of discontinuing product 'B' or 'C' or both, on the overall profitability of the firm.

(20 Marks)



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Third Semester MBA Degree Examination, Dec 07 / Jan. 08
Management Accounting and Control Systems

Time: 3 hrs.

Max. Marks: 100

- Note :** 1. Answer any **FOUR** full questions out of the first seven questions.
Q.No.8 is compulsory.
2. Show workings wherever necessary.

- 1 a. Distinguish between Direct cost and Indirect cost. (03 Marks)
 b. Write a note on Sunk cost, Imputed cost and Period cost. (07 Marks)
 c. Mr. Abhirama furnishes the following data relating to the manufacture of a standard product during the month of April 2007:

Raw materials consumed	Rs.15000
Direct labour charges	Rs. 9000
Machine hours worked	900
Machine hour rate	Rs.5
Administrative overheads	20% on works cost
Selling overheads	Re. 0.50 per unit
Units produced	17,100
Units sold	16000 at Rs.4 per unit

You are required to prepare a cost sheet from the above, showing i) the cost of production per unit; ii) profit per unit sold and profit for the period. (10 Marks)

- 2 a. What is a cost centre? (03 Marks)
 b. Distinguish between cost reduction and cost control. (07 Marks)
 c. From the information given below prepare flexible budget for 60 and 80 percent capacities, and fix the total overheads rates as a percent on direct wages at these capacities.

	At 60% capacity Rs.	At 70% capacity Rs.	At 80% capacity Rs.
Variable Overheads :			
Indirect material		7500	
Indirect labour		22500	
Semi-variable overheads :			
Electricity (40% fixed, 60% variable)		37500	
Repairs and maintenance (80% fixed, 20% variable)		3750	
Fixed overheads :			
Salaries		100000	
Insurance		5000	
Depreciation		25000	
Estimated direct wages Rs.40250 at 75% capacity.			

- 3 a. What is margin of safety? (10 Marks)
 b. Differentiate between Cost Audit and Financial Audit. (03 Marks)
 c. From the following particulars, prepare a Cost statement showing the components of Total cost and Profit for the year ended 31st December 2006. (07 Marks)
(10 Marks)

	1/1/2006 Rs.	31/12/2006 Rs.
Stock of finished goods	6000	15000
Stock of raw materials	40000	50000
Work-in-progress	15000	10000

	Rs.		Rs.
Purchase of raw materials	475000	Sales for the year	860000
Carriage inward	12500	Income tax	500
Wages	175000	Dividend	1000
Works Manager's salary	30000	Debenture interest	5000
Factory employees salaries	60000	Transfer to Sinking	
Factory rent, taxes and insurance	7250	Fund for replacement of machinery	10000
Power expenses	9500	Goodwill written off	10000
Other production expenses	43000	Payment of sales tax	16000
General expenses	32500		
Selling expenses	9250		

- 4 a. What is process costing? (03 Marks)
 b. Discuss the advantage and limitations of Marginal cost pricing. (07 Marks)
 c. Auto Bilz Ltd. Is a manufacturing company having three production departments, P1, P2 and P3 and two service departments S1 and S2. The following is the budget for December 2007.

Particulars	Total Rs.	P1 Rs.	P2 Rs.	P3 Rs.	S1 Rs.	S2 Rs.
Direct material		1000	2000	4000	2000	1000
Direct wages		5000	2000	8000	1000	2000
Factory rent	4000					
Power	2500					
Depreciation	1000					
Other overheads	9000					
Additional information :						
Area (sq. ft.)		500	250	500	250	500
Capital value (Rs. Laacs) of assets		20	40	20	10	10
Machine hours		1000	2000	4000	1000	1000
Horse power of machines		50	40	20	15	25

A technical assessment for the apportionment of expenses of service departments is as under:

	P1 %	P2 %	P3 %	S1 %	S2 %
Service Dept.S1	45	15	30	--	10
Service Dept.S2	60	35	--	5	--

Required:

- i) A statement showing distribution of overheads to various departments.
 ii) A statement showing re-distribution of service departments expenses to production departments. (10 Marks)
- 5 a. What are the objectives of transfer pricing? (03 Marks)
 b. What are the advantages of Cost Audit? (07 Marks)
 c. From the following particulars, calculate all material variances: (10 Marks)

Material	Standard		Actual	
	Qty in kgs	Price in Rs.	Qty in kgs	Price in Rs.
A	10	8	10	7
B	8	6	9	7
C	4	12	5	11
	22		24	

- 6 a. What is Activity Based Costing? (03 Marks) 5
 b. Differentiate between Budgeted costs and standard costs. (07 Marks)
 c. As newly appointed Cost Accountant, you find that the selling price of Job No.1234 has been calculated on the following basis:

	Rs.
Materials	12.08
Direct wages – 22 hours at 25 paise per hour (Department A – 10 hours, B – 4 hours, C – 8 hours)	5.50
	17.58
Plus 33(1/3)% on Prime Cost	5.86
	23.44

An analysis of previous years profit and loss account shows the following:

	Rs.		Rs.
Materials used	77500	Factory Overheads:	
Direct Wages:		A	2500
A	5000	B	4000
B	6000	C	1000
C	4000	Selling Costs	30000

You are required to i) draw up a job cost sheet; ii) calculate and enter the revised costs using the previous years figures as a basis; iii) add to the total job cost 10% for the total job cost 10% for profit and give the final selling price. (10 Marks)

- 7 a. What are assumptions of CVP analysis? (05 Marks)
 b. A product passes through three processes – A, B and C
 The details of expenses incurred on the three processes during the year 2007 were as under:

	A	B	C
Units Issued	1000		
Cost per unit (Rs.)	50		
Sundry Materials	1600	3315	3220
Labour	2600	8000	6392
Sale Price of Output (per unit)	70	100	200

Actual output of the three process was : Process A – 930 units; Process B – 540 units; Process C – 210 units.

Two –thirds of the output of Process A and one- half of the output of Process B was passed on to the next process and the balance was sold. The entire output of process C was sold.

The normal loss of the three processes, calculated on the input of every process was : Process A – 5%; Process B – 15%; Process C – 20%.

The loss of Process A was sold at Re.1 per unit, that of Process B at Rs.3 per unit. and that of Process C was sold at Rs.6 per unit.

Selling expenses were Rs.9000. These are not allocable to the processes.

Prepare three Process Accounts and the Profit and Loss A/c. (15 Marks)

- 8 Nectu Ltd. is manufacturing three household products A, B and C and selling them in a competitive market. Details of current demand, selling price and cost structure are given below:

	A	B	C
Expected demand (units)	10000	12000	20000
Selling price per unit (Rs.)	20	16	10
Variable cost per unit (Rs.)			
Direct materials (Rs.10/kg)	6	4	2
Direct labour (Rs. 15/hr)	3	3	1.50
Variable overheads	2	1	1
Fixed overhead per unit (Rs.)	5	4	2

The company is frequently affected by acute scarcity of raw materials and high labour turnover.

During the next period it is expected to have one of the following situations :

- a. Raw materials available will be only 12100 kgs.
- b. Direct labour hours available will be only 5000 hrs.
- c. It may be possible to increase sales of any one product by 25% without any additional fixed costs but by spending Rs.20000 on advertisement. There will be no shortage of materials or labour.

Suggest the best product plan in each case and the resultant profit that the company would earn according to your suggestion.

(20 Marks)

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Third Semester MBA Degree Examination, Dec 08 / Jan 09
Management Accounting and Control Systems

8

Time: 3 hrs.

Max. Marks:100

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

- 1 a. What are the elements of cost? (03 Marks)
 b. Distinguish between product cost and period cost. Why is it considered important? (07 Marks)
 c. The cost of sale of product ABB is made up as follows :

	Rs.
Materials used in manufacturing	60,000
Materials used in primary packing	10,000
Materials used in selling the product	1,500
Materials used in the factory	750
Materials used in the office	1,250
Labour required in producing	10,000
Labour required for factory supervision	2,000
Indirect Expenses – Factory	1,000
Administration Expenses	1,250
Depreciation on Office Building and Equipment	750
Depreciation on Factory Building	1,750
Selling Expenses	3,500
Freight on materials purchased	5,000
Advertising	1,250

Assuming that all the products manufactured are sold, what should be the selling price to obtain a profit of 20% on selling price? (10 Marks)

- 2 a. What is Cost Pool and Cost Driver? (03 Marks)
 b. State the significance of computing Materials Cost Variance, Materials Usage Variance. (07 Marks)
 c. East and West enterprises is currently working at 50% capacity and produces 10,000 units. Estimate the profits of the company when it works at 60% and 70% capacity.
 At 60% capacity the raw material cost increases by 2% and the selling price falls by 3%.
 At 70% capacity the raw material cost increases by 4% and the selling price falls by 5%.
 At 50% capacity working the product costs Rs.180 per unit and is sold at Rs.200 per unit.
 The unit cost of Rs. 180 is made up as follows : (10 Marks)

Material	Rs. 100
Wages	Rs. 30
Factory Overheads	Rs. 20 (40% fixed)
Administration Overheads	Rs. 30 (50% fixed)

- 3 a. What is Job Costing? (03 Marks)
 b. State the difference between allocation and apportionment of overheads. (07 Marks)

- c. From the following information work out the production hour rate of recovery of overheads in departments P1, P2 and P3 :

Particulars	Total Rs.	Production Departments			Service Departments	
		P1 Rs.	P2 Rs.	P3 Rs.	S1 Rs.	S2 Rs.
Rent	1,000	200	400	150	150	100
Electricity	200	50	80	30	20	20
Fire Insurance	400	80	160	60	60	40
Plant depreciation	4,000	1,000	1,500	1,000	300	200
Transport	400	50	50	50	100	150
Estimated working hours		1,000	2,500	1,800		

Expenses of Services Department S1 and S2 are apportioned as under : (10 Marks)

	P1	P2	P3	S1	S2
S1	30%	40%	20%	---	10%
S2	10%	20%	50%	20%	---

- 4 a. Give three ways in which P/V Ratio can be improved. (03 Marks)
 b. What is Cost Audit? Explain the scope of Cost Audit. (07 Marks)
 c. A product is finally obtained after it passes through three distinct processes. The following information is available from the cost records.

	Process I (Rs.)	Process II (Rs.)	Process III (Rs.)	Total (Rs.)
Materials	2,600	2,000	1,025	5,625
Direct Wages	2,250	3,680	1,400	7,330
Production Overheads	---	---	---	7,330

500 units @ Rs. 4 per unit were introduced in process I. Production overheads are absorbed as a percentage of direct wages.

The actual output and normal loss of the respective processes are given below :

	Output (Units)	Normal Loss as a percentage of input	Value of scrap (per unit)
Process I	450	10%	Rs. 2
Process II	340	20%	Rs. 4
Process III	270	25%	Rs. 5

Prepare the process account and the abnormal gain / loss account. (10 Marks)

- 5 a. What are the assumptions of Marginal Costing? (03 Marks)
 b. Explain the various types of transfer pricing. (07 Marks)
 c. The standard material required to manufacture one unit of product X is 10kgs and the standard price per kg of material is Rs. 25. The cost accounts records, however, reveal that 11,500 kgs of material costing Rs. 2, 76,000 were used for manufacturing 1,000 units of product X. Calculate material variances. (10 Marks)

- 6 a. What is Sunk Cost? Give examples. (03 Marks)
 b. Briefly explain the stages involved in Activity Based Costing System. (07 Marks)
 c. The following information is extracted from the job ledger in respect of Job No. 123 :

Material Rs. 3,400

Wages : Dept. A : 80 hours at Rs. 2.50 per hour

Dept. B : 60 hours at Rs. 4 per hour.

Variable overheads : Dept. A : Rs. 5,000 for 4,000 direct hours

Dept. B : Rs. 6,000 for 3,000 direct hours.

Fixed overheads : Rs. 7,500 for 10,000 hours of normal working time of the factory.

Calculate the cost of Job No. 123 and estimate the percentage of profit if the price quoted is Rs 4,750. (10 Marks)

- 6 a. What is cost variance? Is it different from statistical variance σ^2 ? (03 Marks)
- b. A factory uses a job costing system. The following data are available from the books at the year ended 31st March 2007.

	Rs.
Direct Materials	900000
Direct wages	750000
Profit	609000
Selling and Administrative overhead	525000
Administrative overhead	420000
Factory overhead	450000

- i) Prepare a cost sheet indicating the prime cost, works cost, production cost, cost of sales and sales value.
- ii) In the subsequent year, the factory has received an order for number of jobs. It is estimated that the direct materials would be Rs.1200000 and direct labour would cost Rs.750000. What would be the price for these jobs if the factory intends to earn the same rate of profits on sales, assuming that the selling and distribution overheads has gone up by 15%. The factory recovers factory overhead as a percentage of direct wages and administrative and selling and distribution overhead as a percentage of works cost, based on the cost rates prevalent in the previous year. (07 Marks)
- c. Vivek elementary school has a total of 150 students consisting of 5 sections with 30 students per section. The school plans for a picnic around the city during the weekend to places such as zoo, amusement park, planetarium etc. A private transport operator has come forward to lease out the buses for taking the students. Each bus will have a maximum capacity of 50 (excluding 2 seats reserved for teachers accompanying students). The school will employ two teachers for each bus, paying them an allowance of Rs.50 per teacher. It will also lease out the required number of buses. The following are the other cost estimates:

	Cost per student (Rs.)
Break fast	5
Lunch	10
Tea	3
Entrance fee at zoo	2
Rent	650 per bus
Special permit fee	50 per bus
Block entrance fee at the planetarium	250
Prizes to students for games	250

No costs are incurred in respect of teachers (except the allowances of Rs.50 per teacher). You are required to prepare: i) A flexible budget estimating the total cost for the levels of 30, 60, 90, 120 and 150 students. Each item of the cost is to be indicated separately.

- ii) Compare the average cost per student at these levels. (10 Marks)
- 7 a. What do you understand from angle of incidence? (03 Marks)
- b. The following data are available pertaining to a product after passing through two processes A and B: Output transferred to process C from Process B, 9120 units for Rs.49263; Expenses incurred in process C; Sundry materials Rs.1480; Direct labour Rs.6500; Direct expenses Rs.1605. The wastage of process C is sold at Re.1.00 per unit. The overhead charges were 168% of direct labour. The final product was sold at Rs.10.00 per unit fetching a profit of 20% on sales. Find the percentage of wastage in process C and prepare process C account. (07 Marks)
- c. A company has three production departments A, B and C and two service department X and Y. The following data are extracted from the records of the company for a particular given period:

	Rs.
Rent and rates	25000
General lighting	3000
Indirect wages	7500
Power	7500
Depreciation on machinery	50000
Sundries	50000

Additional data Departmentwise

	Total	Departments				
		A	B	C	X	Y
Direct wages (Rs)	50000	15000	10000	15000	7500	2500
HP of machines used	150	60	30	50	10	-
Cost of machinery (Rs.)	1250000	300000	400000	500000	25000	25000
Production hours worked	-	6226	4028	4066	-	-
Floor space (sq.mt.)	10000	2000	2500	3000	2000	500
Lighting point (no.)	60	10	15	20	10	5

Service department expenses allocation

Department	A	B	C	X	Y
X	20%	30%	40%	-	10%
Y	40%	20%	30%	10%	-

You are required to

- Compute the overhead rate of production departments using repeated distribution method.
- Hence, determine the total cost of a product whose direct materials cost and direct labour cost are respectively Rs.250 and Rs.150 and which would consume 4 hours, 5 hours and 3 hours in departments A, B and C respectively. **(10 Marks)**

- 8 A company engaged in plantation activities has 200 hectares of virgin land which can be used for growing jointly or individually tea, coffee and cardamom. The yield per hectare of the different crops and their selling price per kg are as under:

	Yield (kgs)	Selling price (Rs. per kg)
Tea	2000	20
Coffee	500	40
Cardamom	100	250

The relevant costs data are given below:

- i) Variable cost per kg:

	Tea (Rs.)	Coffee (Rs.)	Cardamom (Rs.)
Labour charges	8	10	120
Packing materials	2	2	10
Other costs	4	1	20
Total costs	14	13	150

- ii) Fixed costs per annum:

	Rs.
Cultivation and growing cost	1000000
Administrative cost	200000
Land revenue	50000
Repairs and Maintenance	250000
Other costs	300000
	1800000

The policy of the company is to produce and sell all kinds of products and the maximum and minimum are to be cultivated per product is as follows:

	Maximum area (hectares)	Minimum area (hectares)
Tea	160	120
Coffee	50	30
Cardamom	30	10

- Calculate: a. The priority of production. **(08 Marks)**
 b. Most profitable product mix. **(06 Marks)**
 c. The maximum profit that can be achieved. **(06 Marks)**

- 7 a. What is Budget Manual? (03 Marks)
- b. Bring out clearly the scope and significance of Cost Center, Profit Center and Investment Center. (07 Marks)
- c. The following data relates to XYZ Ltd., which makes and sells computers.

Production	1,00,000 units
Sales	80,000 units
	Rs.
Selling price / unit	15
Direct Materials	2,50,000
Direct Labour	3,00,000
Factory overheads :	
Variable	1,00,000
Fixed	2,50,000
Selling and distribution overheads :	
Variable	1,00,000
Fixed	2,00,000

You are required to present income statement using (a) absorption costing and (b) marginal costing. Account briefly for the difference in net profit between the two income statements. (10 Marks)

- 8 From the following particulars of KEERTI Ltd., find :
- a. The most Profitable Product Mix.
- b. Prepare a Statement of Profitability of the Product Mix :

	Product A	Product B	Product C
Units budgeted to be produced and sold	1,800	3,000	1,200
Selling price per unit Rs.	60	55	50
Requirement per unit :			
Direct Materials	5 kgs.	3 kgs.	4 kgs.
Direct Labour	4 hrs	3 hrs	2 hrs
Variable Overhead	Rs. 7	Rs. 13	Rs. 8
Fixed Overhead	Rs. 10	Rs. 10	Rs. 10
Cost of Direct Material per kg.	Rs. 4	Rs. 4	Rs. 4
Direct Labour Hour Rate	Rs. 2	Rs. 2	Rs. 2
Maximum Possible Units of Sales	4,000	5,000	1,500

All the three products are produced from the same direct material using the same type of machines and labour. Direct labour, which is the key factor, is limited to 18,600 hours.

(20 Marks)

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05MBA32

Third Semester MBA Degree Examination, June-July 2009 Management Accounting and Control System

Time: 3 hrs.

Max. Marks:100

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

- 1 a. What is Margin of safety? (03 Marks)
 b. Explain imputed cost, out of pocket cost, relevant cost, sunk cost. (07 Marks)
 c. From the following particulars, prepare a cost sheet for the year ended 31.12.2002. (10 Marks)

	Rs		Rs
Stock of finished good (1.1.2002)	6,000	Wages	1,75,000
Stock of raw materials(1.1.2002)	40,000	Work Manager's salary	30,000
Work – in – progress (1.1.2002)	15,000	Factory employees salary	60,000
Purchase of raw materials	4,75,000	Power expenses	9,500
Carriage inwards	12,500	General expenses	32,500
Factory, rent, taxed	7,250	Sales for the year	8,60,000
Other production expenses	43,000	Work – in – progress (31.12.2002)	10,000
Stock of goods (31.12.2002)	15,000		
Stock of raw materials	50,000		

- 2 a. Explain the difference between allocation of overhead, apportionment of overhead. (03 Marks)
 b. Discuss different stages involved in Activity Based Costing. (07 Marks)
 c. What is meant by CVP analysis? Briefly explain the assumptions and uses of CVP analysis. (10 Marks)

- 3 a. What is Full – cost pricing? (03 Marks)
 b. BB Ltd. is a manufacturing co. having three production departments A, B and C and two service depts. X and Y. The following is the budget for December 2004.

	Total (Rs)	A. (Rs)	B (Rs)	C (Rs)	X (Rs)	Y (Rs)
Direct Material	-	1,000	2,000	4,000	2,000	1,000
Direct Wages	-	5,000	2,000	8,000	1,000	2,000
Factory rent	4,000					
Power	2,500					
Depreciation	1,000					
Other OH	9,000					
Additional Information :						
Area (Sq.ft.)		500	250	500	250	500
Capital value of assets (Rs. in lakh)		20	40	20	10	10
Machine hours		1,000	2,000	4,000	1,000	1,000
Horse power of machines		50	40	20	15	25

A technical assessment of the apportionment of expenses of service departments is as under:

	A	B	C	X	Y
Service dept X	45%	15%	30%	-	10%
Service dept Y	60%	35%	-	5%	-

- Required : i) A statement showing distribution of OHS to various departments.
 ii) A statement showing re-distribution of service departments expenses to production depts. (07 Marks)

- c. A product passes through three processes A, B and C. The normal wastage of each process is as follows : Process A – 3%, B – 5% and C – 8%. Wastage of process A was sold at 25 paise p.u that of process B at 50p. p.u and that of process C at Re. 1 p.u. 10,000 units were issued to process A in the beginning of October 2005 at a cost of Re.1 p.u. The other expenses were as follows :

	Process A	Process B	Process C
Sundry materials	Rs. 1,000	Rs. 1,500	Rs. 500
Labour	5,000	8,000	6,500
Direct expenses	1,050	1,188	2,009
Actual output	9,500 units	9,100 units	8,100 units

Prepare the process accounts assuming that there were no opening or closing stocks. Also give the abnormal wastage and abnormal gain A/c's. (10 Marks)

- 4 a. What is the difference between cost control and cost reduction? (03 Marks)
 b. Explain the steps that are to be taken for rational decision – making. (07 Marks)
 c. From the following data, calculate :
 i) Break even point expressed to amount of sales in rupees.
 ii) No. of units that must be sold to earn a profit of Rs. 1,20,000 per year.
 iii) How many units are to be sold to earn a net income of 15% of sales? (10 Marks)

	Rs.
Selling price p.u.	40
Variable manufacturing cost p.u	22
Variable selling cost p.u	3
Fixed factory OH	1,60,000
Fixed selling cost	20,000

- 5 a. Mention any three advantages of budgeting. (03 Marks)
 b. What are different types of functional budgets? Which are prepared by a large scale manufacturing concern? Explain and illustrate. (07 Marks)
 c. For production of 10,000 electrical automatic irons, the following are the budgeted expenses: (10 Marks)

	Per Unit
Direct Materials	Rs. 60
Direct Labour	Rs. 30
Variable overheads	Rs. 25
Fixed overheads (Rs. 1,50,000)	Rs. 15
Variable expenses (direct)	Rs. 5
Selling expenses (10% fixed)	Rs. 15
Administration expenses (Rs. 50,000 fixed)	Rs. 5
Distribution expenses (20% fixed)	Rs. 5
Total cost of sale per unit	160

Prepare a budget for production of 6,000 ; 7,000 and 8,000 irons, showing distinctly marginal cost and total cost.

- 6 a. What is responsibility accounting? (03 Marks)
 b. Explain the classification of overhead variance. (07 Marks)
 c. From the following particulars compute : i) Materials cost variance ii) Material price variance iii) Material usage variance. (10 Marks)

Quantity of materials purchased :	3,000 units
Value of materials purchased :	Rs. 9,000
Standard quantity of materials required per tonne of output :	30 units
Standard rate of material :	Rs. 2.50 p.unit
Opening stock of materials	Nil
Closing stock of materials	500 units
Output during the period :	80 tonnes

- 7 a. Define cost audit. How it is different from financial audit. (03 Marks)
 b. Hind General corporation produces only one product which has the following cost.

Variable manufacturing costs	Rs. 4 per unit
Fixed manufacturing costs	Rs. 2,00,000 per year

The normal capacity is set at 2,00,000 units There are no work – in - progress inventories In 2001, the company produced 2,00,000 units and sold 90% of them at a price of Rs. 7 per unit. In 2002, the company produced 2,10,000 units and sold 2,15,000 units at the same price. You are required to prepare income statements for 2001 and 2002 based on absorption costing and marginal costing. (07 Marks)

- c. Explain the various tools and techniques for cost reduction. (10 Marks)
- 8 A company proposes to install a machine for the manufacture of a component which at present is being purchased at Rs. 24 each. There are two alternatives, namely i) installation of an automatic machine and ii) installation of a semi – automatic machine. The details of the machines are as under :

	Automatic machine	Semi – automatic machine
Initial cost of the machine	Rs. 9,00,000	Rs. 6,00,000
Life (years)	10	10
Fixed overheads other than depreciation on machines (p.a)	1,62,000	84,000
Variable expenses of the components	12	15

The company charges depreciation on straight line method. Scrap value o f the machine at the end of life is nil. The demand for the components at present is 20,000 units per annum. This demand is expected to increase to 40,000 units.

Required :

- a. For each of the two volumes of output, namely 20,000 and 40,000 units, state with supporting calculations whether the components should be purchased or manufactured by installation of machine. If your decision is in favour of installation of machine, which model do you advise?
- b. What volume of output should the company change over from purchase of components to manufacture by installation of i) Semi – automatic machine and ii) Automatic machine.
- c. At what volume of manufacture of the components will the company switch over from installation of one type of machine to the other? (20 Marks)

Third Semester MBA Degree Examination, Dec.09/Jan.10
Management Accounting and Control Systems

Time: 3 hrs.

Max. Marks:100

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

- 1 a. List any six tools and techniques of cost reduction. (03 Marks)
b. Briefly explain the different methods of pricing. (07 Marks)
c. Discuss various costs used in decision making and explain their characteristics. (10 Marks)
- 2 a. What is the difference between absorption costing and marginal costing? (03 Marks)
b. Compare and contrast cost control and cost reduction. (07 Marks)
c. Auto Parts Ltd. has an annual production of 90000 units for a motor component. The components cost structure is as below:

	Rs.
Materials	270 per unit
Labour (25% Fixed)	180 per unit
Expenses:	
Variable	90 per unit
Fixed	135 per unit
Total	675 per unit

- i) The purchase manager has an offer from a supplier who is willing to supply the components at Rs.540. Should the component be purchased and production stopped?
ii) Assume the resources now used for the component's manufacture are to be used to produce another new product for which the selling price is Rs.485.

In the latter case, the material price will be Rs.200 per unit. 90000 units of this product can be produced on the same cost basis as above for labour and expenses. Discuss whether it would be advisable to divert the resources to manufacture the new product, on the footing that the component presently being produces would, instead of being produced, be purchased from the market. (10 Marks)

- 3 a. What is the difference between cost audit and financial audit? (03 Marks)
b. Which are the different types of responsibility centres? Explain their significance in management control systems. (07 Marks)
c. A single product company sells its product at Rs.60 per unit. In 2006, the company operated at a margin of safety of 40%. The fixed costs amounted to Rs.360000 and the variable cost ratio to sales was 80%. In 2007, it is estimated that the variable costs will go up by 10% and the fixed costs will increase by 5%. Find the selling price required to be fixed in 2007 to earn the same P/V ratio as in 2006. Assuming the same selling price of Rs.60 per unit is 2007, find the number of units required to be produced and sold to earn the same profit as in 2006. (10 Marks)
- 4 a. How activity based costing different from traditional costing? (03 Marks)
b. Explain and compare the terms management control, operational control and task control. (07 Marks)
c. The books of Adarsh Manufacturing Company present the following data for the month of April 2008.

- Direct labour cost Rs.17500 being 175% of works overhead.
- Cost of goods sold excluding administrative expenses - Rs.56000.

Inventory accounts showed the following opening and closing balances:

	April 1	April 30
Raw materials	Rs.8000	Rs.10600
Work in progress	Rs.10500	Rs.14500
Finished goods	Rs.17600	Rs.19000

Q4 (c) Contd....

Other data are: Selling expenses - Rs.3500 ; General and administrative expenses - Rs.2500 ; Sales for the month - Rs.75000.

You are required to

- i) Prepare the value of material purchased.
 - ii) Prepare a cost statement showing the various elements of cost and also profit earned. (10 Marks)
- 5 a. What is flexible budgeting? (03 Marks)
- b. The production department of a factory furnishes the following information for the month of October:
- | | |
|----------------------------|----------|
| Materials used | Rs.54000 |
| Direct wages | Rs.45000 |
| Overheads | Rs.36000 |
| Labour hours worked | 36000 |
| Hours of machine operation | 30000 |
- For an order executed by the department, during the period, the relevant information was as under:
- | | |
|----------------------------|-----------|
| Materials used | Rs.600000 |
| Direct wages | Rs.320000 |
| Labour hours worked | 3200 |
| Hours of machine operation | 2400 |
- Calculate the overhead charges chargeable to the job by the following methods:
- i) Direct materials cost percentage rate.
 - ii) Labour hour rate.
 - iii) Machine hour rate. (07 Marks)
- c. Js limited used a full standard cost system with raw material inventory carried at standard. The following data were taken from the records of the company for the year ended 31.12.2007.

	Rs.
Opening raw material inventory	300
Closing raw material inventory	250
Net purchases	410
Material price variances	10 A
Material usage variance	20 A
Direct labour cost (Actual)	900
Direct labour cost (Standard)	840
Actual overhead incurred	875
Overhead cost variance	45 F
Opening W.I.P inventory	120
Closing W.I.P inventory	140
Opening finished goods inventory	360
Cost of goods sold reported	2240

You are required to compute:

- i) Raw material purchases at standard.
- ii) Raw material consumed at standard.
- iii) Raw material consumed at actuals.
- iv) Labour cost variance.
- v) Standard cost variance.
- vi) Total manufacturing cost at standard cost.
- vii) Cost of goods manufactured.
- viii) Cost of products sold to customers.
- ix) Closing finished goods inventory. (10 Marks)

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08MBA32

Third Semester MBA Degree Examination, Dec.09/Jan.10
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. Define task control. (03 Marks)
b. Define management control and explain various steps in control process. (07 Marks)
c. The following particulars have been extracted from Mayur Engineering Works for the year ending 31.3.2008.

Particulars	Production department			Service department	
	A	B	C	X	Y
Direct wages (Rs)	30,000	45,000	60,000	15,000	30,000
Direct materials (Rs)	15,000	30,000	30,000	22,500	22,500
Staff number	1,500	2,250	2,250	750	750
Electricity (kwh)	6,000	4,500	3,000	1,500	1,500
Asset value (Rs)	60,000	40,000	30,000	10,000	10,000
Light points	10	16	4	6	4
Area (square meters)	150	250	50	50	50

The expenses for the period were as follows:

Power	Rs.1100	Lighting	Rs.200
Stores overhead	Rs.800	Welfare to staff	Rs.3,000
Depreciation	Rs.30,000	Repairs	Rs.6000
General overheads	Rs.12,000	Rent and taxes	Rs.550

Apportion the expenses of service department X in the ratio of 5:3:2 and that of department Y in proportion to direct wages to department A, B and C respectively. You are required to prepare an overhead distribution summary. (10 Marks)

- 2 a. What is MBO? (03 Marks)
b. Discuss the various costs used in decision making. (07 Marks)
c. A factory is engaged in making non-standard products to customers specifications. It processes all production through three departments. The cost figures of the factory for the month of March 2008 are furnished below:

Nature of expenses	Total expenses Rs	Departments		
		A	B	C
Direct materials	18,600	7,500	6,400	4,700
Labour	15,000	6,000	5,000	4,000
Total overhead expenses	<u>7,500</u>	<u>3,000</u>	<u>2,500</u>	<u>2,000</u>
	<u>41,100</u>	<u>16,500</u>	<u>13,900</u>	<u>10,700</u>

Prepare a simple cost sheet for product x and y on the basis of data furnished below.

Product	Cost element	Expenses incurred in		
		Dept. A	Dept. B	Dept. C
x	Direct material	100	200	30
x	Direct labour	50	60	70
y	Direct material	50	90	140
y	Direct labour	70	60	80

(10 Marks)

- 3 a. What is period cost? (03 Marks)
 b. What is process costing? How it is different from job costing? (07 Marks)
 c. A product passes through two processes. The output of process I becomes the input of process II and the out put of process II is transferred to warehouse as end product. The quantity of raw materials introduced into process I is 20,000 kg at Rs. 10 per kg. The cost and output data for the month under review are as under:

	Process I	Process II
Direct materials	Rs.60,000	Rs.40,000
Direct labour	Rs.40,000	Rs.30,000
Production overhead	Rs.39,000	Rs.40,250
Normal loss	8%	5%
Output	kg 18,000	kg 17,400
Loss realization of Rs/unit	Rs.2.00	Rs.3.00

The company's policy is to fix the selling price of the end product in such a way as to yield a profit of 20% on selling price. You are required to prepare process accounts and determine the selling price per unit of the end product. (10 Marks)

- 4 a. What is CVP analysis? (03 Marks)
 b. What is transfer pricing? Explain the methods of transfer pricing. (07 Marks)
 c. A company which manufactures plastic toys has the following data:

Material	- Rs.80
Labour	- Rs.60
Variable cost	- Rs.40

Fixed overheads amount to Rs.2.80 lakhs per year. Selling price of the plastic toy is Rs.250

- i) Determine the number of plastic toys to be manufactured and sold in a year to break even.
 ii) How many plastic toys have to be made and sold to make a profit of Rs.70,000 per year?
 iii) If the sales price is reduced by Rs.20, how many plastic toys have to be sold to break even? (10 Marks)

- 5 a. What is activity based costing? (03 Marks)
 b. What is cost audit? What are the objectives and advantages of cost audit? (07 Marks)
 c. A pen manufacturer desired to manufacture three models of pen as super model, deluxe model and basic model. He wants to fix the price of Rs.20 for super model, Rs.15 for deluxe model and Rs.10 for basic model. He plans to allow 25% discount to wholesaler and retailers.

The estimated fixed cost would be Rs.75,000 and the variable cost per unit comes to Rs.5.

- i) Calculate the break even point for each type of pen.
 ii) How many pens the manufacturer should sell in order to make a profit of Rs.25000? (10 Marks)

- 6 a. What is variance analysis? (03 Marks)
 b. Distinguish between standard costing and budgetary control. (07 Marks)
 c. From the data given below, calculate the material price variance, the material usage variance and the material mixture variance. Consumption per 100 units of product:

Material	Standard	Actual
A	40 units @ Rs.50 per unit	50 units @ Rs.50 per unit
B	60 units @ Rs.40 per unit	60 units @ Rs.45 per unit

(10 Marks)

- 7 a. Distinguish between allocation and apportionment of overheads. (03 Marks)
 b. Define cost control and cost reduction. Distinguish between the two. (07 Marks)
 c. Gemini steel limited manufactures a single product for which market demand exists for additional quantity. Present sales of Rs.60,000 per month utilizes only 60% capacity of the plant. Marketing manager assures that with the reduction of 10% in the selling price he would be in a position to increase the sale by about 25% to 30%..
 The following data are available:

i) Selling price	Rs.10 per unit
ii) Variable cost	Rs.3 per unit
iii) Semivariable cost	Rs.6000 fixed + 50 paise per unit
iv) Fixed cost	Rs.20,000 at present level estimated to be Rs.24,000 at 80% output.

You are required to prepare a statement showing the operating profits at proposed selling price at 60%, 70% and 80% levels. (10 Marks)

8 Compulsory

The cost per unit of the products A, B and C of M/S. Thomas limited is as follows:

	A	B	C
	Rs.	Rs.	Rs.
Direct materials	10	8	9
Direct labour	6	7	6
Variable expenses	4	5	3
Fixed expenses	3	3	2
Total cost	23	23	20
Profit	9	7	6
Selling price	32	30	26
No. of units produced	10,000	5,000	8,000

Production arrangements are such that if one producer is given up, the production of the others can be raised by 50%. The directors propose that 'C' should be given up because the contribution in that case is lowest. Do you agree? What is your suggestion?

Analyze:

- Product A is given up and B and C are produced.
- Product B is given up and A and C are produced.
- Product C is given up and A and B are produced.
- Your conclusion?

(20 Marks)

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Sri Vas Institute of Technology
Library, Mysore

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 Ld. 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

Administration overheads = Rs. 116000

Factory overheads = Rs. 105000

Direct wages = Rs. 175000

Selling & distribution overheads = Rs. 94500

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>		Office furniture	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 from the two departments A and B of Salim Leather Products Ltd.

	<u>Department A</u>	<u>Department B</u>
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 31st 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	7,30,000	
Administration overheads		1,40,000	
Selling & distribution overhead:			
Sales commission (2% of sales)		20,000	
Delivery costs (variable)		50,000	
Fixed costs		40,000	9,80,000
	Profit		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 no 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)

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08MBA32

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. Q.No. 8 is compulsory.**

- 1 a. What is a profit center? (03 Marks)
 b. Explain the costs used for managerial decision making and planning. (07 Marks)
 c. From the following particulars prepare cost sheet showing :
 i) Prime cost (10 Marks)
 ii) Works cost iii) Cost of production iv) Profit.

Stock as on 01.01.08	
Raw Materials	Rs. 30,000
WIP	22,500
Stock as on 31.12.08	
Raw Materials	Rs 22,500
WIP	7,500
Purchases of materials	2,40,000
Carriage inwards	7,500
Carriage outwards	15,000
Wages	45,000
Sales	4,50,000
Salesman Salary	12,000
Power	
Factory	13,500
Office	1,500
Rent and taxes	
Sales Office	2,400
Administrative office	9,600
Salary to office staff	12,000
Printing and Stationary	6,000
Sale of scrap	4,500
Advertising Expenses	22,500
Sales commission	18,000

- 2 a. What is cost audit? How is it different from financial audit? (03 Marks)
 b. How do you classify overheads? Explain in brief. (07 Marks)
 c. M/s J.K. Engineering Lts., has three production departments X, Y, Z and two service department S₁ and S₂. The following figures are extracted from the books of company.

Rent and taxes	Rs 5,000
Indirect wages	1,500
Depreciation on M/c	10,000
General lighting	600
Power	1,500
Employee Insurance	10,000

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification appeal to evaluator and /or equations written eg, 42+8 = will be treated as malpractice.

The following further details are available :

	X	Y	Z	S ₁	S ₂
Floor Area (Sq.ft)	2000	2500	3000	2000	500
Light points	10	15	20	10	5
Wages	3000	2000	3000	1500	500
HP of M/C	60	30	50	10	-
Value of M/C	60,000	80,000	1,00,000	5,000	5,000
Working hours	6185	4025	4060	-	-

The expenses of S₁ and S₂ allocated as follows :

	X	Y	Z	S ₁	S ₂
S ₁	20%	30%	40%	-	10%
S ₂	40%	20%	30%	10%	-

Work out the labour hour rate of each production dept.

(10 Marks)

- 3 a. What is activity based costing? (03 Marks)
 b. What are the assumptions and uses of marginal costing? (07 Marks)
 c. A shop floor supervisor of a small factory presents the following cost data for Job No. B402. Determine correct selling price of the job.

Materials	250
Direct wages 20hrs @ Rs 10/hr (Dept X -8hrs, Dept Y – 6hrs, Dept Z – 6hrs)	200
Direct Expenses	30
Prime cost	480
Overhead 33 1/3% on prime cost	160
Total cost	640
Profit (25% on selling price)	160
Selling price	800

Profit and Loss account for the previous year discloses the following :

(10 Marks)

To Material	6,00,000	By, Sales	10,00,000
To Direct wages			
Dept X – 45,000			
Dept Y – 50,000			
Dept Z - 30,000	1,25,000		
To Direct expenses	25,000		
To Production overheads			
Dept X – 15,000			
Dept Y – 25,000			
Dept Z - 10,000	50,000		
To Gross profit	2,00,000		
To Selling Expenses	50,000		
To Net profit	1,50,000		

- 4 a. Distinguish between job costing and process costing. (03 Marks)
 b. Explain the various techniques used for cost reduction. (07 Marks)
 c. The product of a company passes through three processes ABC. From the past experience it is ascertained that normal wastages incurred in Process is A – 2%, Process B – 5%, Process C – 10%. The wastages of processes A and B is sold at Rs 10. per 100 units and that of process C at Rs 80 per 100 units.

Following is the information regarding the production of March 2009.

	Process 'A'	Process 'B'	Process 'C'
Materials	Rs. 12,000	8,000	4,000
Direct wages	Rs. 16,000	12,000	6,000
Machine Exp.	Rs. 2,000	2,000	3,000
Other Factory Exp.	Rs. 3,500	3,800	4,200

20,000 units have been issued to Process A at a cost of Rs. 20,000. The output of each process has been Process A – 19,500 units, Process B – 18,800 units, Process C – 16,000 units. There was no stock on WIP in any process in beginning and in the end of March 2009. Prepare process accounts. (10 Marks)

- 5 a. What do you mean by Transfer pricing? (03 Marks)
 b. Compare and contrast standard costing and budgetary control. (07 Marks)
 c. If sales price – Rs 20/unit ; Variable Manufacturing cost – Rs 11/unit ; Variable Selling cost – Rs 3/unit ; Fixed factory overheads – Rs 5,40,000 per year ; Fixed selling cost – Rs 2,52,000 per year, compute :
 i) BEP in amount of sales in rupees ii) No. of units that must be sold to earn a profit of Rs 60,000. (10 Marks)
- 6 a. Distinguish between absorption costing and marginal costing. (03 Marks)
 b. Explain the advantages and limitations of MBO. (07 Marks)
 c. The expenses budget for production of 10,000 units in a factory are given below :

	Per Unit
Materials	Rs. 70
Labour	Rs. 25
Variable overheads	Rs 20
Fixed overheads	Rs 10 (Rs. 1,00,000 fixed)
Direct variable expenses	Rs 5
Selling expenses	Rs 13 (10% fixed)
Distribution expenses	Rs 7 (20% fixed)
Administrative expenses	Rs 5 (Rs 50,000 fixed)

 Rs 155

Prepare a flexible budget for production of 6000 and 8000 units. Fixed overheads and Administration expenses are fixed for all levels of production. (10 Marks)

- 7 a. What are the assumptions of CVP analysis? (03 Marks)
 b. Explain the scope and advantages of cost audit. (07 Marks)

c. The standard cost card for a product shows :

Material cost : 2 kgs @ Rs. 2.50 each Rs 5 per unit

Wages : 2 hours @ Rs 0.50 each Rs 1 per unit.

The actual data emerged from the operations are

Material consumed : 16,500 kgs @ Rs. 2.40 each.

Wages paid : 18,000 hours @ Rs. 0.40 each.

Production units are 8000.

Calculate appropriate material and labour cost variances.

(10 Marks)

8 A Factory produces 24,000 units and the cost sheet gives the following information :

Direct Material	1,20,000
Direct Wages	84,000
Variable overheads	48,000
Semi variable overheads	28,000
Fixed overheads	80,000
Total cost	3,60,000

The product is sold at Rs 20 per unit. Existing sales volume is 24,000 units. The management proposes to increase the production by 3000 units for sales in foreign market. It is estimated that the semi variable overheads increase by Rs. 1000. But the product will be sold at Rs. 14 per unit in the foreign market.

However no additional capital expenditure will be incurred, management seeks your advice as a cost accountant.

You are required to :

- calculate the existing profits of the company.
- calculate total profits if foreign order is accepted.
- specify your assumption with respect to foreign order.
- advise the company.

(20 Marks)
