

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 600 086.
(For candidates admitted during the academic year 2004-05 & thereafter)

SUBJECT CODE : **CM/MO/CC44**

B.Com. DEGREE EXAMINATION APRIL 2009
COMMERCE
FOURTH SEMESTER

COURSE : **MAJOR – OPTIONAL**
PAPER : **COST CONTROL**
TIME : **3 HOURS** **MAX. MARKS : 100**

SECTION – A

ANSWER ALL QUESTIONS: (10 x 3 = 30)

1. What are the objectives of budgets?
2. State the importance of control.
3. What is Key-factor?
4. A Company buys its annual requirement of 36000 units in 6 instalments. Each Unit cost Re.1/- and ordering cost is Rs.256/-. The inventory carrying cost is estimated at 20% of unit value. Find EOQ & the number of orders.
5. Component A is used as follows:

Normal usage	50 units/week
Minimum usage	25 units/week
Maximum usage	75 units/week
Reorder Quantity	400 units
Reorder Period	4-6 weeks

Calculate a) Minimum level, b) Maximum level.
6. From the following data calculate:
Break-even point expressed in sales rupees.

Selling price	Rs.20 per unit
Variable manufacturing cost	11 per unit
Variable selling cost	3 per unit
Fixed costs	2 50 000 per year.
7. From the following information compute the cost of inventory -
EOQ – 1000 units
Annual requirement 6000 units
Ordering cost Rs.150 per order
Carrying cost 2% of inventory value
Cost per unit of material Rs.2.

8. Information at 60% level of activity is as follows:
 No. of units – 600
 Cost of materials – Rs.2 per unit
 Administrative overhead – Rs.5 per unit (50% fixed)
 Compute the cost at 70% level of activity.
9. Classify the following items in ABC classification:

	Units	Cost / unit (Rs.)
1	200	40
2	100	360
3	2000	0.20
4	400	20
5	6000	0.04
6	1200	0.80

10. Find the optimal solution for the assignment problem with the following cost matrix.

Salesman	Area			
	W	X	Y	Z
A	11	17	8	16
B	9	7	12	6
C	13	16	15	12
D	14	10	12	11

SECTION – B

ANSWER ANY FIVE QUESTIONS:

(5 x 8 = 40)

11. Consider a problem of assigning four clerks to four tasks. The hours required to complete the tasks are given below:

Clerks	Tasks			
	A	B	C	D
1	4	7	5	6
2	--	8	7	4
3	3	--	5	3
4	6	6	4	2

12. Find the initial basic feasible solution for the following transportation problem under North West corner rule method.

Origin	Distribution centres				Supply
	D1	D2	D3	D4	
S1	11	13	17	14	250
S2	16	18	14	10	300
S3	21	24	13	10	400
Requirement	200	225	275	250	

13. Prepare a cash budget for the month of May, June and July 2004 on the basis of following information.

Months	Sales	Credit purchases	Wages	Overheads
March	Rs.80,000	Rs.36,000	Rs.9,000	Rs.10,000
April	82,000	38,000	8,000	9,000
May	85,000	33,000	10,000	12,000
June	78,000	35,000	8,500	9,000
July	80,000	39,000	9,500	10,500

Additional information:

- Cash balance on 1st May 2004 is Rs.8,000
 - Cash sales is 25% of sales
 - Period of credit allowed by suppliers, two months and to customers, one month
 - Lag in payment of wages, one month.
14. The sales turnover and profit during two periods were as follows:
- | | Sales | Profit |
|----------|-------------|------------|
| Period 1 | Rs.20 lakhs | Rs.2 lakhs |
| Period 2 | Rs.30 lakhs | Rs.4 lakhs |
- Calculate (i) P/V ratio (ii) Sales required to earn a profit of 5 lakhs and (iii) profit when sales are 10 lakhs.

15. A gang of workers normally consists of 30 men, 15 women and 10 children. They are paid at standard hourly rates as under:
Men: Re.0.80, Women: Re.0.60, Children: Re.0.40.
In a normal working week of 40 hours, the gang is expected to produce 2,000 units of output. The actual wages paid were @ Re.0.70, Re.0.65 and Re.0.30 respectively. Four hours were lost due to abnormal idle time and 1,600 units were produced. Calculate labour variances.

16. The annual demand of a particular item used by a company is 10,000 units. This item may be obtained from either an outside supplier or subsidiary company. The relevant data for the procurement of the item are given below:

	Outside supplier	Subsidiary company
	Rs.	Rs.
Cost per unit	12	13
Cost of placing an order	10	10
Cost of receiving an order	20	15
Storage cost	2	2

- What purchase quantity and from which source should you recommend to procure.
- What would be the total cost.

17. Following information has been made available from the cost records of United Automobiles Ltd.

Direct Materials	Per Units (Rs.)
X	8
Y	6
Direct Wages	
X	6
Y	4
Variable Overheads – 150% of direct wages	
Fixed cost (total)	Rs.750
Selling Price	
X	25
Y	20

The directors want to adopt anyone of the following alternative sales mixes in the following period.

- a) 250 units of X and 250 units of Y, (b) 400 units of Y only, (c) 150 units of X and 350 units of Y. State which of the alternative sales mixes you would recommend to the management?

SECTION – C

ANSWER ANY TWO QUESTIONS:

(2 x 15 = 30)

18. The following information relates to the productive activities of G Ltd., for three months ended 31st December 2001 at 50% capacity utilization.

Fixed expenses	Rs.
Management salaries	2,10,000
Depreciation of machinery	1,75,000
Sundry office expenses	3,62,500
Variable expenses at 50% capacity	
Materials	6,00,000
Labour	6,40,000
Semi-variable expenses at 50% capacity	
Indirect labour	2,47,500
Salesmen salary	72,000

It is further noted the semi-variable expenses remain constant between 40% and 70% capacity, increase by 10% of the figures between 70% and 95% capacity and increase by 15% above 95% capacity. Sales at 50% capacity is Rs.21,25,000, sales at 60% capacity is Rs.21,50,000, sales at 90% capacity is Rs.38,50,000. Prepare a flexible budget at 60%, and 90% production capacity.

19. The following particulars are taken from the records of a company engaged in manufacturing two products X and Y from a certain raw material.

	Product X Cost / unit	Product Y Cost / unit
	Rs.	Rs.
Material (Rs.2.5 per kg)	25	62.50
Labour (Rs.15 per hour)	37.50	75
Variable overhead	12.50	25
Sales	125	250

Total fixed overheads Rs.50,000.

Comment on the profitability of each when –

- Total sales in value is limited
 - Labour time is limited
 - Production capacity in units is a key factor
 - Total availability of raw material is 20000 kgs. and maximum Sales potential of each product is 1000 units. Find the product mix to yield maximum profit. Determine the maximum profit.
20. From the following data, analyse Material Variances

Materials	Standard			Actual		
	Quantity	Price	Total	Quantity	Price	Total
		Rs.	Rs.		Rs.	Rs.
X	500	6.00	3,000	460	5.0	2,300
Y	400	3.75	1,500	550	3.0	1,650
Z	300	3.00	900	430	4.0	1,720
	1,200		5,400	1,440		5,670
Less: Loss Of Production	120		--	360		--
Yield	1,080		5,400	1,080		5,670

21. Obtain an optimum solution to the following transportation problem.

Origin	Distribution centres				Supply
	A	B	C	D	
1	21	16	25	13	11
2	17	18	14	23	13
3	32	27	18	41	19
Demand	6	10	12	15	
