STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI - 600086.
(For candidates admitted during the academic year 2004-05 \& thereafter)
SUBJECT CODE : CM/MO/CC44

## B.Com. DEGREE EXAMINATION APRIL 2008 <br> COMMERCE <br> FOURTH SEMESTER

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

## SECTION - A

## ANSWER ALL QUESTIONS:

1. State the objectives of cost control.
2. What are the assumptions of marginal costing.
3. Write a brief note on flexible budget.
4. State the difference between standard costing and budgetary control.
5. What is assignment problem.
6. You are required to compute the economic ordering quantity and the frequency of the orders in terms of days from the data given below:
Consumption of material per annum Rs.8,000
Ordering costs per order Rs. 25
Storage and carrying cost per annum $10 \%$ of inventory value.
7. From the following data calculate :
a) $\mathrm{P} / \mathrm{v}$ Ratio.
b) Variable cost and
c) Profit sales Rs.80,000,

Fixed expenses Rs.15,000, Break even point - Rs.50,000.
8. Prepare a flexible budget for production of 4000 units. The expenses for production of 5000 units in a factory are as follows:

Material

> Cost/Units

Factory expenses (30\% fixed) Rs. 30
Administration expenses ( $100 \%$ fixed) Rs. 5 .
9. You are required to calculate labour cost \& rate variance from the following data:

Standard rate of wages per hour Rs. 10
Standard hours - 300
Actual rate of wages per hour Rs. 12
Actual hours - 200.

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10. Find the initial feasible solution by North - West corner method:

F1
F2
F3
F4
Demand

| W1 |
| :--- |
| W2 W3 W4  <br> 48 60 56 58 <br> 45 55 53 60 <br> 50 65 60 62 <br> 52 64 55 61 <br> 200 220   <br> 200 320 250 210 |

## SECTION - B

## ANSWER ANY FIVE QUESTIONS:

$(5 \times 8=40)$
11. Compute the various stock level from the following data

Maximum consumption in a month - 300 units
Minimum usage in a month - 200 units
Average usage in a month - 225 units
Time log for procurement of materials -
Maximum 6 months
Minimum 2 months
Re order quantity - 750 units.
12. The following particulars are extracted from the records of a company -

| Product A | Product B |
| :---: | :---: |
| Rs. | Rs. |
| 100 | 120 |
| 10 | 15 |
| 15 | 10 |
| 5 | 6 |
| 15 | 20 |
| 2 kg | 3 kg |
| 3 hrs | 2 hrs |

Direct wage per hour is Rs.5. Comment on the profitability of each product when
a) Total sales potential in units is limited
b) Production capacity (in terms of machine hours) is the limiting factor
c) Material is in short supply
d) Sales potential in value is limited.
13. A factory is currently working at $50 \%$ capacity and produced 10,000 units at a cost of Rs. 180 per unit as per details below:

|  | Rs. |
| :--- | ---: |
| Materials | 100 |
| Labour | 30 |
| Factory overheads | 30 (Rs. 12 fixed) |
| Administrative overheads | 20 (Rs. 10 fixed) |

The current selling price is Rs. 200 per unit. At $60 \%$ working selling price per unit falls by $2 \%$.
At $80 \%$ working, selling price per unit falls by $5 \%$. Estimate profits of the factory at $60 \%$ and $80 \%$ working.

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14. Find out labour variances from the following particulars:
Standard
Actual

| Output | - | 100 units |  | - |
| :--- | :--- | :--- | :--- | :--- |
| Rate of payment | - | Rs. $6 /$ unit | wages paid | - |
| Time taken | - | 50 hrs |  | - |
| Rs. 8,000 |  |  |  |  |
|  |  |  | 40 hrs. |  |

15. A transport corporation have three vehicles in three cities. Each of vehicles can be assigned to any of the four other cities. The distance differs from one city to another as under :

|  | W | X | Y | Z |
| :--- | :--- | :--- | :--- | :--- |
| A | 33 | 40 | 43 | 32 |
| B | 45 | 28 | 31 | 23 |
| C | 42 | 29 | 36 | 29 |

You are required to assign a vehicle to a city in such a way that the total distance traveled is minimized.
16. Test the following initial solution for optimality.

17. A manufacturing company used Rs.50,000 materials per year. The administration cost per purchase is Rs. 50 , and the carrying cost is $20 \%$ of the average inventory. The company currently has on optimum purchasing policy but has been offered a $0.4 \%$ discount if they purchase five times per year should the offer be accepted. If not, what counter offer should be made.

## SECTION - C

## ANSWER ANY TWO QUESTIONS: <br> $(2 \times 15=30)$

18. R Ltd. produces 2 product X \& Y. Following information relates to the cost of the products.

|  | Product X <br> Per unit | Product Y <br> Per unit |
| :--- | :---: | :---: |
| Material (Rs. $10 / \mathrm{kg}$ ) | 40 | 60 |
| Labour (Rs. $2 / \mathrm{hr)}$ | 20 | 12 |
| Variable overhead | 10 | 6 |
| Fixed cost at the current | 15 | 30 |
| capacity |  |  |
| Selling price | 100 | 120 |
| Units sold | 900 | 2000 |

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Ascertain the product mix (present production output) of either product should be kept as the minimum and the profit when.
a) labour is in short supply \& maximum labour hours available per month 3000 hrs.
b) material is in short supply and available material is 12000 kgs .
19. Prepare a cash budget for the three months ending 31.12.2006 from the following particulars:

| a) MONTH | SALES | MATERIALS | WAGES | OVERHEADS |
| :---: | :---: | :---: | :---: | :---: |
|  | Rs. | Rs. | Rs. | Rs. |
| August | 20,000 | 10,200 | 3,800 | 1,900 |
| September | 21,000 | 10,000 | 3,800 | 2,100 |
| October | 23,000 | 9,800 | 4,000 | 2,300 |
| November | 25,000 | 10,000 | 4,200 | 2,400 |
| December | 30,000 | 10,800 | 4,500 | 2,500 |

b) Credit terms all -
i) Sales - $10 \%$ as on cash basis, $50 \%$ of the credit sales are collected next month and the balance in the following month.
ii) Creditors for materials 2 months

Creditors for wages $1 / 5$ month Creditors for overheads $1 / 2$ month
iii) Cash balance on 1.10.2006 is expected to be Rs.8,000.
iv) A machinery will be installed in August 2006 at a cost of Rs.100,000. The monthly instalment of Rs. 5,000 is payable from October onwards.
v) Advance to be received for sale of vehicle Rs.20,000 in December.
vi) Dividend at $10 \%$ on preference share capital of Rs. $3,00,000$ will be paid on 1.12.2006.
vii) Income tax to be paid in December Rs.5,000.
20. The standard cost of a chemical mix is

Stonnes of material A at Rs. 40 / tonne
12 tonnes of material B at Rs. 60 / tone
Standard yield is $90 \%$ of input
Actual cost for the period is as under:
10 tonnes of material A at Rs. 30 / tonne
20 tonnes of material B at Rs. 68 / tonne
Actual yield is 26.5 tonnes
Calculate material variance.
21. Solve the following transportation problem for minimum cost:

Origin

| Destination |
| :--- |
| A |
| 1 |$|$

15
25
20
40

