# EASTERN UNIVERSITY, SRI LANKA FACULTY OF COMMERCE AND MANAGEMENT 

# SPECIAL EXAMINATION IN BBA / B.COM 2008/2009 \& 2009/2010 

FEB/MAR 2011
(Proper/Special Repeat)
DAF 3113 COST ACCOUNTING
No. of questions: 05

## Calculators are permitted

No. of pages: 06
Answer all questions
Time: 3.00 hrs

1. (i) "Cost Accounting is an indispensable tool of modern management" Discuss.
(04 Marks)
(ii) Briefly describe of behavioral based classification of cost. Explain the meaning of term used under this classification.
(iii) LM enterprises manufacture a special product ' $X$ '. The following were collected

| Re order Period | $: 4-6$ weeks |
| :--- | :--- |
| Maximum Consumption | $: 400$ units per week |
| Normal Consumption | $: 300$ units per week |
| Minimum Consumption | $: 250$ units per week |
| Re order quantity | $: 1500$ |

Calculate;
a. Re order level
b. Maximum level
c. Minimum level
d. Average Stock level
(04 Marks)
(iv) The data regarding inventory of a company are given that about 100 items are required every day for a machine. A fixed cost of Rs. 500 per order is incurred for placing an order. The inventory carrying cost per item amounts to Rs. 0.4 per day. Compute economic order quantity (EOQ).
(03 Marks)
(v) The following is a summery of the receipts and issue of material in a factory during January 2011.

January 01 - Opening balance 300 units @ Rs. 30 per unit
10 - Received from supplier 200 units @ Rs. 35 per unit
12 - Issue 320 units
20 - Received from supplier 100 units @ Rs. 40 per unit 25 - Issue 180 units
This revealed that on the 27th there was a shortage of five units. Prepare the stores ledger accounts using First in First Out (FIFO) method of pricing issues. (03 Marks)
(vi) The following information were extracted from the Books of Accounts of Ram industry.

| Material | A | B |
| :--- | ---: | ---: |
| Opening stock | Rs.32000 | Rs. 78000 |
| Purchase | Rs468000 | Rs. 672000 |
| Closing stock | Rs.20000 | Rs. 50000 |

Calculate the material turnover ratio of the above material and state which of the materials is more faster moving.
(03 Marks)
(Total: 20 Marks)
02. (i) Mr. X work in a factory where the following particulars are available:

1. Normal rate per hour is Rs. 60
2. Normal piece rate per hour is $20 \%$ more of time rate
3. Expected output is 20 units per hour
4. Mr. X produced 180 units in 8 hours a day

Calculate his wages for the day on;
a. Time rate basis
b. Piece rate basis
(06 Marks)
(ii) $A B$. Ltd has three production departments $X, Y$ and $Z$ and two service departments $A$ and $B$. The following estimated figures for certain period have been mąde available.

| Rent and rates | Rs. 20000 | Power | Rs. 6000 |
| :--- | ---: | :--- | ---: |
| Lighting and electricity | Rs. 2400 | Depreciation of machinery | Rs. 40000 |
| Indirect wages | Rs. 6000 | Other expenses | Rs.40000 |

Following are further details which are also available

|  | Total | X | Y | Z | A | B |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Floor space <br> (Sq. mts.) | 10000 | 2000 | 2500 | 3000 | 2000 | 500 |
| Light points <br> (Nos.) | 120 | 20 | 30 | 40 | 20 | 10 |
| Direct wages <br> (Rs.) | 20000 | 6000 | 4000 | 6000 | 3000 | 1000 |
| Horse power of <br> machines | 300 | 120 | 60 | 100 | 20 | - |
| Cost of <br> machinery (Rs.) | 100000 | 24000 | 32000 | 40000 | 2000 | 2000 |
| Working hours |  | 4670 | 3020 | 3050 | - | - |

The expenses of the service departments of $A$ and $B$ are to be allocated as follows
(use repeated distribution or simultaneous method)


You are required:

1. Calculate the over head absorption rate per hour in respect of three production departments.
2. What will be the total cost of an article with material cost of Rs. 80 and direct labour cost of Rs. 40 which passes through $X, Y$ and $Z$ departments for 2, 3 and 4 hours respectively.
3. (i) A contractor undertook a contract of Rs. 500000 on $1^{\text {st }}$ of January 2010. The retention money agreed is $20 \%$ and the contractee is to make payment for $80 \%$ of the work certified by the Engineer. The following are the details as shown in the books on $31^{\text {st }}$ December, 2010.

Material sent to site from stores
1 Rs. 30,200
Materials purchased directly from vendor
Rs. 45,500
Materials received from other contract
Rs. 20,300
Labour engaged
Direct Expenses
Plant installed at site Rs. 1,35,000

Rs. 42,000
Rs. 40,000
General Expenses
Rs. 32,000
Establishment charges
Rs. 18,000
Wages accrued on 31/12/2010
Rs. 12,000
Rs. 3,000
Rs. 5,000
Rs. 15,000
Material at site on 31/12/2010
Rs. 13,000
Material transferred to other contracts
Rs. 11,000
Rs. 9,000
Rs. 10,000
Material destroyed by fire
Rs. 8,000

| Work not certified | Rs. 75,000 |
| :--- | ---: |
| Work certified by Engineer | Rs. $2,00,000$ |
| Cash received from contractee | Rs. $1,60,000$ |

You are required to prepare contract account for the year ended 31st December 2010.
(08 Marks)
(ii) Ceylon sugar industry has provided the following cost information of process I relating to product $Z$ for a period of June 2007 is as follows.

1. Opening work in progress

6000 units @ Rs. 4 per unit
Degree of completion

| Material | - | $100 \%$ |
| :--- | :--- | :--- |
| Labour | - | $50 \%$ |

2. During the period the following cost were incurred

| Material (input) 18000 units at | Rs. 111200 |
| :--- | :--- |
| Labour | Rs. 35920 |

3. Closing work in progress 1600 units

Degree of completion

| Material | - | $75 \%$ |
| :--- | :--- | :--- |
| Labour | - | $60 \%$ |

4. Unit transferred 18000 units
5. Normal loss $10 \%$ of total input (opening work in progress plus units put in during the period)
6. Scrap value Rs. 2.00 per unit

Required:

1. The statement of equivalent units production using FIFO method
2. Process I account
(12 Mark)
(Total: 20 Marks)
(i) The following information has been obtained from the costing records of a
3. manufacturing concern in respect of Job No. 1156 ;

Materials Rs 8500
Wages Department A - 120 Hrs @ Rs 3 per hour
B - $80 \mathrm{Hrs} @$ Rs 5 per hour
C - 40 Hrs @ Rs 8 per hour

Variable overhead estimated :


Fixed overhead (estimated Rs 50,000 for 1,000 normal working hours).
Calculate cost of Job No. 1156 and fixed out the price to be charged so as to earn a profit of $25 \%$ on selling price.
(06 Marks)
(ii) $X Y$ industry provides the following information from their records

The standard material and labour requirement for producing 100 Kg of product X is as follows.

| Material | 105 Kg @ Rs. 10 per Kg |
| :--- | :--- |
| Labour | 5 hours @ Rs. 25 per hour |

During the month of February, 1500 Kg were produced. The actual consumption of material and labour was as under.

Material $\quad 1725 \mathrm{~kg}$ @Rs.9 per Kg
Labour. 90 hours @Rs. 30 per hour

## Calculate:

a. Material cost variance
b. Labour cost variance
(07 Marks)
(iii) Zhara transport service is running 5 buses between two places 30 miles apart. Seating capacity of each bus is 50 passengers. The following particulars were obtained from the books of March 2007.

| Administrative expenses | Rs. 25000 |
| :--- | ---: |
| Insurance | Rs. 19500 |
| Rent | Rs. 3500 |
| Driver wage per hour | Rs. 100 |
| Cost of fuel per mile | Rs. 10 |

Repairs and maintenance per mile Rs. 1.5
Vehicle runs 20 miles per hour
Actual passenger carried were $80 \%$ of seating capacity. Each bus make one round trip per day. And all the buses run 20 days of month. Calculate
a. Total passenger-mile for the month
b. Cost per passenger-mile
05. (i) What are the differences between marginal costing and abortion costing? (02 Marks)
(ii) LMX Ltd produces three products. The following information is given for the current year.

| Product | A | B | C |
| :--- | :---: | :---: | :---: |
| Selling price per unit in Rs. | 200 | 150 | 200 |
| C/s ratio (\%) | $20 \%$ | $20 \%$ | $30 \%$ |
| Maximum sales potential in units | 10000 | 8000 | 18000 |
| Raw material required in units (@ Rs. 2.00 per unit) | 4 | 5 | 5 |

The fixed expenses are estimated Rs. 300000. The company uses a single raw material in all three products. During the current year, the raw material is in short supply with the value of Rs. 300000 for manufacture and meets sales demand.

You are required to set product mix which will give a maximum profit keeping the short supply of raw materials in view.
(12 Marks)
(iii) Delta industry uses a special component, which would be purchased from out side firm. The company estimated that 40000 components are required per year. The following unit cost has to be incurred if a component is manufactured by the company.

| Direct material: | Rs. 12.00 |
| :--- | :--- |
| Direct labor: | Rs. 14.50 |
| Variable overhead: | Rs. 5.75 |
| Fixed over head: | Rs. 6.75 |
| Jotal | Rs. 39.00 |

The fixed overhead rate is absorbed on the basis of direct labour hour. The component could be purchased for Rs. 35.00 each from the outside supplier.
a. As a cost accountant suggest to the management whether component should be purchased or manufactured.
b. What other factors should the company consider before finalising whether to purchase or manufacture the component?
(06 Marks)
(Total: 20 Marks)

