EASTERN UNIVERSITY SRI LANKA
FACULTY OF COMMERCE AND MANAGEMENT DEPARTMENT OF COMMERCE THIRD YEAR SECOND SEMESTER EXAMINATION IN SCIENCE 200\% 2006 (MARCH 2008) OC - 301 COST ACCOUNTING

## Calculators are permitted



## Answer All Questions

1. 

i. Define cost accounting? Explain the objectives of cost accounting.
(04 marks)
ii. What do you understand by the term cost unit? Explain with examples.
iii. What are the elements of cost? Explain with relevant examples.
iv. The following information is available in respect of material no: 145.

Re order quantity - 2000 units
Re order period - 6 to 8 weeks
Maximum consumption - 500 units per week
Normal consumption - 400 units per week
Minimum consumption - 200 units per week
Calculate;
a) Re order level
c) Maximum level
b) Minimum level
v. a) What do you understand by carrying cost and ordering cost?
b) The following information regarding material X in Ram industries.
Annual consumption of material - 5000 kg
Cost of placing an order - Rs. 100
Purchase price - Rs. 250

Storage and carriage cost - $10 \%$ of average inventory
Calculate EOQ?
vi. From the following information prepare store ledger account using FIFO method for the month of January 2008 for the material W.

Date

| $01-01-2008$ | Opening balance | 500 units @ Rs. 10 each |
| :--- | :--- | :--- |
| $06-01-2008$ | Purchased | 300 units @ Rs. 12 each |
| $10-01-2008$ | Purchased | 200 units @ Rs. 15 each |
| $16-01-2008$ | Issued | 400 units |
| 23-01-2008 | Issued | 350 units |
| 28-01-2008 | Purchased | 250 units @ Rs. 18 each |
| 05-02-2008 | Issued | 200 units |

vii. Calculate the earning of $A$ and $B$ under piece rate basis from the following information.

Standard production
Working hours per day
Normal time rate
Differential piece rate is applicable as follows;
viii. You are given the following data:

10 units per hour
8 hours
Rs. 20 per hour

> Below the standard production: $80 \%$ of piece rate
> Above the standard production: $120 \%$ of piece rare
> Particular day Mr. A and Mr. B produced 70 units and 85 units respectively.

| Fixed cost - Rs. 45000 |  |
| :--- | :--- |
| Variable cost - | Rs. 5 per unit |
| Selling price - | Rs. 20 per unit |

Calculate:
a) Break even point in units and rupees
b) Sales when desired to earn profit of Rs. 30000
c) Margin of safety when budgeted sales Rs. 110000
d) Because of increasing costs, the variable cost is expected to rise by $25 \%$ and fixed cost to 60,000 p.a. If the selling price can not be increased what will be the number of units required to maintain a profit of Rs. 30,000 p.a?
ix. A transport service is running 2 buses between two places 50 km apart. Seating capacity of each bus is 50 passengers. The following particulars were obtained from the books of January 2008.

| Administrative expenses | Rs. 20000 |
| :--- | :--- |
| Insurance | Rs. 10500 |
| Rent | Rs. 5000 |
| Driver wage for the month | Rs. 10000 |
| Cost of fuel for the month | Rs. 10000 |
| Repairs and maintenance | Rs. 2000 |

Actual passenger carried were $80 \%$ of seating capacity. Each bus makes one round trip per day. And all the buses run 20 days of month. Calculate total passenger-km for the month and cost per passenger-km.
(05 marks)
x. The following particulars are extracted from the records of a company

Product A Product B

|  | Product A | Product B |
| :--- | :---: | :---: |
| Sale (Per Unit) | Rs. 100 | Rs 120 |
| variable cost | Rs. 50 | Rs. 60 |
| Fixed Overhead Expenses | Rs. 5 | Rs. 10 |
| Consumption of material | 2 kgs | 3 kgs |

Assuming raw material is the key factor, availability of which is limited to $10,000 \mathrm{kgs}$ and maximum sale potentials of each product being 3,500 units. Find the product mix which yields the maximum profit.
(Total marks: 50)
02.
i. What is the meaning of overhead?
(03 marks)
ii. Rana Ltd is a manufacturing company having three production departments $A, B$ and $C$ and two service departments $X$ and $Y$. The following expenses for month of December 2007.

| Detail | Total | A | B | Departments | X | Y |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Direct material | Rs. 10000 | 1000 | 2000 | 4000 | 2000 | 1000 |
| Direct wages | Rs. 18000 | 5000 | 2000 | 8000 | 1000 | 2000 |
| Rent | Rs. 4000 |  |  |  |  |  |
| Power | Rs. 2500 |  |  |  |  |  |
| Depreciation | Rs. 1000 |  |  |  |  |  |
| Other overheads | Rs. 9000 |  |  |  |  |  |

The following information also available

| Detail | A | B | C | X | Y |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Area (Sq.ft) | 500 | 250 | 500 | 250 | 500 |
| Capital value of asset (Rs.) | 200000 | 400000 | 200000 | 100000 | 100000 |
| Machine Hours | 1000 | 2000 | 4000 | 1000 | 1000 |
| Horse power of machine | 50 | 40 | 20 | 15 | 15 |

The apportionment of expenses of service departments is as under.

| Department | A | $\mathbf{B}$ | $\mathbf{C}$ | $\mathbf{X}$ | $\mathbf{Y}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{X}$ | $45 \%$ | $15 \%$ | $30 \%$ | - | $10 \%$ |
| $\mathbf{Y}$ | $60 \%$ | $35 \%$ | - | $5 \%$ | - |

You are required:
a) A statement showing distribution of overheads to various departments
b) Assume that production of an article has to pass through department $A, B$ and $C$ for 5,6 , and 4 hours respectively, and its raw material cost is Rs. 175 and labour cost is Rs. 95. Calculate total cost for producing the article.
03.
a) What are the differences between Contract costing and Job costing? (p2 marks)
b) A contractor undertook a contract of Rs. 500000 on $1^{\text {st }}$ of January 2007. 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, 2007.

Material sent to site from stores
Labour engaged
Direct Expenses
Plant installed at site
General Expenses
Wages accrued on 31/12/2007
Material return to stores
Material at site on 31/12/2007
Plant at side on 31/12/2007
Material sold (Costing Rs. 8,000)
Material destroyed by fire
Work not centified
Work certified by Engineer
Cash received from contractee

Rs. 30200
Rs. 135000
Rs. 42000
Rs. 40000
Rs. 32000
Rs. 12000
Rs. 15000
Rs. 13000
Rs. 7500
Rs. 9,000
Rs. 8000
Rs. 75000
Rs. 260000
Rs. 208000

You are required to prepare contract account for the year ended 31st December 2007.
C) CRP industries manufacture product " $X$ " which passes through two differen (10 Marks) $A$, and $B$. The normal wastage of each process is as follows.

| Process A | $3 \%$ |
| :--- | :--- | :--- |
| Process B - | $5 \%$ |

Loss of process $A$ was sold at 25 cents per unit, and that of process $B$ at 50 cents per unit. In the beginning of January, 10000 units were issued to process $A$ at a cost of Rs. 1 per unit. The other expenses were as follows:

| Process | A | B |
| :--- | :---: | :--- |
| Material | 1000 | 1500 |
| Labour | 5000 | 8000 |
| Direct Expenses | 1050 | 1188 |
| Actual output | 9500 | 9100 |
| Prepare the process cost accounts and abnormal loss/gain accountsassuming there was no |  |  |
| opening or closing stock. |  |  |

