DEPARTMENT OF ACCOUNTING
FIRST SEMESTER EXAMINATION - 2010
MANAGEMENT AND COST ACCOUNTING II CAC 2105
TIME ALLOWED: 3 HOURS

## INSTRUCTIONS TO CANDIDATES

i. Answer all four questions
ii. Begin each answer on a new page

| QUESTION | TOPIC | MARKS |
| :--- | :--- | :--- |
|  |  |  |
| 1 | CONTRACT ACCOUNTS | 25 |
| 2 | LABOUR COSTING | 25 |
| 3 | PROCESS COSTING | 25 |
| 4 | JOB COSTING | 25 |

## QUESTION 1

 (25 Marks)Skies Ltd is a contractor for the construction of building for NUST. The value of the contract is $\$ 300000$ and payment by engineers 's certificate subject to retention of $10 \%$ of the amount certified this is to be held by NUST for six months after the completion of the contract.
The following information is extracted from the records of Skies Ltd
Wages on site41260
Materials delivered on site by supplier 58966
Materials delivered on site from store 10180
Hire of plant 21030
Expenses charged to contract 3065
Overheads charged to contract 8330
Materials on site at 31 December 200911660
Work certified 150000
Payment received 135000
Work in progress at cost (not the subject of a certificate to date) 12613
Wages accrued to 31 December 20092826

## REQUIRED

(a) Prepare the skies contract account to 31 December 2009. (15 marks)
(b) Suggest a method by which profit could be prudently estimated.
(1 mark )
(c) Define the following terms related to construction accounts and give two examples of each:
(i) A variation
(ii) A claim
(iii) An incentive
(9 marks)

## QUESTION 2 (25 Marks)

a) A team of five employees is rewarded by means of a group incentive scheme. The team receives a basic hourly rate for output up to and including 200 units per day.

The basic rate of pay for members of the team is:

|  | Number of employees | Hourly rate |
| :--- | :---: | :---: |
|  |  | $\$$ |
| Team leader | 1 | 14 |
| Operatives | 3 | 10 |
| Junior operatives | 1 | 6 |

For outputs exceeding 200 units per day the hourly rate for all members of the team is increased, for all hours worked that day. The increases in hourly rate, above the basic hourly rate, are as follows,

| Output per day | increase in hourly rate |
| :--- | :---: |
| Unit's | $\%$ |
| 201 to 250 | 10 |
| 251 to 280 | 12 |
| 281 to 300 | 15 |

Due to a limitation on machine capacity it is not possible to exceed an output of 300 units per day.

## REQUIRED

(a) Prepare a graph to show the hourly group remuneration cost for the range of output from zero to 300 units per day.
(10 marks)
(b) Based on the data shown below you are required to calculate the remuneration of each employee, as determined of each of the following methods
(i) Hourly rate
(ii) Basic piece rate
(iii) Individual bonus scheme using the Rowan scheme. (10 marks)

Details
Name of employee
Units produced
Time allowed in minutes per unit
Time taken in hours
Big

Rate per hour

540
10
80
\$
3.75

| Biggy | Bgboy |
| :--- | :--- |
| 400 | 440 |
| 15 | 12 |
| 76 | 72 |
| $\$$ | $\$$ |
| 3.15 | 3.60 |

b) Briefly distinguish between:
(i) Straight piece rates
(ii) Piece rates with guaranteed day rates
(iii) Differential piece rates.
( 5 marks)

## QUESTION 3 (25 Marks)

Chemicals $\mathrm{X}, \mathrm{Y}$ and Z are produced from a single joint process. The information below relates to the period just ended.

| Input to process: | Direct materials 3.200 litres, cost | $\$ 24.000$ |
| :--- | :--- | :---: |
|  | Direct labour | $\$ 48.000$ |

Factory overheads are absorbed at 120 \%of prime cost.
Output from process:

| Chemical X | 1.440 litres |
| :--- | ---: |
| Chemical Y | 864 litres |
| Chemical Z | 576 litres |

Scrap 10 \% input, credited to the process Account at sales value as it occurs

Selling prices:

| Chemical X | $\$ 100$ per litre |
| :--- | :--- |
| Chemical Y | $\$ 80$ per litre |
| Chemical Z | $\$ 60$ per litre |
| Scrap | $\$ 16$ per litre |

## REQUIRED

Calculate for the period just ended:
a) The joint costs to be apportioned to the joint products.
(5 marks)
b) The total sales value of the output of the three products.
(3 marks)
c) The share of the joint process costs charged to Chemical X, using the volume of output method of apportionment
d) The share of the joint process costs charged to Chemical Y, using the sales value method of apportionment.
e) Give two examples of industries in which joint costs are found. For each example what are the separable products at split off point.
f) Distinguish between the sales value at split off point method and the estimated net realizable value method.
( 2 marks)
g) In process costing it is neither the technology nor the cost incurred but the market price of the item which determines whether an item is classified as

Scrap or waste,joint product or a by product.
How far do you agree with the statement?
(7 marks)

## QUESTION 3 <br> (25 Marks)

A company manufactures carpet for the hotel industry. No finished stocks are carried as the company only manufactures specifically to customer order. At the end of month 6 one incomplete job remained in progress. Production costs incurred on the job to the end of month 6 were

Direct materials
\$7 220
Direct labour
\$6 076
Production

$$
\$ 10416
$$

During month 7 the company accepted two further jobs (Job X124 and Job X126) and incurred prime costs as follows.

| Direct material issued from stores | $\$ 6,978$ | $\$ 18,994$ | $\$ 12,221$ |
| :--- | :--- | :--- | :--- |
| Direct material returned to stores | nil | $(\$ 700)$ | $(\$ 2,170)$ |
| Direct material transfers | nil | $\$ 860$ | $(\$ 860)$ |
| Direct labour hours | 780 | 2,364 | 1,510 |

Direct month is paid at a rate of $\$ 7.00$ per hour. Production overheads are absorbed at a rate of $\$ 12.00$ per direct labour hour.

During month 7, Jobs X124 and X125 were completed. On completion of a job, 20\% of the total production cost is added in order to recover distribution, selling and administration costs. The amounts invoiced to customers during month 7 for the completed jobs were:

```
Job X124
    $60,000
Job X125
$79,000
```


## REQUIRED

a) For each of the jobs calculate the following total costs:
(i) Direct material;
(ii) Direct labour;
(iii) Production overhead.
(17 marks)
b) Calculate the total cost and profit / (loss) of each of job X124 and job X125.
(8 marks)

