### UNIVERSITY OF SWAZILAND

## **DEPARTMENT OF ACCOUNTING**

### MAIN EXAMINATION PAPER, 2008

DEGREE/DIPLOMA AND YEAR OF STUDY : DIP COM II

TITLE OF PAPER : COST ACCOUNITING

COURSE CODE : AC 203/IDE AC 203

TIME ALLOWED : TWO HOURS

INSTRUCTIONS: 1. THE TOTAL NUMBER OF QUESTIONS ON THIS PAPER ARE FOUR (4)

2. ANSWER QUESTION ONE AND ANY TWO OTHER QUESTIONS.

3. THE MARKS AWARDED FOR A QUESTION / PART ARE INDICATED AT THE END OF EACH QUESTION / PART OF QUESTION.

4. WHERE APPLICABLE, SUBMIT ALL WORKINGS AND CALCULATIONS.

NOTE: YOU ARE REMINDED THAT IN ASSESSING YOUR WORK,

ACCOUNT WILL BE TAKEN OF ACCURACY OF THE LANGUAGE AND THE GENERAL QUALITY OF EXPRESSION, TOGETHER WITH THE

LAYOUT AND PRESENTATION OF YOUR FINAL ANSWER.

SPECIAL REQUIREMENTS: NONE

THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR.

## **QUESTION 1**

An Oil Company buys crude vegetable oil and refines it to produce four products, A, B, C, and D. C is fully processed at the split-off point whilst A, B and D can be individually refined into X, Y and Z. In December 2007, the output at split-off point was:

- A 500,000 litres
- B 200,000 litres
- C 80,000 litres
- D 80,000 litres

The joint costs of purchasing the crude vegetable oil and processing it were E946,000. The company had no beginning or ending stock. Sales of C in December 2007 was E80,000. Total output of A,B and D was further refined and then sold.

Data relating to the further processing is given below:

Separable costs		Ultimate Sales Value		
	E	E		
A	150,000	300,000		
В	100,000	200,000		
D	110,000	120,000		

The company had the option of selling A, B and D at the split-off point. This alternative would have yielded the following sales for December 2006 production.

A E50.000 B E30.000 D E70.000

### **REQUIRED:**

a) Draw an appropriate diagram to illustrate the above information. (10 Marks)

b) Prepare a Joint Cost Allocation Statement for each product sold in December 2007 under the following three methods:

i) Sales Value at Split-off point
 ii) Physical measure
 iii) Estimated Net Realisable Value (NRV)
 (4 Marks)
 (4 Marks)
 (4 Marks)

- c) Give two examples of industries in which joint costs are found. For each example; What are the individual products at the split off point? (4 Marks)
- d) What is the major difference between a joint product and By-product? (4 Marks)
- e) What are the usual practices of accounting for By-products (6 Marks) (Total: 40 Marks)

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### **QUESTION 2**

The monthly budget of Alfonzo Ltd, a company that manufactures vehicle exhaust pipes, was prepared on the following specifications:

Production and sales

30,000 units

Direct materials input

5 kg of iron sheets per unit at a cost of E1.20 per kg

Direct labour input

2 hours per unit at a rate of E4 per hour

Variable overhead

E2 per direct labour hour

Fixed overhead

E90,000 per month

The following actual results were recorded for the month of April 2007

Production

42,800 units

Direct materials input

E267,220 (213,776 kg at El .25 per kg)

Direct labour

E356,577

Variable overhead

El 65,243

Fixed overhead

E95,000

### Further information:

a) Throughout April 2007 the price paid for direct materials was El .25 per kg, Direct material is used as soon it arrives on site. No stock of materials were held at the start or end of April 2007.

b) The labour rate paid throughout the month was E4.10 per hour.

## **REQUIRED**:

Calculate the following:

i) Direct material price variance

(5 Marks)

ii) Direct material usage variance

(5 Marks)

iii) Direct material total variance

(4 Marks)

iv) Direct labour rate variance

(4 Marks)

v) Direct labour efficiency variance (4 Marks)

vi) Direct labour total variance

(4 Marks)

vii) Total Variable Overhead Variance (4 Marks)

(Total: 30 Marks)

## **QUESTION 3**

Gadlela Ltd manufactures a product Kemasi in two Departments. The following information is applicable to Department A for October 2007:

	Units
Opening work in process	0
Materials introduced	200,000
Completed and transferred to Department B	160,000
Closing work in process:	16,000
(Material 100%, Conversion 75% completed)	
Cost data:	
Material costs incurred	E720,000
Conversion costs	E508,480

All material is issued at the beginning of the process. Conversion costs are incurred evenly during the process. Normal wastage is estimated at 10% of input. Wastage takes place when production is 40% complete. The company uses the weighted average method of inventory valuation. Losses are sold at a scrap value of E0.10 per unit.

## REQUIRED

a)	Compute the value of completed units	(9 Marks)
b)	Compute the value of abnormal loss	(9 Marks)
c)	Compute the value of ending work-in-process	(9 Marks)
d)	Prepare the work - in - process account for Department A	
	for the same period	(3 Marks)
	-	(Total: 30 Marks)

# N.B:

- i) Assume revenue to be received from sales of normal loss will be used to reduce production costs
- ii) Round off to four (4) decimal figures

## **QUESTION 4**

Takhona Limited has two production departments (Machining and Assembly) and two service departments (Maintenance and Stores).

The budgeted overheads for Period 2 were:

Machining E18,000 Assembly E15,000

The machining department uses a machine hour rate basis for overhead absorption (budget 720 machine hours) and the assembly department a direct labour hour rate (budget 4, 800 direct labour hours).

In budgeting production department overheads, service department overheads were dealt with as follows:

Maintenance Department:

70% to Machining Department 20% to Assembly Department 10% to Stores Department

Stores Department:

40% to Machining Department 30% to Assembly Department 30% to Maintenance Department

During period 2 the machining department worked for 703 machine hours and the direct labout hours recorded in the assembly department was 5, 256.

#### Overhead incurred was as follows:

	Machinery E	Assembly E	Maintenance E	Stores E
Directly allocated:				,
Materials	2,400	3,600	4,200	800
Labour	1,400	1,800	6,000	2,300
Other items	1,700	<u>1,500</u>	600_	400
	5,500	6,900	10,800	3,500
	2,200	<u>3,100</u>	1,700	1,000
	<u>7,700</u>	10,000	12,500	4,500

### **REQUIRED:**

- i) Compute the absorption rates for the machining and Assembly departments using the most appropriate absorption basis (12 Marks)
- ii) Apportion the service department costs among the other departments
  using the continuous allotment method starting by apportioning the maintenance
  department costs first

  (12 Marks)
- iii) Explain how the under/over absorption occurred for each production department (6 Marks)

  (Total: 30 Marks)