



# National University of Science and Technology

## FACULTY OF COMMERCE

## DEPARTMENT OF ACCOUNTING

### SUPPLEMENTARY EXAMINATION PAPER

**DATE:** SEPTEMBER 2013

**SUBJECT:** MANAGEMENT & COST ACCOUNTING: CAC 2105

**TIME ALLOWED:** THREE (3) HOURS

**TOTAL MARKS:** 100

### INSTRUCTIONS TO CANDIDATES

1. Answer **ALL** QUESTIONS
2. Use the Answer book provided
3. Use black or blue pen
4. Begin each question on a new page and
5. Submit all answer books

### **Question 1 [25 Marks]**

The following data of a period relates to a manufacturing department of Madawu Ltd:

<b>Actual</b>	<b>Budgeted</b>	
Direct Material Cost	\$ .500,000	\$ .750,000
Direct Labour Cost	\$ .500,000	\$ .550,000
Production Overhead	\$ .750,000	\$ .800,000
Direct Labour Hours	100,000	130,000

During the period a Job XY 54 was completed.

Direct material costing \$100,000, direct labour \$21,000 and overhead costing \$115,000 were incurred.

### **Required**

(a) Calculate predetermined production overhead absorption rate on the following basis:

- i. as a percentage to direct material cost. **(2 marks)**
- ii. direct labour hours. **(3 marks)**

(b) Calculate the production overhead cost to be charged to XY54 based on rates calculated in answer (a) above. **(7 marks)**

(c) Assume that the direct labour hour rate of absorption is used. Calculate the under or over absorbed production overheads for the period and state an appropriate treatment in the accounts. **(7 marks)**

(d) Determine if overhead was over applied or under applied?, If the factory overhead control account has a credit balance at the end of the period. **(6 marks)**

**Question 2 [25 Marks]**

ABC Limited produces four joint products Q,R,S and T, all of which result from processing a single Raw Material Z. The following information is provided to you:

<b>Joint Product</b>	<b>Numbers of Units</b>	<b>Selling price per unit \$</b>
<b>Q</b>	5000	18.00
R	9000	8.00
S	4000	4.00
T	2000	11.00

The company budgets for a profit of 14% of sales value. Other costs are as follows:

Carriage Inward	<b>6%</b>
Direct Wages	<b>18%</b>
Manufacturing overhead	<b>12%</b>
Administrative overhead	<b>10%</b>

**Required:**

- (a) Calculate the maximum price that may be paid for the raw material. **(13 marks)**
- (b) Prepare a comprehensive Cost Statement for each of the products allocating the material cost and other costs based on:
- i. The numbers of units. **(6 marks)**
  - ii. The sales value. **(6 marks)**

### **Question3 [25 Marks]**

Tata Cools manufactures a range of products including Air conditioners which pass through three processes before transfer to finished goods store. Production department for the current month has given the following production data.

	PROCESS			
	1	2	3	Total
<b>Basic Raw Materials (10 000 units)</b>	6000			6000
	\$	\$	\$	\$
<b>Direct Material - Addition</b>	8,500.00	9,500.00	5,500.00	23,500.00
	\$	\$	\$	\$
<b>Direct Wages</b>	4,000.00	6,000.00	12,000.00	12,000.00
	\$	\$	\$	\$
<b>Direct Expenses</b>	12,000.00	930.00	1,340.00	3,470.00
<b>Production Overheads</b> ( to be allocated on the basis of direct wages)				

<b>Output</b>	<b>Units</b>	9200	8700	7900
Normal loss in process of input		10%	5%	10%
		\$	\$	\$
Scrap value of each lost		0.20	0.50	1.00

There was no stock at start or at the end in any process.

#### **Required:**

Prepare the following accounts

- a) Process 1 (5 marks)**
- b) Process 2 (5 marks)**
- c) Process 3 (5 marks)**
- d) Abnormal Loss (5 marks)**
- e) Abnormal Gain (5 marks)**

**Question 4 [25 Marks]**

Pink Ltd. is considering proposals for design changes in one of a range of soft toys. The proposals are as follows:

**(a)** Eliminate some of the decorative stitching from the toy.

**(b)** Use plastic eyes instead of glass eyes in the toys.

**(c)** Change the filling material used. It is proposed that scrap fabric left over from the body manufacture be used instead of synthetic material which is currently being used. On above proposals following information has been gathered by management:

- I. Plastic eyes will cost \$30 per hundred whereas the existing glass eyes cost \$40 per hundred. The eyes will be more liable to damage during insertion. It is estimated that scrap plastic eyes will be 10% of the quantity issued from stores as compared to 5% in case of glass eyes.
- II. The synthetic filling materials cost \$1,600 per ton. One ton of filling is sufficient for 2,000 soft toys.
- III. Scrap fabric to be used as filling material will need to be cut into smaller pieces before use and will cost \$1 per soft toy. Scrap fabric is sufficiently available for this purpose.
- IV. The elimination of decorative stitching is expected to reduce the appeal of the product, with an estimated fall in sales by 10% from the current level. It is not felt that the change in eyes or filling material will adversely affect sales volume. The elimination of the stitching will reduce production costs by \$6 per soft toy.
- V. Current sales level of the soft toy is 300,000 units per annum. Apportioned fixed costs per annum are \$4,500,000. The net profit per soft toy at the current sales level is \$30

**Required:**

Prepare an analysis which shows the estimated effect on annual profit if all three proposals are implemented and which enables management to evaluate each proposal. The proposals for plastic eyes and the use of scrap fabric should be evaluated after the stitching elimination proposal has been evaluated. **(25 marks)**

**END OF EXAMINATION PAPER**