



PROGRAM : NATIONAL DIPLOMA
ENGINEERING : INDUSTRIAL

SUBJECT : **COSTING**

CODE : **BCO2111**

DATE : SUPPLEMENTARY EXAMINATION
25 JULY 2016

DURATION : (SESSION 1) 08:00AM-11:00AM

WEIGHT : 40: 60

TOTAL MARKS : 100

ASSESSOR : MR T.A. BALOYI

MODERATOR : MR P. DUBE

NUMBER OF PAGES : 6 PAGES

INSTRUCTIONS : ONLY ONE POCKET CALCULATOR PER CANDIDATE
MAY BE USED.

REQUIREMENTS : NONE

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INSTRUCTIONS TO STUDENTS

PLEASE ANSWER ALL QUESTIONS IN SEQUENCE

QUESTION 1

Use the following to answer questions

The following data (in thousands of rand) have been taken from the accounting records of Karling Corporation for the just completed year.

Sales	R990
Raw materials inventory, beginning	R40
Raw materials inventory, ending.....	R70
Purchases of raw materials.....	R120
Direct labor.....	R200
Manufacturing overhead	R230
Administrative expenses	R150
Selling expenses	R140
Work in process inventory, beginning	R70
Work in process inventory, ending	R50
Finished goods inventory, beginning	R120
Finished goods inventory, ending	R160

- 1.1 Calculate the cost of the raw materials used in production during the year (in thousands of rand). [3]
- 1.2 Calculate the cost of goods manufactured (finished) for the year (in thousands of rand). [3]
- 1.3 Determine the cost of goods sold for the year (in thousands of rand). [3]
- 1.4 Calculate the net operating income for the year (in thousands of rand). [4]
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QUESTION 2

Crichman Corporation uses direct labour-hours in its predetermined overhead rate. At the beginning of the year, the estimated direct labour-hours were 14,900 hours and the total estimated manufacturing overhead was R362,070. At the end of the year, actual direct labour-hours for the year were 16,000 hours and the actual manufacturing overhead for the year was R357,070. Calculate the Overhead at the end of the year was and state whether it was underapplied or overapplied. [8]

QUESTION 3

Megan Company uses the weighted-average method in its process costing system. The first processing department, the Welding Department, started the month with 10,000 units in its beginning work in process inventory that were 30% complete with respect to conversion costs. The conversion cost in this beginning work in process inventory was R19,200. An additional 60,000 units were started into production during the month. There were 19,000 units in the ending work in process inventory of the Welding Department that were 70% complete with respect to conversion costs. A total of R380,060 in conversion costs were incurred in the department during the month.

What would be the cost per equivalent unit for conversion costs for the month? (Round off to three decimal places.) [10]

QUESTION 4

The following production and average cost data for a month's operations have been supplied by a company that produces a single product.

Production volume	1,000 units	2,000 units
Direct materials	R4.00 per unit	R4.00 per unit
Direct labour	R3.50 per unit	R3.50 per unit
Manufacturing overhead.....	R10.00 per unit	R6.20 per unit

Calculate the total fixed manufacturing cost and variable manufacturing cost per unit. [11]

QUESTION 5

Decaprio Inc. produces and sells a single product. The company has provided its contribution format income statement for June.

Sales (8,800 units)	R528,000
Variable expenses	<u>290,400</u>
Contribution margin	237,600
Fixed expenses	<u>211,700</u>
Net operating income	<u>R 25,900</u>

If the company sells 9,200 units, what will be its net operating income? [10]

QUESTION 6

Use the following to answer questions

Dietz Company uses an activity-based costing system with three activity cost pools. The company has provided the following data concerning its costs and its activity based costing system:

Costs:

Manufacturing overhead	R440,000
Selling and administrative expenses	<u>240,000</u>
Total	<u>R680,000</u>

Distribution of resource consumption:

	Activity Cost Pools			Total
	Order Size	Customer Support	Other	
Manufacturing overhead	55%	35%	10%	100%
Selling and administrative expenses ...	30%	50%	20%	100%

The "Other" activity cost pool consists of the costs of idle capacity and organisation-sustaining costs. You have been asked to complete the first-stage allocation of costs to the activity cost pools.

- 6.1 How much cost, in total, would be allocated in the first-stage allocation to the Order Size activity cost pool? [3]
- 6.2 How much cost, in total, would be allocated in the first-stage allocation to the Customer Support activity cost pool? [3]
- 6.3 How much cost, in total, should NOT be allocated to orders and products in the second stage of the allocation process if the activity-based costing system is used for internal decision-making? [3]
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QUESTION 7

Use the following to answer questions

Hopkins Company manufactures a single product. The following data pertain to the company's operations last year:

Selling price per unit	R24
Variable costs per unit:	
Production	R8
Selling and administration	R2
Fixed costs in total:	
Production	R48,000
Selling and administration	R36,000

At the beginning of the year there were no units in inventory. A total of 12,000 units were produced during the year, and 10,000 units were sold.

- 7.1 Under variable costing, what is the unit product cost? [2]
- 7.2 Under absorption costing, what is the unit product cost? [3]
- 7.3 What will be the net operating income under variable costing? [7]
- 7.4 What will be the net operating income under absorption costing? [7]
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QUESTION 8

(Ignore income taxes in this problem.) Given the following data:

Initial investment.....	R80,000
Annual cash inflow.....	?
Salvage value.....	R0
Net present value.....	R13,600
Life of the project.....	6 years
Discount rate.....	16%

Based on the data given above, determine the annual cash inflow from the project after the initial investment. [10]

QUESTION 9

(Ignore income taxes in this problem.) ASSA ABLOY invested in a four-year project. ASSA ABLOY discount rate is 10%. The cash inflows from this project are:

Year	Cash Inflow
1	R4,000
2	R4,400
3	R4,800
4	R5,200

Assuming a positive net present value of R1,000, determine the amount of the original investment. [10]

TOTAL MARKS: 100
FULL MARKS: 100

Formulas

Current sales rands ÷ Current sales in units = Sales price per unit

Current variable expenses ÷ Current sales in units = Variable expense per unit

Current sales - Breakeven sales = Margin of safety

Breakeven sales = Fixed expenses ÷ Contribution margin ratio