

FACULTY/COLLEGE	College of Business and Economics
SCHOOL	School of Accounting
DEPARTMENT	Commercial Accounting
CAMPUS(ES)	SWC and DFC
MODULE NAME	Costing and Estimating 1A
MODULE CODE	BKM11A1/CAE01A1/FPO0AA1/BKM1AA0
SEMESTER	First
ASSESSMENT OPPORTUNITY,	Supplementary Summative Assessment
	Opportunity
MONTH AND YEAR	July 2019

ASSESSMENT DATE	July 2019	SESSION	
ASSESSOR(S)	Mr D du Plessis & M	s R Benedict	
MODERATOR(S)	Ms M Nevhutanda		
DURATION	180 minutes	TOTAL MARKS	100

NUMBER OF PAGES OF QUESTION PAPER (Including cover page)

6

INFORMATION/INSTRUCTIONS:

- Answer all questions. Show all calculations and workings clearly.
- Silent, non-programmable calculators may be used.
- Where applicable, round all calculations to two decimal places, unless stipulated otherwise.

QUESTION	TOPIC	MARKS	TIME
1	Introduction to Cost and Management Accounting	20	36 minutes
2	Material	20	36 minutes
3	Labour	20	36 minutes
4	Overheads	20	36 minutes
5	Cost-Volume-Profit Analysis	20	36 minutes
<u>.</u>	·	100	180 minutes

[20 MARKS]

Good Hardware Ltd (GH) is a manufacturer of different kitchen appliances. During March 2019, GH started prototyping a new type of gas stove in response to the load shedding that was experienced throughout the country. The following information relate to these prototypes:

Costs incurred are as follows:

Opening inventory of stove plates	R10 000
Stove plates purchased during March	R20 000
Closing inventory of stove plates	R5 000
Glass purchased for stove tops	R30 000
Labour hours worked	80 hours
Wages for labour per hour	R200
Marketer's salary allocated to the job	R20 000
Indirect materials	R10 000
Utilities cost allocated to the job	R18 000

REQUIRED:

1.1	Calculate the prime cost.	(4)
1.2	Calculate the conversion cost.	(4)
1.3	Calculate the manufacturing cost.	(4)
1.4	A cost accounting system is a set of systematic processes and	(3)
	procedures used to measure, record and report on cost accounting	
	data. It includes five distinct activities, name three of them.	

1.5 Draw and label a graph depicting the total mixed cost of a product **(5)** broken into its fixed and variable components.

PART A

[20 MARKS] (10 MARKS)

Soda Ltd manufactures different types of cold drinks. One of the raw material used in the manufacturing process is a gas called carbon dioxide. Soda Ltd uses 10 000 litres of carbon dioxide per day during the manufacturing process.

The gas level is reviewed at the end of each day and an order is placed if necessary. Delivery is reliably expected on the fourth day, if any delays occur delivery can be expected at the end of the seventh day. The cost of placing an order is R500 and the cost of carrying a litre of carbon dioxide gas is R1.

Assume Soda Ltd operates 250 days per year.

REQUIRED:

2.1	Calculate the Economic Order Quantity (EOQ).	(4)
2.2	Calculate the safety inventory.	(2)
2.3	Calculate the re-order level.	(2)
2.4	Calculate the economic average inventory.	(2)

PART B

(10 MARKS)

Soda Ltd purchases a special recyclable bottle that is used in the production of their cold drinks. The following transactions took place during May 2019:

May 01	Opening balance of bottles consisted of 20 000 units at a value of
	R0,80 each
11	Issued 12 000 bottles to the production department
18	Purchased 14 000 additional components at R0,90 each
25	Issued 12 000 bottles to production department
26	Production department returned 1 000 bottles to the warehouse

REQUIRED:

2.5 Determine the value of the closing inventory of Soda Ltd using the (10)First-In First-Out (FIFO) inventory valuation method.

[20 MARKS]

Susan Moloto works for X&Y Factory as a machinist. Her wages are calculated at R90 per hour. She worked 54 hours in the week ending 7 July 2019, which included 4 hours on Sunday.

X&Y Factory works a normal 45 hour, 5 day week, normal overtime is paid at 150% of normal pay and work done on a Sunday and a public holiday is remunerated at 200% of normal pay. Susan receives a clothing allowance of R600 per week.

Normal deductions are:

Description	Employer Contribution	Employee Contribution
Pension Fund	7% of normal pay	5% of normal pay
Medical Aid	6% of normal pay	7% of normal pay
Unemployment Insurance Fund	1% of normal pay	1% of normal pay
Pay As You Earn		20%

Additional information:

There were no public holidays during the week ending 7 July 2019.

Each employee receives a bonus, equal to four week's wages in the month of their birthday.

REQUIRED:

3.1	Calculate the net wage for Susan for the week ending 7 July 2019.	(10)
3.2	Calculate the cost to company of X&Y Factory for Susan for the	(7)
	2019 year.	
3.3	What is the formula to calculate the labour recovery rate?	(2)
3.4	The time at work not spent working is called?	(1)

[20 MARKS]

Ledwaba Ltd consists of three (3) production departments: Department 1, Department 2 and Department 3 and also two (2) service departments: Maintenance and Canteen. The following information was extracted from the accounting records of Ledwaba Ltd.

	Production	Production	Production	Maintenance	Canteen
	Dept 1	Dept 2	Dept 3		
Value of	60 000	270 000	180 000	30 000	-
equipment					
Number of	360	240	200	120	30
employees					
Floor space	400	300	350	120	50
(per m²)					
Machine	450	300	195		-
hours					
Material used	40 000	30 000	15 000	30 000	

Costs incurred:

Depreciation of factory equipment	R1 200
Rent of factory building	R2 510
Protective clothing	R7 600
Indirect material	R2 340

Secondary allocation for the maintenance department should be done first using the value of equipment as allocation basis followed by the secondary allocation for the canteen using the number of employees.

REQRUIED:

4.1 Do the primary and secondary allocation to determine the overhead costs to be recovered in each department. (20)

[20 MARKS]

PART A

Wily-Wily Elements Ltd's statement of comprehensive income for last year appears below:

Sales		R1 500 000
Cost of sales:		
Direct materials	R250 000	
Direct labour	150 000	
Variable overhead	75 000	
Fixed overhead	100 000	575 000
Gross profit		925 000
Selling, general, and		
administrative costs:		
Variable	200 000	
Fixed	250 000	450 000
Net operating income		<u>R 475 000</u>

REQUIRED:

5.1 Prepare the income statement in Marginal income costing system format. (5)

PART B

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The following information is made available to you.

Total sales value	R750 000
Total units sold	15 000
Break even units	10 000
Break even value	R500 000
Total cost	R600 000
Total fixed cost	R300 000

REQUIRED:

- 5.2 Calculate the following:
- (2) 5.2.1 Margin of safety in units. 5.2.2 Margin of safety in rands. (2) 5.2.3 Total variable costs. (2)
- 5.3 Draw the Cost Volume profit graph using all of the above information. (9)