



FACULTY/COLLEGE	College of Business and Economics
SCHOOL	School of Accountancy
DEPARTMENT	Commercial Accounting
CAMPUS(ES)	DFC
MODULE NAME	Financial Planning and Control 3A
MODULE CODE	BFA44A4
SEMESTER	First
ASSESSMENT OPPORTUNITY MONTH AND YEAR	Final Summative Assessment Opportunity June 2019

ASSESSMENT DATE	30 May 2019	SESSION	X
ASSESSOR(S)	Mr K Daly		
MODERATOR(S)	Mr R Rhodes, Mr R B Ford (External)		
DURATION	180 min	TOTAL MARKS	100

NUMBER OF PAGES OF QUESTION PAPER (Including cover page)	6
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INFORMATION/INSTRUCTIONS:

- This is a closed-book assessment.
- There are 4 questions.
- Unless otherwise indicated, work to 2 decimal places.
- Silent, non-programmable calculators may be used.
- Read the questions carefully and answer only what is required.
- Write neatly and legibly on both sides of the paper in the answer book, starting on the first page.

Question 1

(25 Marks)

The following data was taken from the records of Egoli Manufacturers for the month ended 31 December 2018:

Inventories 1 December 2018:

Raw materials (4 000 kg)	R12 000
Work in progress	R34 000
Finished goods (1 200 units)	R22 000

During the month:

50 000 kg of materials were purchased from Jay Jay Ltd at R4 per kg.
1 200 hours of direct labour were performed at R25 per hour.

The following expenses have been incurred for cash:

Indirect labour	R5 800
Fire insurance:	
Factory	R9 200
Sales office	R2 800
Repairs – factory	R9 000
Sales staff salaries	R100 000
Depreciation for December 2018:	
Factory plant	R12 000
Sales office furniture	R6 600

Sales: 12 400 units @ R35 each

Inventories 31 December 2018:

Raw materials	14 000 kg
Work in progress	R18 000
Finished goods	700 units

Other information:

FIFO is used for inventory valuation.

Required:

Prepare the following statements for Egoli Manufacturers the month ended 31 December 2018:

- | | | |
|-----|---------------------|-------------------|
| 1.1 | Manufacturing cost; | (14 marks) |
| 1.2 | Cost of sales; and | (5 marks) |
| 1.3 | Profit or loss. | (6 marks) |
| | | (25 marks) |

Question 2**(25 marks)**

MarketPoll & Co, a firm of marketing consultants, has been undertaking extensive market research (not yet completed) on behalf of a client company which has now been liquidated, and there is no chance of any future payment from that client. Another possible client has expressed an interest in the interim results of the incomplete research and has offered to pay R350 000 for completion.

Costs incurred to date on the research are R500 000, and the original client made a non-returnable payment of R150 000 at the commencement of the work. In addition, MarketPoll & Co's senior partner has spent 30 hours at a total cost of R12 000 attempting to attract a new client for the incomplete work.

The following information relates to completion of the research:

Materials and consumables

Total cost to complete is R50 000. Of this amount, R28 000 worth has already been purchased and has no alternative use, while the remainder will need to be specially purchased.

Labour

The cost of completing the research will be R80 000, but MarketPoll & Co's employees are extremely busy, so completion of this research will lose the firm sales as follows:

	R	R
Sales		260 000
Labour cost	80 000	
Expenses	60 000	
Fixed overhead absorbed	<u>40 000</u>	<u>(180 000)</u>
Profit		<u>80 000</u>

The expenses associated with the sales above will be avoided if the sales are lost.

Fixed overheads

Completion of the market research will incur an additional R50 000 of fixed overheads. MarketPoll & Co absorbs fixed overheads at 50 per cent of labour cost.

Required:

2.1 Identify the financial data which is relevant to a decision about whether to complete the research. Use the following table:

Item	Future?	Cash?	Differs?	Amount (R)

(12½ marks)

2.2 Use your figures from 2.1 to calculate the net relevant cost or net relevant benefit of completing the research and, on that basis, advise MarketMore & Co.

(12½ marks)
(25 marks)

Question 3

(20 marks)

PaveBrik CC manufactures paving bricks. Unit cost and selling price for one particular type of brick are as follows:

	R	R
Selling price		2.40
Direct materials	0.30	
Direct labour	0.60	
Fixed production overhead	0.24	
Variable selling costs	<u>0.18</u>	<u>(1.32)</u>

The direct materials required for production of this paving brick are in short supply, and cost R0.60 per kg.

PaveBrik CC can subcontract production of this type of paving brick at a unit cost of R1.50.

Required:

- 3.1 What is the contribution per kg of scarce material for this type of paving brick?
(7 marks)
- 3.2 Using this price per unit to subcontract, along with the data in Question 3.1, what is the extra cost per kg of direct material of subcontracting production of one paving brick?
(6 marks)
- 3.3 Discuss the circumstances under which it may be appropriate to set a selling price which is lower than cost.
(7 marks)

(20 marks)**Question 4**

(30 marks)

Cape Town Water Works is concerned about the level of leakage from its pipes, which has had an increasing impact on costs and quality of service delivery over the last few years. The Cape Town Water Works' engineers have prepared the following estimates of water leakage for next year:

	<i>Leakage (% of throughout)</i>
Best outcome (probability 0.15)	5
Most likely outcome (probability 0.55)	10
Worst outcome (probability 0.30)	15

Anticipated throughput of water next year is:

	<i>Litres (million.)</i>
Highest throughput (probability 0.15)	1 600
Most likely throughput (probability 0.60)	1 200
Lowest throughput (probability 0.25)	700

Question 4 (continued)

For each litre of water lost due to leakage next year, Cape Town Water Works will incur a variable cost of R0.03. Total fixed costs associated with leakage will be R4.5 million for all leakages in the range of 5 to 20 per cent of throughput inclusive. Cape Town Water Works' management has proposed a budget allowance of R10 million next year to cover the total cost (fixed plus variable) arising from leakages. You should assume statistical independence of all variables.

Required:

4.1 Determine the following:

- (i) expected value of leakage as a percentage of throughput;
- (ii) expected throughput in litres; and
- (iii) expected leakage in litres.

(6 marks)

4.2 Based on the expected leakage in litres calculated in 4.1 (iii) above, provide the Cape Town Water Works with an expected value for the total cost (fixed plus variable) likely to be incurred as a result of expected leakages next year.

(2 marks)

4.3 Complete the attached table and, from the completed table, determine the probability that the total cost of water leakages next year will not exceed the water company's budget allowance of R10 million.

(22 marks)

(30 marks)

[100 marks]

END OF PAPER

Question 4.3**(DETACH AND INSERT THIS SHEET INTO YOUR ANSWER BOOK)****Surname:**.....**Initials:**.....**Student No:****Possible outcomes, related costs and probabilities**

<i>Throughput (million litre)</i>	<i>Leakage as % of throughput</i>	<i>Leakage (million litres)</i>	<i>Total variable cost (Rm)</i>	<i>Total fixed cost (Rm)</i>	<i>Total cost (Rm)</i>	<i>Probability (throughput)</i>	<i>Probability (leakage %)</i>	<i>Joint probability</i>
1 600	10							
	20							
	30							
1 200	10							
	20							
	30							
700	10							
	20							
	30							