



**ZIMBABWE EZEKIEL GUTI UNIVERSITY**

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**FACULTY OF LAW, BUSINESS INTELLIGENCE AND ECONOMICS**

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**DEPARTMENT OF ACCOUNTING, FINANCE AND HUMAN CAPITAL  
MANAGEMENT**

**EXAMINATION PAPER**

**COURSE CODE** : CAC111  
**COURSE TITLE** : MANAGEMENT ACCOUNTING FOR BUSINESS  
**SPECIAL REQUIREMENTS** : No  
**DURATION** : 3 Hours  
**LEVEL** : 1.1  
**DATE** : JANUARY 2024 SUPP

**INSTRUCTIONS TO CANDIDATES:**

1. No cell phones are allowed in the examination venue
2. Use of silent, non-programmable calculators is allowed
3. Answer ALL questions in both Section A and Section B.
4. Begin each question on a new page.
5. The number of marks for each question or part question is shown in brackets [ ]

**SECTION A: [Total 30 marks]**

**ANSWER ALL QUESTIONS IN THIS SECTIONS (Each question carries 2 marks)**

**SELECT THE MOST APPROPRIATE ANSWER.**

1. Marginal costing may be preferred to absorption costing because it
  - A. Complies with the accruals or matching concept
  - B. Complies with International Accounting Standard (IAS) 2
  - C. Enables use of the of the opportunity cost approach
  - D. Ensures the recovery of total costs in sales pricing
  
2. If an initial investment is \$765,000, payback period is 4.5 years, then increase in future cash flow will be
  - A. \$5,645,000
  - B. \$6,442,500
  - C. \$3,442,500
  - D. \$5,442,500
  
3. Which of the following statements are true?
  - (i) A flexible budget can be used to control operational efficiency.
  - (ii) Incremental budgeting can be defined as a system of budgetary planning and control that measures the additional costs that are incurred when there are unplanned extra units of activity.
  - (iii) Rolling budgets review and, if necessary, revise the budget for the next quarter to ensure that budgets remain relevant for the remainder of the accounting period.
  - A. (i) and (ii) only
  - B. (ii) and (iii) only
  - C. (iii) only
  - D. (i) only

**The following data is given for questions 4 and 5 below.**

Trafalgar Limited budgets to produce 10,000 units of product D12, each requiring 45 minutes of labour. Labour is charged at \$20 per hour, and variable overheads at \$15 per labour hour. During September 2019, 11,000 units were produced. 8,000 hours of labour were paid at a total cost of \$168,000. Variable overheads in September amounted to \$132,000.

4. What is the correct labour efficiency variance for September 2019?
  - A. \$5,000 Adverse
  - B. \$5,000 Favorable
  - C. \$5,250 Favorable
  - D. \$10,000 Adverse

5. What is the correct variable overhead expenditure variance for September 2019?
- A. \$3,750 Favorable
  - B. \$4,125 Favorable
  - C. \$12,000 Adverse
  - D. \$12,000 Favorable
6. Process of making long-term decisions for capital investment in projects is called
- A. Lead budgeting
  - B. Lean budgeting
  - C. Capital budgeting
  - D. Relevant budgeting
7. In 'make or buy' decision, it is profitable to buy from outside only when the supplier's price is below the firm's own \_\_\_\_\_.
- A. Fixed cost
  - B. Variable cost
  - C. Total cost
  - D. Prime cost
8. If contribution margin percentage is 30%, selling price is \$5,000, then contribution margin per unit will be
- A. \$900
  - B. \$1,200
  - C. \$1,500
  - D. \$1,600
9. If payback period is 4 years and uniform increases in cash flows per year is \$2,750,000 then net initial investment can be
- A. \$10,511,000
  - B. \$12,105,000
  - C. \$1,100,000
  - D. \$11,000,000
10. If actual price input is \$700, budgeted price input is \$400 and actual quantity of input are 50 units, then price variance will be
- A. \$15,000
  - B. \$13,000
  - C. \$11,000
  - D. \$9,000
11. The difference between budgeted amounts and actual results is classified as
- A. Standard deviation
  - B. Variances
  - C. Mean average
  - D. Weighted average

12. The following are capital investment decision methods that take into consideration the time value of money
- A. Net present value, Accounting rate of return, Payback period
  - B. Net present value, Internal rate of return, Payback period
  - C. Internal rate of return, Accounting rate of return, Payback period
  - D. Net present value, Internal rate of return, Profitability index
13. Which of the following is the **BEST** description of zero-based budgeting?
- A. Zero-based budgeting is a technique applied in government budgeting in order to have neutral effect on policy issues
  - B. Zero-based budgeting requires a completely clean sheet of paper every year, on which each part of the organization must justify the budget it requires
  - C. Zero-based budgeting starts with the figures of the previous period and assumes a zero rate of change
  - D. Zero-based budgeting is an alternative name of flexible budget
14. How is target cost calculated?
- A. Desired selling price – actual profit margin
  - B. Market price – desired profit margin
  - C. Desired selling price – desired profit margin
  - D. Market price – standard profit margin
15. A new product is being developed. The development will take one year and the product is expected to have a life cycle of two years before it is replaced.

Which of the following statements are true of life cycle costing?

Statement 1 it is useful for assessing whether new products have been successful.

Statement 2 the individual profitability for products is less accurate.

- A. Both statements are true
- B. Both statements are false
- C. Statement 1 is true and statement 2 is false
- D. Statement 2 is true and statement 1 is false

[Total 30 marks]

**SECTION B [Total 70 marks]**

**Answer all questions in this section**

**Question 1**

- a) Hurekure (Pvt) Ltd. is a small engineering company located in Domboshava. It manufactures a variety of products through the application of common technology. The technology is centered on Machine X, which for the coming month has a fixed constraint of only 240 hours possible usage. The following product analysis is provided:

	Product			
	A	B	C	D
Monthly demand (units)	360	300	100	100
Selling price (\$)	20.00	30.00	40.00	50.00
Direct material (\$)	2.00	4.00	7.00	11.00
Direct labour (\$)	4.00	6.00	8.00	10.00
Production Overhead. (\$)	5.00	10.00	15.00	15.00
Net profit (\$)	9.00	10.00	10.00	14.00

Production overhead is fixed in nature and is absorbed using Machine X hours at the rate of \$30.00/hour.

**Required:**

Evaluate the optimum production mix for the coming month showing clearly the quantity for each product and the total net profit that will result for the period. **[10 marks]**

Primax Pvt. Ltd. Co. manufactures small batteries for Samsung phones. They have decided to manufacture unique batteries for a special market. The marketing department came up with a new selling price of \$1,050. Primax Pvt. Ltd management believes that they can easily grab a wider market if their batteries sell at the above selling price.

The following costs per battery were established:

Raw materials and other costs	\$240.00
Cost of other consumables	\$207.00
Indirect expenses/non-manufacturing	\$303.00

The target profit margin for the batteries is 30% of the target selling price.

**Required:**

- (i) Calculate the target cost of the batteries and the target cost gap. [3 marks]  
(ii) Comment on what management should do in order to close the target cost gap. [5 marks]  
(iii) In what situation does management continue with their original plan in view of the target gap. [2 marks]

[Total 20 marks]

### Question 2

- a) Limiting or scarce factors are factors that restrict output (such as skilled labour, machine capacity, materials availability, cash or funding, sales floor space, or factory floor space). Below is information regarding Mthuli Enterprises business construct.

Components	X	Y	Z
Contribution per unit	\$12	\$10	\$6
Machine hours per unit	6	2	1
Estimated potential sales demand (units)	2 000	2 000	2 000
Required machine hours	12 000	4 000	2 000
Contribution per machine hour	\$2	\$5	\$6
Ranking per machine hr	3	2	1

Capacity for the period is restricted to 12 000 machine hours.

#### Required:

Evaluate the optimum production mix for Mthuli Enterprises showing clearly contribution per limiting factor, the quantity for each product and the total net profit that will result for the period. [15 marks]

- b) A company makes a single product with a total capacity of 400 000 kilograms of soya beans per annum. Cost and sales data are as follows:

Selling price \$1 per kilogram  
Marginal cost \$ 0.50 per kilogram  
Fixed cost \$100 000

#### Required:

Draw a traditional break-even chart showing the following:

- (i) Anticipated profit at the expected production level of 400 000 litres. [2 marks]  
(ii) Margin of safety [2 marks]  
(iii) Break-even point in sales volume and sales revenue [2 marks]  
(iv) Fixed costs [1 mark]  
(v) Variable costs [1 mark]

- (vi) Total costs and  
(vii) The loss region

[1 mark]  
[1 mark]

[Total 25 marks]

### Question 3

The Engineering Company is thinking of investing in a new product - a safety alarm system which they expect will have a useful economic life of 6 years. They have come to you for advice as to whether they should go ahead with the project or not and provide you with the following information:

- a) A special machine will be required to produce the alarm systems. The Company has already got a machine in its factory which had cost \$800,000, 6 months ago. This machine was purchased to make another product but was not, in the end, needed for that product. It is expected that, for modifications costing \$120,000, the machine will be able to be used on the new product. If the machine is used then it will have to be serviced at a cost of \$5,000 per annum and will be sold for scrap of \$15,000 at the end of the products life. The company's depreciation policy is to depreciate the machine using the reducing balance method with a rate of 20% per annum.
- b) The Company expects to be able to make 1,500 safety alarm systems per annum which will be sold for £85.00 per unit for the first three years. Thereafter the alarm will be sold for \$70 per unit.
- c) Each unit of the new product requires:  
10 hours of labour  
2 kg of material A  
3 kg of material B
- d) At the present time skilled labour is paid at \$5.00 per hour. This will increase by 2% per annum.
- e) Material A costs \$1.00 per kg. The company has a lot of this material in stock, acquired when the price of the material was 80cents per kg last year. The current price of Material A is 84 cents. The company will have enough of Material A for the first two years of production but will have to buy Material A thereafter. It is expected that the price of Material A will increase by 5% per annum. Material B costs \$2.50 per kg and will have to be purchased each year. The price of Material B will increase by 10 cents per annum.
- f) The current level of fixed costs of the company are \$400,000 and this is not expected to increase due to the new product. The company will apportion \$50,000 of the fixed costs to the new product per annum.

- g) The project is deemed feasible due to a consultant's report which was undertaken 6 months ago for \$10,000.

**Required:**

- (i) What are relevant costs for investment decision purposes? Identify which costs are relevant and which are not for the above decision, giving reasons for your choices.  
**[10 marks]**
- (ii) Should the company invest in the new product assuming that the Company has a cost of capital of 10%?  
**[15 marks]**

**[Total 25 marks]**

**END OF EXAMINATION QUESTION PAPER**