

ZIMBABWE
UNIVERSITY



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FACULTY OF BUSINESS, ECONOMICS AND ACCOUNTING

DEPARTMENT OF ACCOUNTING AND FINANCE

EXAMINATION PAPER

COURSE CODE : CAC223
COURSE TITLE : COST AND MANAGEMENT ACCOUNTING
SPECIAL REQUIREMENTS : NONE
DURATION : 3 Hours
LEVEL : 2.2
DATE : '29 NOV 2022

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

Question One

Answer all questions in this section. Each question carries 2 marks.

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 Favourable
 - C. \$5,250 Favourable
 - D. \$10,000 Adverse

5. What is the correct variable overhead expenditure variance for September 2019?

- A. \$3,750 Favourable
- B. \$4,125 Favourable
- C. \$12,000 Adverse
- D. \$12,000 Favourable

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 pay back 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

Answer all questions in this section

Question One

A Company, which has a cost of capital of 10%, is considering whether to invest in projects X and Y. Information about these two projects is given as follows:

Project X

Project X involves the production and sale of a new product, the X. It is expected that 5000 units of X will be sold in year 1 for \$20 per unit. Variable costs for the X are expected to be \$10 per unit and fixed costs are expected to be \$40,000 per annum. Sales are expected to increase by 200 units per annum in years 2-5. Initial investment required is \$29,000; it is a machine which will be depreciated over 5 years on the straight-line basis and will have a nil value at the end of the period.

Project Y

Project Y involves the production and sale of a product called the Y. It is expected that 5000 units of Y will be sold in year 1 for \$25 per unit. Variable costs are \$12.50 per unit and fixed costs are \$53,500 per annum. Sales are expected to increase by 300 units in years 2 and 3. In years 4 and 5, the units sold are only expected to increase by 100 units per annum. Initial investment required is \$32,500; it is a machine which will be depreciated over 5 years on the straight-line basis and will have a nil value at the end of the period.

Required

- a Discuss the following investment appraisal techniques and discuss their advantages and limitations – accounting rate of return, payback period, net present value, IRR. **[10 marks]**
- b Evaluate Project X and project Y using all these methods. Which project should the company undertake and why if only one project can be undertaken? **[15 marks]**

[Total: 25 marks]

Question Two

Binga Limited is preparing its annual budgets for the year to 31 December 2021. It manufactures and sells one product, which has a selling price of \$150. The marketing director believes that the price can be increased to \$160 with effect from 1 July 2021.

The sales volumes for each quarter of the year will be as follows:

Quarter	Sales Volume
1	40 000
2	50 000
3	30 000
4	45 000

Sales for each quarter of 2022 are expected to be 40 000 units. Each unit of finished product, which is manufactured, requires four units of component R and three units of component T, together with a body shell S. These items are purchased from an outside supplier. Currently prices are:

Component R	\$8.00 each
Component T	\$5.00 each
Shell S	\$30.00 each

The components are expected to increase in price by 10% with effect from 1 April 2021; no change is expected in the price of the shell. Assembly of the shell and components into the finished product requires 6 labour hours: labour is currently paid at \$5.00 per hour. A 4 per cent increase in wage costs is anticipated to take effect from 1 October 2021.

Variable overhead costs are expected to be \$10.00 per unit for the whole of 2008; fixed production overhead costs are expected to be \$240 000 for the year, and are absorbed on a per unit basis. Stocks on 31 December 2020 are expected to be as follows:

Finished units	9000 units
Component R	3000 units
Component T	5500 units
Shell S	500 units

Closing stocks at the end of each quarter are expected to be as follows:

Finished units	10% of next quarter's sales
Component R	20% of next quarter's production requirements
Component T	15% of next quarter's production requirements
Shell S	10% of next quarter's production requirements

Required:

- a. Prepare the following budgets for Baker Limited for the year ending 31 December 2021, showing values for each quarter and the year in total:
- | | | |
|-------|----------------------------------|------------------|
| (i) | sales budget (in \$s and units) | (5 marks) |
| (ii) | production budget (in units) | (5 marks) |
| (iii) | material usage budget (in units) | (5 marks) |
| (iv) | production cost budget (in \$s) | (7 marks) |
- b. Sales are often considered to be the principle budget factor of an organisation.
- (i) Explain the meaning of the principle budget factor and indicate how it may apply to sales. **(3 marks)**

[Total: 25 marks]

Question Three

- (a) Magure Ltd manufactures a single product. Its costs and sales for the year ended 30 November 2018 were as follows

Units sold	21 000
Selling price	\$40 per unit
Variable costs per unit	
Wages	\$8
Materials	\$18
Overheads	\$4
Fixed costs	\$187 000

To improve profit for the year commencing 1 December 2018 the following changes are expected to take place:

Units to be sold are 22,500

Selling price is to be maintained at \$40 per unit

Wages are to be increased by 5% per unit

Material costs are to be reduced by 10% per unit, this being achieved by committing to a long-term contract with a single supplier only

Variable overheads are to be reduced by \$0.10 per unit

Fixed costs are to increase by \$20,000

REQUIRED

Calculate

- (a) The break-even in units and sales value [4 marks]
(b) The profit for the year [2 marks]
(c) The margin of safety in units and as a percentage [4 marks]
(d) The sales in units required to maintain the profit level of the year ended 30 November 2019 [5 marks]

[15 marks]

(b) TN (Pvt) Ltd produces and sells two products, M and N. Product M sells for \$7 per unit and has a total variable cost of \$2.94 per unit, while Product N sells for \$15 per unit and has a total variable cost of \$4.40 per unit. The marketing department has estimated that, for every five units of M sold, one unit of N will be sold. The organisation's fixed costs per period total \$123,600.

REQUIRED

Calculate the breakeven point for the two products in units and value. Advise management on the implications of the breakeven point calculated. [5 marks]

[Total: 20 marks]

END OF EXAMINATION QUESTION PAPER