BINDURA UNIVERSITY OF SCIENCE EDUCATION
FACULTY OF COMMERCE
DEPARTMENT OF ACCOUNTANCY

JUN 2024

PROGRAMME:

Bachelor of Accountancy (Honours) Degree

COST AND MANAGEMENT ACCOUNTING 2

(AC217) EXAMINATION PAPER

DURATION: 3 HOURS

INSTRUCTIONS TO CANDIDATES:

1. Answer all questions.
2. No cell phones are allowed in the examination venue.
3. Use of silent and non-programmable calculators is allowed.

SECTION A (Multiple Choice: 30 marks)

1. Which of the following actions removes or reduces an adverse direct labour efficiency variance?

   1. Engage highly skilled staff

   2. Ensure closer supervision of production workers

   3. decrease remuneration

   A 1 and 3

   B 1 and 2

   C 1, 2 and 3

   D 2 and 3

2. When preparing a production budget, the quantity to be manufactured equals:

   A Sales quantity +Opening Inventory +Closing Inventory

   B Sales quantity - Opening inventory + Closing Inventory

   C Sales quantity-Opening Inventory-Closing Inventory

   D Sales quantity + Opening Inventory –Closing inventory

3. Which statement is not correct about zero based budgeting?

   A It ignores previous budget provisions

   B It is based on justification of each priority item

   C It is an adjustment of previous budget items by a common index

   D It is cumbersome process in terms of time and other resources

4. A potential investment project has the following present values

   $9 700 positive at a discount rate of 5%

   $1 000 positive at discount rate of 12%

   $1 500 negative at a discount rate of 18%

   What is the internal rate of return of the investment?

   A 14, 4%
   B 15,6%
   C 16,25%
   D 17,4%

5. You are supplied with the following recorded production costs over the most recent half year:

Month	Units produced	Total Cost
Jan	3 000	$20 000
Feb	1 750	$14 750
March	2 000	$15 250
April	2 500	$16 200
May	1 600	$15 800
June	2 000	$15 900

Using High-Low method what are the fixed costs for each month?

A $9 000

B $15 800

C $20 000

D $11 000

6. A company has documented levels of demand for the standard wheelbarrow that it manufactures and sells per week as follows:

Units	Selling price per unit	Cost per unit
i. 550	$480	$240
ii. 600	$460	$210
iii. 650	$450	$200
iv. 700	$420	$190

What is the optimum selling price?

A $420
B $480

C $460
D $450

7. Which pricing technique involves feedback from potential customers and then adjusts product specifications so that they suit company policy profit margins?

      A. Cost plus pricing

      B. Premium pricing

      C. Penetration pricing

      D. Target costing

8. A company is in the process of setting up standard costs for the next period.

Product Beta uses two types of raw material, Zee and Yee. 7kg of material

Zee and 3kg of material Yee are needed, at a standard price of $4 per kg

and $9 per kg respectively. Direct labour is expected to cost $7 per hour and each

unit of Beta requires 5 hours of labour. Production overheads are to be recovered

at a rate of $6 per direct labour hour, and general overhead is to be absorbed at

a rate of 10% of production cost.

    What is the standard price per unit of Beta?

    A $132

    B $90

    C $120

    D $ 55

9. The quantity of raw material in the material purchases budget greater than can be traced to the quantity of raw material consumed in the raw material usage budget. Which of the following statements explains the anomaly?

A   Raw materials were misused in the production process

B   Finished goods closing inventories are expected to increase C

Finished goods closing inventories are expected to decrease D

Raw materials closing inventories are expected to decrease

10. Which of the following is a disadvantage of the payback method of investment appraisal?

A   It will result in an excessive investment in short-term projects

B   Its use will hinder liquidity

C   It is a fairly complex technique and not easily understood

D   It tends to maximise financial and business risk

11.   A company has decided to lease a machine. Six annual payments of $8 000 will be made with the first payment on receipt of the machine and the remaining payments to be done at year end. What is the present value of the lease payments at an interest rate of 10%.

A $30 328

B $34 840

C $38 327

D $48 000

12. Which statement is true about linear programming as a decision making tool?

A   It can help solve short term profit maximising scenarios where there are multiple products with a single limiting factor

B   It can help solve short term profit maximising scenarios where there are two products with several limiting factors

C   It can help solve short term profit maximising scenarios where there are multiple products with several limiting factors

D   In can help solve short term profit maximising scenarios where there are no limiting factors

13. IMN Ltd manufactures two products which are Buttercup and Syrup and each product is made from the following mix of raw materials and labour. From the following information construct equations to solve the problem using linear programming:

	Buttercup	Syrup
Cream	0.5 litres	0.25 litres
Preservatives	2 grams	5 grams
Machine hours	30 minutes	45 minutes
Demand per week	200 kg	300 litres

Which is a non-binding constraint if the following resources are available: Cream 140 litres; Preservatives 1,6 kilograms and 345 machine hours?

     A   Cream
     B   Preservatives
     C   Demand for Syrup
     D   Machine hours

14. If the market can be split into different segments and each segment has its own demand function, which pricing technique can be used to maximise profits?

     A   Penetration pricing

     B   Price differentiation

     C   Price scheming

     D   Loss leader pricing

15. Which of the following decision making tools can be used to find the optimum production level where you have more than two products being manufactured and you are faced with several limiting factors?

     A Contribution per limiting factor technique
     B Linear programming
     C Simplex method
     D Both B and C above

SECTION B (70 marks)

Question 1

Dande Fabricators Ltd manufactures a special component for the motor industry. Mrs Kaseke, the cost and management accountant, prepared the following abridged income statement for the year ended 31 December 2022:

		$
Sales (unit selling price $50)		885 000
Less: variable costs:		
Direct material	123 900	
Direct labour	141 600	
Other	88500	(354 000)
Contribution margin		531 000
Less fixed costs:		
Production	255 000	
Selling	145 000	(400 000)
Profit before tax		131 000

In light of depressed trading conditions, management feels that the above results are far from satisfactory. The following courses of action are suggested.

Course 1

Due to trade union demands, direct labour costs per unit will increase by 10%. However, a new manufacturing process will reduce raw material costs by 8% across the board. This new process will result in the unavoidable increase in fixed costs of $35 000. Improved distribution channels will result in a 25% increase in unit sales. The increase in unit sales will also be aided by a $2,00 decrease in the unit selling price.

Course 2

An intensive advertising campaign costing $100 000 will increase sales volumes by 30%, despite an increase of 5% in the unit selling price. Increased production will result in certain economies of scale, notably a 15% reduction in direct material cost per unit. An advisor has informed the trade unions to increase wage demand to 15% because it is said when output increases the cost per unit decreases and therefore the company will realise higher profit from increased output volume.

Required:

For each of the two independent courses of action calculate:

(a) the effect on the net income before taxation   (14 marks)

(b) Breakeven Sales volume   (8 marks)

(c) Margin of safety   (3 marks)

[Total 25 marks]

Question 2

The Gadzirai Ltd, a medium-sized company, produces a single product in Mt

Darwin. For control purposes, a standard costing system was recently introduced

and is now in operation.

The standards set for the month of May 2022 were as follows:

Production and sales	16 000 units
Selling price (per unit)	$140

Materials:

Material X	6 kilos per unit at $12.25 per kilo
Material Y	3 kilos per unit at $3.20 per kilo

Labour	4.5 hours per unit at	$8.40 per hour

Overheads (all fixed) at $86 400 per month are not absorbed into the product costs.

The actual data for the month of May 2022 were as follows:

Produced 15 400 units, which were sold at $138.25 each.

Materials
Used 98 560 kilos of material X at a total cost of $1 256 640
Used 42 350 kilos of material Y at a total cost of$132 979

Labour
Paid an actual rate of $8.65 per hour for labour. The total amount paid out amounted to $612 766

Overheads (all fixed) $96 840.

Required:
(a)   Prepare a standard costing profit statement, and a profit statement based

on actual figures for the month of May using a marginal costing approach.

(6 marks)

(b)   Prepare a statement of the variances which reconciles the actual with the standard profit or loss figure.   (9 marks)

(c)   Explain briefly the possible reasons for inter-relationships between material variances and labour variances.   (10 marks)

[Total 25 marks]

Question 3

Bems limited has recently appointed a new managing director. After completing a review of the company's machinery, he reported to the board of directors that the present machinery was obsolete and incapable of sustaining high production levels, without frequent breakdowns and that the quality of present production was substandard. The following information was available on the robots being considered for purchase:

	Robot A	Robot B	Robot C
	$millions	$millions	$millions
Purchase of machines	10,0	9,0	15,5

1. Estimate cash inflows:

	Robot A	Robot B	Robot C
Year 1	3	3	3
Year 2	3.5	3	5
Year 3	4	3.5	6
Year 4	4	4	6

2. The company's cost of capital is 12%

3. Owing to their productive efficiency, the robots would make the following number of workers redundant:

Robot A	Robot B	Robot C

	No. Of workers	No. Of workers	No. Of workers
At end of year 1	50	50	50
At end of year 2	60	60	80

4.   The workers unions were opposed to the implementation of robotics, but in   negotiations they had indicated that they would agree to the following: Redundant workers should each receive:

(i) an amount equal to half a year's wages at the end of the year in which they were made redundant, and

(ii) an additional flat rate terminal payment of $2,000 per worker.

Note: The average annual wage is $6,000.

5.   All estimated net cash inflows arise at the end of the relevant year. The cash inflows in (i) above do not take into account the redundancy payments.

Required:

(a)   Use the Net Present Value method to evaluate each of the robots being considered for purchase.   (12 marks)

(b) Indicate which robot should be purchased, based on your calculations.

(2 marks)

(c) Highlight any qualitative aspects to be considered.   (6 marks)

[Total 20 marks]

END OF QUESTION PAPER