BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF COMMERCE

DEPARTMENT OF ACCOUNTANCY

APR 2025

PROGRAMMES: Bachelor of Accountancy (Honours) Degree

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COST AND MANAGEMENT ACCOUNTING 1 (AC215)

EXAMINATION

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DURATION: 3 HOURS (100 marks)

INSTRUCTIONS TO CANDIDATES:

1. Answer all questions.
2. Use of silent and non-programmable calculators is allowed.
3. Start each question on a fresh page.
4. No cell phones are allowed in the examination room.

1. Which of the following is a calculation of minimum inventory level?
   A. Re-order level minus average usage in average lead time
   B. Re-order level minus maximum usage in maximum lead time
   C. Re-order quantity minus maximum usage in maximum lead time
   D. Re-order quantity plus re-order level minus minimum usage in maximum lead time
2. Holding costs are included in the EOQ (Economic order quantity) model. Which of the following are examples of holding costs?
   1 Warehouse rent
   2 Interest on inventory investment
   3 Carriage inwards
   4 Risk of inventory theft and obsolescence

   A. 1 and 2 only
   B. 1 and 3 only
   C. 3 and 4 only
   D. 1,2 and 4

3. Buttercup and Stork margarine arise from the same joint process and they can be sold soon after split-off point. The following information is available for the outgoing period, assuming there were no opening inventories of either product.

   Joint costs were $97 020.

| Product | Units produced | Units sold | Selling price per unit |
|---|---|---|---|
| Butter cup | 10 000 | 8 000 | $2,50 |
| Stork | 8 000 | 6 000 | $3,00 |

   Using the sales value at split-off point method to apportion joint production costs, what was the value of closing inventory of stork margarine in the last period?

   A. $9 900
   B. $11 880
   C. $10 780
   D. $8 624

4. PQ Ltd produces four different chemicals, which are Q, R, S and T from the same initial process. Budgeted information for the forthcoming financial year is as follows:

| | |
|---|---|
| Raw material cost | $134 000 |
| Initial processing cost | $232 000 |

| Product | Output | Sales price/unit at Split -off-point | Sales $ | Additional processing cost $ |
|---|---|---|---|---|
| Q | 400 000 | $0,86 | 384 000 | 80 000 |
| R | 90 000 | $0,78 | 116 000 | 64 000 |
| S | 5 000 | $3,20 | 16 000 | - |
| T | 9 000 | $10,07 | 120 000 | 4 000 |

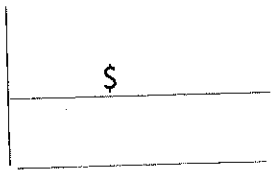
PQ Ltd uses the physical units method to apportion joint costs.

Which decision will maximise profit?

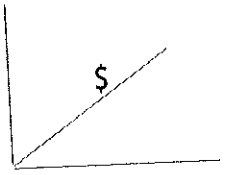
A. Sell all products after further processing
B. Sell R only after further processing and all others at split-of-point
C. Sell T only after further processing and all others at split-off-point
D. Sell all products at Split-off-point.

The following diagrams relates to questions 5 and 6

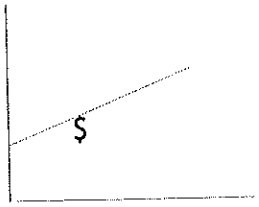
Graph 1



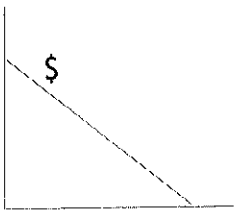

Graph 2



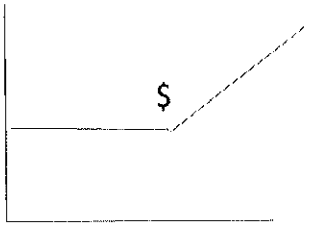

Graph 3




Graph 4




Graph 5




Which graph represents:

5. A linear variable cost-when the vertical axis represents cost per unit ?
   A. Graph 1
   B. Graph 2
   C. Graph 4
   D. Graph 5

6. A linear variable cost-when the vertical axis represents cost incurred?
   A. Graph 1
   B. Graph 2
   C. Graph 3
   D. Graph 4

7. How are abnormal gains accounted for in the process account?
   A. Debited in the process account at scrap value.
   B. Debited in the process account at cost per unit of normal output.
   C. Credited in the process account at the cost per unit of normal output.
   D. None of the above.

8. Information relating to two processes Cleaning and Cutting was as follows:

| Process | Normal loss | Input | Output |
|---|---|---|---|
| Cleaning | 7% | 7 000 litres | 5 900 litres |
| Cutting | 5% | 4 000 litres | 3 500 litres |

   Which statement below explains what happened in each process?

| | Cleaning | Cutting |
|---|---|---|
| A. | Abnormal gain | Abnormal gain |
| B. | Abnormal gain | Abnormal loss |
| C. | Abnormal loss | Abnormal gain |
| D. | Abnormal loss | Abnormal loss |

9. Direct allocation method
   A. Considers that service departments offer each other services
   B. Apportions service department costs to production departments only
   C. Apportions service department costs to production departments in a specified order.
   D. Takes into account both direct and indirect costs when apportioning Overheads.

10 Which observation below is correct about cost and management accounting reports?
   A. The reports serve a stewardship function
   B. The reports are used for decision making
   C. The reports are regulated by International Financial Reporting Standards
   D. The reports are used by shareholders

11 ABC Ltd absorbs production overheads using direct labour hours. The following budgeted and actual information applied in its last accounting period:

| | Budget | Actual |
|---|---|---|
| Production overhead | $360 000 | $356160 |
| Direct labour hours | 50 000 | 48 260 |
| Units produced | 40 000 | 38 760 |

At the end of the period, production overhead was reported as

A. $8688 over-absorbed
B. $7320 under-absorbed
C. $8688 under-absorbed
D. $7320 over- absorbed

12. Overheads in a factory are apportioned to 4 production departments J, K, L and M using either direct labour hours or machine hours as appropriate. The following information is available:

| | J | K | L | M |
|---|---|---|---|---|
| Overhead expenditure | $18 000 | $29 500 | $46 000 | $42 000 |
| Direct labour hours | 3 000 | 2 950 | 4 000 | 1 400 |
| Machine hours | 750 | 7 375 | 11 500 | 7 000 |

What are the overhead absorption rates for each department?

| | J | K | L | M |
|---|---|---|---|---|
| A. | $6/dlhr | $10/dlhr | $11, 50/dlhr | $30/dlhr |
| B. | $24/mhr | $4/mhr | $ 4/mhr | $6/mhr |
| C. | $24/mhr | $10/dlhr | $11, 50/mhr | $30/mhr |
| D. | $6/dlhr | $ 4/mhr | $4/mhr | $6/mhr |

13. A company operates a process costing system and had work -in-progress at the start of last month of 200 units (valued at $1400) which were 70% complete in respect of all costs. Last month a total of 1 800 units were completed and transferred to the finished goods warehouse. The cost per equivalent unit for costs arising last month was $12. The company uses the FIFO method of cost allocation.
What was the total value of the 1800 units transferred to the finished goods warehouse last month?

A. $21 600
B. $19 200
C. $20 600
D. $21 320

14. A company absorbs overheads on machine hour basis. In a period, actual machine hours were 22 400, actual overheads were $395 500 and there was over absorption of $7 700.
What was the budgeted overhead absorption rate per machine hour (to nearest $)?

A. $22
B. $17,66
C. $18
D. $17,31

15. You are supplied with the following information about raw material B.

| 2024 | **Details** |
|---|---|

| | | |
|---|---|---|
| January 1 | Opening inventory | 1000 kg at $3, 12 per kg |
| January 5 | issued to production | 600 kg |
| January 10 | Bought | 3500 kg at $3, 50 per kg |
| January 15 | issued to production | 1400 kg |
| January 25 | Issued to production | 2200 kg |
| January 31 | Bought | 800 kg at $3, 65 per kg |

What was the value of raw material B on January 31 2024 using the Weighted Average Cost method using periodic recording system?

A. $3 795
B. $4 090
C. $3 350
D. $3 970

## SECTION B

### Question 1

A factory has three production departments. The company's policy is to recover overheads on a suitable basis for each production department. For the month of July 2023, the following data is given to you:

| Department | Direct Materials ($) | Direct Wages ($) | Factory Overheads($) | Direct Labour Hours | Machine Hours |
|---|---|---|---|---|---|
| **Budgeted:** | | | | | |
| Machining | 650,000 | 80,000 | 360,000 | 20,000 | 80,000 |
| Assembly | 170,000 | 350,000 | 140,000 | 100,000 | 10,000 |
| Packing | 100,000 | 70,000 | 125,000 | 50,000 | - |
| **Actual :** | | | | | |
| Machining | 780,000 | 96,000 | 390,000 | 24,000 | 96,000 |
| Assembly | 136,000 | 270,000 | 84,000 | 90,000 | 11,000 |
| Packing | 120,000 | 90,000 | 135,000 | 60,000 | - |

One of the jobs which was done during the month, Job no CN-7444 had the following details:

| Department | Direct materials ($) | Direct wages($) | Direct Labour hours | Machine hours |
|---|---|---|---|---|
| Machining | 1,200 | 240 | 60 | 180 |

| | | | | |
|---|---|---|---|---|
| Assembly | 600 | 360 | 120 | 30 |
| Packing | 300 | 60 | 40 | - |

The company adds 30% on the factory costs to determine the selling price.

**Required:**

(i) Calculate the overhead absorption rates for each production department. **(12 marks)**

(ii) Determine the selling price of Job number CN-7444 . **(4 marks)**

(iii) Calculate under/over absorption per department and in total. **(6 marks)**

(iv) Explain any two possible treatments of over/under recovery of overheads and justify which method is more appropriate. **(3 marks)**

**[Total 25 marks]**

**Question 2**

Toys Limited manufactures and sells different types of children's toys utilising the services of skilled artisans who are paid at an average of $5 per hour. Availlable skilled labour hours in a year are 40 000. Planned production for the next year 2020, estimated cost and unit selling prices are given below:

| Toy model | A | B | C | D | E |
|---|---|---|---|---|---|
| Planned production (units) | 3 000 | 4 000 | 4 000 | 3 000 | 2 400 |
| Direct material cost($)per unit | 20 | 24 | 32 | 40 | 60 |
| Direct labour cost ($) per unit | 10 | 12 | 12 | 16 | 20 |
| Selling price ($) per unit | 70 | 92 | 95 | 110 | 180 |
| Expected maximum demand (units) | 5 000 | 6 000 | 6 000 | 4 000 | 4 000 |
| Contracted(units) | 200 | 200 | 200 | 200 | 200 |

Variable overhead cost amount to 50% of the direct labour cost.

Fixed costs are expected to be $333 000 for the year.

**Required:**

**(a)** Calculate the estimated profit for 2020 as per company's production plan assuming there is no shortage of skilled labour. **(10 marks)**

(b) Propose the optimum production mix given the shortage in skilled labour. **(10 marks)**

(c) Indicate the profit that can be made in your suggestion in (b) above

**(5 marks)**

**[Total: 25 marks]**

**Question 3**

A product is completed in two processes A and B. During April 2023, the input to process A of the basic raw material was 5,000 units at $2 per unit. Other information for the month is as follows:

| **Details** | **Process A** | **Process B** |
|---|---|---|
| Output (units) | 4,700 | 4,536 |
| Normal loss (% of input) | 5 | 2 |
| Scrap value per unit ($) | 4 | 5 |
| Direct wages ($) | 3,000 | 5,000 |
| Direct expenses ($) | 10,500 | 12,542 |

Total overheads amounted to $16,000 and were apportioned to the process accounts in proportion to direct wages. There were no opening or closing work-in-progress inventories.

**Required**

Prepare the following ledger accounts for April 2023:

(i) Process A **(6 marks)**

(ii) Process B **(6 marks)**

(iii) Abnormal loss **(3 marks)**

(iv) Abnormal gain **(3 marks)**

(v) Using your own example, explain the term equivalent units produced

**[2 marks]**

**[Total 20 marks]**

**END O EXAMINATION PAPER**