



**FACULTY OF BUSINESS**

**FINAL EXAMINATION**

Student ID (in Figures) : 

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Student ID (in Words) : \_\_\_\_\_

Course Code & Name : **ACC3213 MANAGERIAL ACCOUNTING**  
Semester & Year : MAY – AUGUST 2024  
Lecturer/Examiner : JAMES LIOW  
Duration : 3 Hours

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**INSTRUCTIONS TO CANDIDATES**

1. This question paper consists of 2 parts:  
PART A (50 marks) : Answer ONE (1) compulsory question. Answers are to be written in the Answer Booklet provided.  
PART B (50 marks) : Answer TWO (2) out of THREE (3) problem solving questions. Answers are to be written in the Answer Booklet provided.
2. Candidates are not allowed to bring any unauthorized materials except writing equipment into the Examination Hall. Electronic dictionaries are strictly prohibited.
3. This question paper must be submitted along with all used and/or unused rough papers and/or graph paper (if any). Candidates are NOT allowed to take any examination materials out of the examination hall.
4. Only ballpoint pens are allowed to be used in answering the questions, with the exception of multiple choice questions, where 2B pencils are to be used.

**WARNING:** The University Examination Board (UEB) of BERJAYA University College regards cheating as a most serious offence and will not hesitate to mete out the appropriate punitive actions according to the severity of the offence committed, and in accordance with the clauses stipulated in the Students’ Handbook, up to and including expulsion from BERJAYA University College.

**Total Number of pages = 8 (Including the cover page)**

**PART A : COMPULSORY QUESTION (50 MARKS)**

**INSTRUCTION(S)** : There is **ONE (1)** question in this section. Write your answers in the Answer Booklet(s) provided.

**QUESTION 1**

Orna Board Paper Bhd was established in Malaysia in 1994 and currently manufactures two types of bookcases (medium and large) for the local and overseas markets. The company uses variable costing to value production and inventory and prepares its budgets in advance for each quarter. The accountant has provided a range of information for the next quarter to 31 December 2024 as follows:

Projected sales for the next four months:

	<b>October 24 (unit)</b>	<b>November 24 (unit)</b>	<b>December 24 (unit)</b>	<b>January 25 (unit)</b>
Medium bookcases	5,500	4,100	6,000	4,800
Large bookcases	4,200	2,900	4,200	3,500

Medium bookcases sell for RM90.00 each and large bookcases sell for RM125.00 each.

Two direct materials are required in the production of the medium bookcases and large bookcases, they are birch plywood sheets and wooden dowels. The standard cost card for each of the bookcases is shown below:

	<b>Medium (RM)</b>	<b>Large (RM)</b>
Direct materials:		
- Birch plywood sheets (@RM24.00 per sheet)	36.00	48.00
- Wooden dowels (@RM0.10 per piece)	2.80	3.60
Direct labour (@RM16.40 per hour)	20.50	28.70
Variable production overheads (@RM6.00 per DLH)	7.50	10.50
<b>Total</b>	<b>66.80</b>	<b>90.80</b>

The company estimates that at 1 October 2024 inventory levels will be:

**Finished goods:**

Medium bookcases (units)	1,500
large bookcases (units)	1,100

To ensure that it maintains sufficient closing inventory of each type of bookcase company policy is to hold 20% of the next month's unit sales.

**Birch plywood sheets:**

Birch plywood sheets (sheets)	2,000
Wooden dowels (pieces)	5,000

For the plywood sheets and wooden dowels, the company intends to double inventory held at 1 October 2024 and maintain constantly at this level of closing inventory each month until 31 March 2025.

**Required**

Prepare the following budget for the quarter ending 31 December 2024:

- a) Sales budget in value for medium bookcases and large bookcases (4 marks)
  - b) Production budget (in unit and value) for medium bookcases and large cases (15 marks)
  - c) Purchases budget (in sheet/piece and value) for the two materials (21 marks)
  - d) Direct labour budget (in hours and value) (7 marks)
  - e) Variable production overhead budget (3 marks)
- [Total 50 marks]**

**END OF PART A**

**PART B : PROBLEM SOLVING QUESTIONS (50 MARKS)**

**INSTRUCTION (S) :** There are **THREE (3)** questions in this section, answer only **TWO (2)** questions. Write your answers in the Answer Booklet(s) provided.

**QUESTION 1**

**Part A**

Muda Technology Bhd (MTB) manufactures three semi-conductor components, X1, Y2 and Z3, of which unit costs, machine hours and selling prices are as follows:

	<b>X1 RM</b>	<b>Y2 RM</b>	<b>Z3 RM</b>
Selling price per unit	42.00	32.50	37.00
Direct materials at RM2.00 per kg	14.00	12.00	10.00
Direct wages at RM2.50 per hour	12.50	7.50	10.00
Variable overheads	5.00	3.00	4.00
Variable cost per unit	31.50	22.50	24.00
Fixed cost per unit	8.00	8.50	6.00
<b>Profit per unit</b>	<b>2.50</b>	<b>1.50</b>	<b>7.00</b>

Sales demand for the period is limited as follows:

	<b>Units</b>
Product X1	6,000
Product Y2	8,000
Product Z3	9,000

The production manager of MTB has informed the management accountant that the supply of labour and machine capacity in any period is unlimited. However, materials will be in short supply as a result of some suppliers ceasing to trade due to the recession. MTB can only source 114,000kg materials.

**Required**

- Calculate the total shortage of direct materials. (4 marks)
  - Calculate the order of priority of production. (6 marks)
  - Compute the optimal production schedule in units. (2 marks)
  - Prepare a profit statement based upon the production schedule in part (c) above. (3 marks)
- (Total Part A: 15 marks)

**Part B**

MTB makes two new semi-conductor components for its overseas market. The details unit cost of the components is as follows:

	<b>ZZ01 (RM)</b>	<b>ZZ02 (RM)</b>
Buy in price	14.00	17.00
Material	2.00	5.00
Labour	4.00	6.00

Variable production overheads	6.00	7.00
Fixed production overheads	4.00	3.00
<b>Total absorption cost</b>	<b>16.00</b>	<b>21.00</b>

The business wishes to maximise contribution and is considering whether to continue making the components internally or buy in from outside.

**Required**

- a) Determine which components should the company manufacture or buy in from outside in order to maximise its contribution. (4 marks)
- b) Justify whether fixed production overheads should be taken into consideration when making make or buy decision. (2 marks)

**Part C**

MTB has another plant located in Klang which only manufactures a single component. The details cost of the component are as follows:

	<b>RM</b>
Selling price per unit	20.00
Variable production overheads per unit	8.00
Fixed production overheads	48,000

The monthly capacity of the plant is 10,000 units but MTB is currently producing and selling only 5,000 units.

In the month of May 2024, a foreign distributor offers to purchase 3,000 units for RM10.00 per unit. Since this is a one-time order, it would not affect the company's regular business.

**Required**

- c) Justify whether MTB should accept this special order. (2 marks)
- d) Calculate the incremental profits If MTB accepts the special offer. (2 marks)

(Total Part B: 10 marks)

**[Total 25 marks]**

**QUESTION 2**

**Part A**

Talam Corporation Bhd is in the process of preparing budgets for the period January 2024 to March 2024. The following information has been provided to assist in the budgeting process:

- (i) The cash balance on 1 January 2024 is expected to amount to RM14,000.
- (ii) Budgeted monthly sales units for the first four months of 2024 are as follows:

	<b>Units</b>
January	12,000
February	18,000

March	15,000
April	14,000

- (iii) Selling price is RM5.00 per unit for January 2024 and expected to rise to RM7.00 in March 2024.

Sales are 30% cash and 70% credit. Credit sales are collected over a two-month period, 60% in the month of following sale and 40% in the second month following sale.

Total sales revenue in November 2023 and December 2023 amounted to RM45,000 and RM54,000 respectively.

- (iv) Cost of sales is expected to be 75% of sales revenue each month.
- (v) The business maintains its closing inventory levels at 60% of the following month's cost of sales. Inventory at the beginning of January 2024 is expected to amount to RM27,000.
- (vi) 65% of inventory purchased is paid for in the month of purchase and the remaining 35% is paid for in the month following purchase. At the 31 December 2023 amounts owed for purchases are RM13,800.
- (vii) A loan of RM40,000 is expected to be received in January 2024. The company will repay this loan evenly over 20 months commencing in February 2024.
- (viii) A van which cost RM8,000 when purchased second hand three years ago is expected to be sold in March 2024 for RM3,300.
- (ix) Equipment costing RM12,000 will be purchased in January 2024 and paid for in February 2024.

- (x) Operating expenses are paid as incurred. These have been estimated as follows:

January	12,800
February	18,900
March	14,600

The above amounts include depreciation on property, plant and equipment of RM2,000 per month.

**Required**

Prepare a cash budget for each of the three months from January 2024 to March 2024.

(11 marks)

**Part B**

The following information relates to an investment project which is being evaluated by the directors of Fern Corporation Bhd, a listed company whose shares are listed on the Bursa Malaysia.

The investment project is the purchase of a plant machinery which is payable at the start of the first year of operation at RM3.9 million with an estimated life span of 5 years. It is expected to receive a scrap value at the end of the asset's useful life.

The forecast cash inflows for this plant machinery are as follows:

Year	1 RM'000	2 RM'000	3 RM'000	4 RM'000	5 RM'000
Net cash inflows	950	1,120	1,450	1,550	825
Scrap value					100

Assume that net cash inflows occur at the end of the years to which they relate.

The following items are not forecasted in the above net cash inflows:

- (i) The annual fixed costs (cash outflows) of RM80,000.
- (ii) Straight-line depreciation of the new plant machinery.

The directors believe that this investment project will increase shareholder wealth if it achieves a return on capital employed greater than 20%.

The discount factors of a single cash flow are as follows:

Period	20%	10%
1	0.8333	0.9091
2	0.6944	0.8264
3	0.5787	0.7513
4	0.4823	0.6830
5	0.4019	0.6499

**Required**

- a) Calculate the following:
  - (i) Accounting rate of return (3 marks)
  - (ii) Payback period (3 marks)
  - (iii) Net present value of the investment (3 marks)
  - (iv) Internal rate of return (*suggest to use discount rate of 10%*) (2 marks)
  
- b) Recommend whether the company should undertake this investment, giving reasons based on the net present value and internal rate of return that you have calculated in item (a) above. (3 marks)

(Total Part B: 14 marks)

**[Total 25 marks]**

**QUESTION 3**

Super Frame Bhd manufactures a range of picture frames which it supplies to retailers throughout Malaysia. The company uses a standard marginal costing system and the most popular picture frame produced by the company is the 'Vector Deco' which features gold geometric designs.

The company purchases the pre-formed frame which incorporates the front decorative part and a wood laminate back from China, and using clear glass and brass plated hooks to assemble the complete frame.

The production and sales for the month of March 2024 are budgeted at 5,000 units and the following are the budgeted costs relating to the 'Vector Deco' frame:

	Per unit (RM)	Total (RM)
Sales	14.50	72,500
Less costs:		
Pre-formed frame	3.55	17,750
Glass: (0.25 square metres per frame @ RM3.40 per square metre)	0.85	4,250
Brass plated hooks (2 hooks per frame @ RM0.65 each)	1.30	6,500
Assembly labour (0.25 hr per frame @ RM11.00 per hour)	2.75	13,750
Variable production overhead: (0.25 hr per frame @ RM1.30 per assembly labour hour)	0.33	1,625
Fixed production overhead		8,725
Total costs		52,600
<b>Profit</b>		<b>19,900</b>

For the month of March 2024, the company produced and sold 4,960 'Vector Deco' frames and recorded the following actual results:

	RM
Sales	72,912
Less costs:	
Pre-formed frame (@ RM3.50 each)	17,360
Glass (based on 1,250 square metres)	4,275
Brass plated hooks (based 9,920 hooks @ RM0.625 each)	6,200
Assembly labour (based on 1,220 hours)	13,481
Variable production overhead (based on assembly labour hours)	1,647
Fixed production overhead	8,215
Total costs	51,178
<b>Profit</b>	<b>21,734</b>

**Required**

Calculate the following variances for the period:

- |  |           |
|--|-----------|
| a) Selling price                             | (2 marks) |
| b) Sales volume profit                       | (3 marks) |
| c) Direct material price for the 3 materials | (6 marks) |
| d) Direct material usage for the 3 materials | (6 marks) |
| e) Assembly labour rate                      | (2 marks) |
| f) Assembly labour efficiency                | (2 marks) |
| g) Fixed overheads expenditure               | (2 marks) |
| h) Fixed overheads volume                    | (2 marks) |

**[Total 25 marks]**

**END OF QUESTION PAPER**