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BERJAYA
UNIVERSITY COLLEGE

FACULTY OF BUSINESS

FINAL EXAMINATION

Student ID (in Figures) :														

Student ID (in Words) : ________________________________

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Course Code & Name	:	**ACC3213 MANAGERIAL ACCOUNTING**
Semester & Year	:	MAY – AUGUST 2023
Lecturer/Examiner	:	JAMES LIOW
Duration	:	3 Hours

<u>INSTRUCTIONS TO CANDIDATES</u>

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.**

<u>WARNING:</u> 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

HW Bhd produces a range of health products and supplements for the Malaysian markets. The management accountant is busy preparing budgets for the period from January to March 2023 and is currently compiling pertinent information relating to one of the company's newest products: Eazy.

Eazy is a refreshing eye spray mist based on two key organic ingredients: mineral water and green tea extract. There is a simple manufacturing process and the product is manufactured in a 250ml size for everyday use. Details relating to this product are shown below:

(i) Projected sales for the first quarter of 2023 are as follows:

	January	**February**	**March**
Sales in units (250ml bottles)	4,300	4,380	5,020

The selling price of Eazy is RM3.10 per bottle.

(ii) At 1 January 2023, the company expects to have an opening inventory of 980 bottles of Eazy.

(iii) The company uses 3 different materials to produce Eazy, mineral water, green tea extract and recycled plastic bottles.

The costs incurred to produce one 250ml bottle of Eazy are shown in the table below:

	Input	**RM per bottle**
Mineral water	225ml	0.18
Green tea extract	25ml	0.30
Recycled plastic bottle	250ml	0.10
Direct labour (at RM10.00 per hour)	0.06 hour	0.60
Variable production overhead		0.40
Total cost per bottle		**1.58**

The company has arranged to purchase top quality mineral water at a cost of RM0.80 per litre and green tea extract at a cost of RM12.00 per litre.

(iv) At 1 January 2023, the company expects to have 2,000 litres of mineral water and 1,000 litres of green tea extract in inventory. It also expects to have 1,000 recycled plastic bottles in inventory.

(v) Projected closing inventory levels for the finished product and raw materials are as follows:

	January	**February**	**March**
Eazy (250ml bottles)	1,000	1,500	2,000
Mineral water (litres)	2,108	3,010	4,108
Green tea extract (litres)	1,000	1,000	2,000
Recycled plastic bottles	1,000	1,500	2,000

Required

For the first three months of 2023, prepare the following budgets:

a)	Sales budget (in RM)	(3 marks)
b)	Production budget (in litres)	(9 marks)
c)	Materials budget for the 3 materials (in litres/bottles and RM)	(27 marks)
d)	Direct labour budget (in utilisation hours and RM)	(6 marks)
e)	Variable production overheads (in RM)	(5 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

AZ Sdn Bhd (AZ) manufactures and sells three products (X, Y and Z). Sales demand in the following period is estimated to be:

Product	Units
X	24,000
Y	22,000
Z	13,000

No finished goods stock is carried.

AZ uses the direct material M9 in the production and the following are the input of direct material needed in all the three products:

Product	Input (kg per unit)
X	0.2
Y	0.3
Z	0.4

20,000 kg of direct material M9 are available in the following period.

The three products are manufactured by a team of direct operatives whose capacity is 9,200 direct labour hours. All direct operatives are paid at a rate of RM9.00 per hour.

The following unit cost information is available:

	X (RM per unit)	Y (RM per unit)	Z (RM per unit)
Selling price	9.00	14.00	16.00
Direct materials	2.50	5.00	4.90
Direct labour	0.90	1.80	2.25
Variable overheads	0.40	0.80	1.00
Fixed overheads	3.90	3.90	3.90

Required

a) Determine which is the limiting factor and calculate the shortage or excess arising from the situation above. (4 marks)

b) Calculate the order of priority of production. (5 marks)

c) Compute the optimal production schedule in units. (3 marks)

d) Prepare a profit statement based upon the production schedule in (c) above. (4 marks)

[Total Part A: 16 marks]

Part B

Candy Company manufactures and sells a single product called Lollipop. Operating at capacity, the company can produce and sell 31,250 bags of Lollipops per year. Current year's budgeted production is at the capacity of 80%. Costs associated with this level of production and sales are given below:

	RM
Direct material	0.15
Direct labour	0.80
Variable production overheads	0.30
Fixed production overheads	0.90
Variable selling overheads	0.40
Fixed selling overheads	1.60
Total costs	**4.15**

The Lollipops normally sell for RM6.00 bag each.

A large retail chain has offered to purchase 5,000 bags of Lollipops at a price of RM4.50. There would be no sales commissions on this order. However, the following will affect the costing:

- Variable selling expenses would be reduced by 25%.
- Candy Company would have to purchase a special machine to engrave a special picture on the Lollipops. This machine would cost RM3,000.
- Also, this extra printing step would see an increase of 10% in direct labour and variable production overheads.

Required

Using appropriate workings:

a) Calculate the balance of spare capacity. (2 marks)

b) Calculate the increase or decrease in contribution margin. (6 marks)

c) Advise the company whether it should accept the one-off order. (1 marks)

[Total Part B: 9 marks]

[Total 25 marks]

QUESTION 2

Part A

Geometry Bhd is in the process of preparing budgets for the period April to June 2023. The following information has been provided to assist in the budgeting process:

(i) Budgeted monthly sales revenue is as follows:

Month	**RM**
March	55,000
April	60,000
May	80,000
June	70,000
July	85,000

Sales are 30% cash and 70% credit. Credit sales are collected in the month following sales.

(ii) Cost of sales is expected to amount to 65% of sales revenue each month.

(iii) Closing inventory levels are held at 60% of the following month's cost of sales. Inventory at the beginning of April is expected to amount to RM23,000.

(iv) 55% of inventory purchased is paid for in the month of purchase. The remaining 45% is paid for in the month following purchase. At the 31st March trade payables are RM12,600.

(v) A short term loan of RM18,000 is expected to be received in early June.

(vi) A van which cost RM12,000 when purchased second hand three years ago is expected to be sold in June 2023 for RM5,000. At this time the carrying amount of the van is RM6,700.

(vii) Equipment costing RM8,200 will be purchased and paid for in May. It will be depreciated on a straight-line basis over four years.

(viii) Operating expenses are paid as incurred and have been estimated as follows:

Month	**RM**
April	14,500
May	17,300
June	18,100

(ix) The cash balance on 1 April is expected to amount to RM68,000.

Required

a) Prepare a cash budget for each of the three months from April 2023 to June 2023. (9 marks)

b) Outline any **TWO (2)** potential benefits from the preparation of a cash budget. (2 marks)

[Total Part A: 11 marks]

Part B

Samling Bhd is planning to introduce a new product line which required an investment in new equipment with an estimated lifespan of 5 years.

The new equipment is expected to cost RM925,000 with a residual value of RM125,000 after 5 years.

The forecast cash inflows for this new product are as follows:

	RM'000
Year 1	225
Year 2	315
Year 3	360
Year 4	405
Year 5	360

The company is also budgeting for annual fixed costs of RM80,000 (excluding straight-line depreciation of the new equipment).

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

The company's cost of capital is 15% per annum.

Discount rate	Year 1	Year 2	Year 3	Year 4	Year 5
10%	0.9091	0.8264	0.7513	0.6830	0.6499
15%	0.8696	0.7561	0.6575	0.5718	0.4972

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 (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
Muhibbah Bhd produces and sells one product only. The standard cost and selling price for one unit is as follows:

Production	Input	Price/Rate
Direct material	6.5 kilograms	RM18.00 per kg
Direct labour	2.5 hours	RM9.00 per hour
Variable production overheads	2.5 hours	RM2.00 per hour

Other information:

Selling price	RM385.00 per unit
Budgeted fixed production overhead cost	RM60,000
Production and sales	1,000 units

During May 2023 the actual results were as follows:

Production	1,100 units
Sales: 900 units sold	RM328,500
Direct materials: 8,800 kgs	RM132,400
Direct labour: 4,100 hours	RM41,000
Fixed production overheads	RM65,500

Required

a) Calculate the standard marginal cost for one unit. (3 marks)

b) Calculate the following variances for the period:

   (i) selling price
   (ii) sales volume profit
   (iii) direct material price
   (iv) direct material usage
   (v) direct labour rate
   (vi) direct labour efficiency
   (vii) fixed overheads expenditure
   (viii) fixed overheads volume

(All parts carry equal marks: 16 marks)

c) Outline **TWO (2)** possible reasons to explain the direct material price variances and direct material usage variances as calculated in part (b) above. (6 marks)

[Total 25 marks]

END OF QUESTION PAPER