KOLEJ POLY-TECH MARA

FINAL EXAMINATION

COURSE	**:**	**MANAGEMENT ACCOUNTING**
COURSE CODE	**:**	**PMA3143**
DURATION	**:**	**2 HOURS**

INSTRUCTIONS TO CANDIDATES:

1. This question paper consists of **THREE (3)** questions.
2. Answer ALL questions in the Answer Booklet provided.
3. Please check to make sure that this examination pack consists of:
   i. The Question Paper
   ii. An Answer Booklet
   iii. Appendix 1
4. Do not bring any material into the examination hall unless permission is given by the invigilator.
5. Please write your answer using a ball-point pen.

MYKAD NO : ______________________________

ID. NO. : ______________________________

LECTURER : ______________________________

SECTION : ______________________________

DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE TOLD TO DO SO

The question paper consists of 06 printed pages

1. **(12 points)**

Brush Masters Sdn Bhd is a manufacturing company specialising in the production and sale of beautifully crafted paintings, which are distributed throughout Malaysia. A unique collection of decorated artworks has been introduced to the market, priced at RM95 per unit. The budget for the production and distribution of 10,000 units of paintings in the current year includes the following data:

Variable cost per unit:

Production cost	RM30.00
Distribution expense	RM22.40

Fixed expenses:

Manufacturing overhead	RM22,500
Selling and administrative expenses	RM15,000
Advertising expenses	RM10,500

40% of the selling and administrative expenses are variable costs and the remaining are fixed expenses.

Required:

a. Calculate the company’s break-even point in units and ringgit. (7 points)
b. Calculate the margin of safety in percentage. (2 points)
c. Suppose that the selling price increases by 20% and advertising expenses increase by 10%, calculate the new break-even point in units. (3 points)

(Note: Show all calculations and round off your answer to two decimal points.)

2. **(21 points)**

A. Bagtopia Berhad have three product segments: gym bags, cross-body bags, and backpacks. In the present year, the demand for cross-body bags has decreased as a result of changing tastes and preferences, as seen in the profit statement provided.

	Gym Bags (RM)	**Cross-body Bags (RM)**	**Backpacks (RM)**	**Total (RM)**
Sales	500,000	200,000	350,000	1,050,000
Variable costs	(50,000)	(22,000)	(37,000)	(109,000)
Contribution margin	**450,000**	**178,000**	**313,000**	**941,000**
Rental of engraving equipment	240,000	130,000	175,000	545,000
Depreciation of special machine	20,000	15,000	25,000	60,000
Salary of product line supervisor	25,000	18,000	23,000	66,000
Rental of warehouse	35,000	13,000	24,000	72,000
Allocated general factory overhead	10,000	7,000	8,000	25,000
Utility expenses	4,000	5,000	3,000	12,000
General administrative overhead	10,000	20,000	25,000	55,000
Net Income / (loss)	**106,000**	**(30,000)**	**30,000**	**106,000**

Additional information:

i. The rental agreement for the engraving equipment, which is allocated to the product segment, will expire in two years.

ii. The special machine has no resale value or alternative functions.

iii. Rental of the warehouse is directly related to each product and is not shared between product segments.

iv. 30% of the allocated general factory overhead for the cross-body bags will be absorbed by other segments.

v. 40% of utility expenses for the cross-body bag can be avoided.

vi. 1/4 of the general administrative overhead is advertising directly incurred for the product.

Required:

Prepare an analysis showing the impact of dropping the cross-body bag product segment on the company's profit. Provide a decision and give a reason for your answer. (10.5 points)

B. Elite Company manufactures automotive wipers specifically for automobile assembly firms. These wipers feature a special ceramic-coated blade, supplied by the Experts Limited in Indonesia. The company typically purchases 20,000 units per quarter based on production demand. Each blade is currently purchased at RM22 per unit, with an additional transportation fee of RM0.08 per unit.

Alternatively, the company could manufacture the blades in-house, utilizing its idle capacity. In-house production would cost RM12.60 per unit for raw materials and RM7.40 per unit for labour. The company would also need to allocate RM10,000 annually for inventory insurance and RM1 per unit for selling and administrative expenses. Additionally, a special machine would need to be hired for blade production, costing RM24,000 per year. The company would also need to employ a part-time technician for monthly maintenance of the machine, with each servicing costing RM1,800.

Required:

Prepare an analysis for the upcoming quarter to determine the best course of action for Elite Company. Should the company continue purchasing blades from the supplier, or to produce the blades internally? Provide detailed calculations and reason to support your decision. (10.5 points)

(Note: Show all calculations and round off your answer to two decimal points.)

3. **(17 points)**

Serene Sdn Bhd is a small but rapidly growing company specializing in the production of premium serving bowls, typically priced at RM115 per unit. It is estimated that 16,700 units will be produced, with 13,500 units expected to be sold for the year. The budgeted fixed manufacturing overhead for this production level is RM99,900. By the end of the year, the production reached 17,400 units, while sales totaled 14,800 units. Additionally, the product's price was increased by 10% during the year due to certain issues. The following data were extracted from the company's accounting records for the year:

Direct material H1	9,270 kilograms were purchased at a total cost of RM264,200. By the end of the year, 1,580 kilograms remained in stock.
Direct material B2	At the beginning of the year, there were 1,210 liters in stock. The company purchased an additional 8,250 liters, with 1,050 liters remaining in inventory at the end of the year.
Direct labour	A total of 46,950 hours were worked during the period, incurring a cost of RM306,850.
Variable manufacturing overhead	The total cost incurred was RM154,620.
Fixed manufacturing overhead	A total of RM104,880 was spent on fixed overhead.

The standard cost data per unit of the product is provided below:

Direct material H1	0.45 kilograms @ RM29.50 per kilogram
Direct material B2	0.5 liter @ RM5.10 per liter
Direct labour	2.6 hours @ RM6.50 per hour
Variable manufacturing overhead	2.6 hours @ RM3.40 per hour
Fixed manufacturing overhead	2.6 hours @ RM2.30 per hour

Required:

Calculate the following variances and indicate whether each variance is favourable (F) or adverse (A).

a. Direct material price variance for material H1 and direct material usage variances for material B2. (6 points)

b. Direct labour rate variance. (2.5 points)

c. Variable overhead spending variance. (2.5 points)

d. Fixed overhead expenditure and volume variances. (3.5 points)

e. Sales margin price variance. (2.5 points)

(Note: Show all calculations and round off your answer to two decimal points.)

END OF QUESTION PAPER

APPENDIX 1

VARIANCE ANALYSIS FORMULA

COST VARIANCE

a. DMPV = (AP – SP) x AQ

b. DMUV = (AQ – SQ) x SP

c. DLRV = (AR – SR) x AH

d. DLEV = (AH – SH) x SR

e. VOSV = (AVOR – SVOR) x AH

f. VOEV = (AH – SH) x SVOR

g. FOEV = AFO – BFO

h. FOVV = (APN – BPN) x SFOAR

SALES VARIANCE

a. SMPV = (ASP – SSP) x Units sold

b. SMVV = (ASU – BSU) x Standard profit per unit