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 07 printed pages

1. **(12 points)**

Roller Coaster Company produces dumbbells and currently operates at full capacity. The company managed to sell 21,000 units of its product at a price of RM105 per unit during the month of December. Data taken from the company's financial statement is as follows:

	RM	RM
Sales		2,205,000
Less: Cost of sales		(806,000)
Gross profit		1,399,000
Less: Operating expense		
Selling expense	730,000	
Administrative expense	300,000	(1,030,000)
Net operating income		369,000

The division of costs between fixed and variable is as follows:

	Fixed	Variable
Cost of sales	30%	70%
Selling expenses	20%	80%
Administrative expense	70%	30%

Required:

a. Calculate the total fixed cost and total variable cost for the month of December. (3 points)

b. Calculate the variable cost per unit and the contribution margin per unit. (3 points)

c. Compute the break-even point in units. (1.5 points)

d. The management is considering a plant expansion program that will permit an increase in their yearly sales. This expansion will cause an increase in total fixed costs by RM210,000.

   i. Calculate the new break-even point in the selling price, and the variable cost per unit remains unchanged. (2 points)

   ii. Calculate the required sales units if the company decides to maintain a profit of RM369,000. (2.5 points)

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

2. **(21 points)**

A. Miles Way Airline's profitability has been declining for several years. To enhance the organization's operational efficiency, there is consideration regarding the dropping of a number of flights that seem to be unprofitable. The following is an itemized income statement for Flight 133 (per flight):

	RM
Ticket revenue	14,000
(-) Variable expenses	(1,050)
Contribution margin	**12,950**
(-) Flight expenses:	
Salaries, flight crew	1,800
Salaries, flight assistants	1,500
Flight promotion	750
Depreciation on aircraft	1,550
Fuel for aircraft	5,800
Liability insurance	4,200
Baggage loading and flight preparation	1,700
Overnight costs for flight crew and assistants at the destination	300
Total flight expenses	17,600
Net Operating Loss	**(4,650)**

The following information is available about Flight 133:

i. Dropping Flight 133 would not allow Miles Way Airlines to reduce the number of aircraft in its fleet or the number of flight crew members employed.

ii. Members of the flight crew are paid annual salaries, whereas the flight assistants are paid by flight.

iii. Aircraft depreciation is entirely due to obsolescence. Depreciation due to wear and tear is negligible.

iv. 1/3 of the liability insurance is a special charge assessed against Flight 133 because in the opinion of the insurance company, the destination of the flight is in a "high-risk" area. The remaining 2/3 would be unaffected by the decision to drop Flight 133.

v. The baggage loading and flight preparation expense is an allocation of ground crews' salaries and the depreciation of ground equipment. Dropping Flight 133 would not affect the company's total baggage loading and flight preparation expenses.

Required:

Prepare an analysis showing what impact dropping Flight 133 would have on the airline's profit. Provide a decision and give a reason to your answer. (8 points)

B. Scarf Daisy Enterprise manufactures a line of scarves and brooches. Demand for the scarves is increasing, and management requests assistance from you in determining an economical sales and production mix for the coming year. The company has provided the following data:

Product	Demand next year (units)	Selling price (RM)	Direct materials (RM)	Direct labour (RM)	Variable overhead (RM)
Khadijah	50,000	13.50	4.30	3.20	0.80
Aisyah	42,000	5.50	1.10	2.00	0.50
Maryam	35,000	21.00	6.44	5.60	1.40
Sarah	40,000	10.00	2.00	4.00	1.00
Brooch	325,000	8.00	3.20	1.60	0.40

The following additional information is available:

i. The company's present employees are not enough to produce all five products. The factory has a capacity limited to 130,000 direct labour hours per year.

ii. The direct labour rate of RM8 per hour is expected to remain unchanged in the coming year.

iii. Fixed costs total RM520,000 per year.

Required:

Determine the best way to utilize the limited direct labour hours in maximizing the company's profit, by showing the ranking and allocation based on production ranking. (13 points)

(Notes: Show all the calculations and round off your answers to two decimal points)

3. **(17 points)**

Mr Clean Bhd produces and sells detergent named Bright. During the month of February, 600 bottles of detergent were produced and sold. The company's standard and actual costs per bottle for the product are given below:

	RM
Direct materials (1.8 liters at RM3 per liter)	5.40
Direct labour (2 hours at RM4.80 per hour)	9.60
Variable overhead (2 hours at RM1.60 per hour)	3.20

i. 1,200 liters of material were purchased for the production at a total cost of RM2,400, and only 900 liters were used in the production during the period.

ii. During the month, 1,380 hours were used, and the company paid RM6,900 for the direct labour cost.

iii. The variable overhead is charged based on direct labour hours. The actual variable overhead incurred was RM2,450.

iv. The budgeted selling price of the product is RM26.50 per bottle. However, after a certain discussion with the accounting personnel, the product was sold for RM29.90 per bottle.

Required:

From the information given above, compute the following variances. Indicate whether the variance is favorable (F) or adverse (A):

a. Direct material price and quantity variance. (5 points)
b. Direct labour rate and efficiency variance. (5 points)
c. Variable overhead spending and efficiency variance. (5 points)
d. Sales margin price variance. (2 points)

(Notes: Show all the calculations and round off your answer to two decimal points)

END OF QUESTION PAPER

APPENDIX 1

VARIANCE ANALYSIS FORMULA

COST VARIANCE

a. MPV = (AP – SP) x AQ
b. MUV = (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 Unit Sold
b. SMVV = (ASU – BSU) x Standard Profit per unit