



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER II
SESSION 2021/2022

COURSE NAME : PRODUCTION AND OPERATIONS
COSTING

COURSE CODE : BPC 32603

PROGRAMME CODE : BPB / BPP

EXAMINATION DATE : JULY 2022

DURATION : 3 HOURS

INSTRUCTION

1. ANSWER ALL QUESTIONS
2. THIS FINAL EXAMINATION IS CONDUCTED VIA **CLOSED BOOK**.
3. STUDENTS ARE **PROHIBITED** TO CONSULT THEIR OWN MATERIAL OR ANY EXTERNAL RESOURCES DURING THE EXAMINATION CONDUCTED VIA CLOSED BOOK

THIS QUESTION PAPER CONSISTS OF **FOUR (4)** PAGES

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- Q1 (a)** Milli' s Tea Company has budgeted sales of 300,000 cans of ice tea mix during June 2021 and 375,000 can during July . Production of the mix tea requires 14 grams of tea and 2 grams of sugar. The tea and sugar cost RM3.50 and RM1.80 per kilogram respectively. June 1 inventories of tea are as per **Table Q1(a)**:

Table Q1(a) : Cost Information

Item	Amount
Iced tea mix	12,300 cans of finished product
Tea	750 kg
Sugar	200 kg

The company generally carries an inventory of 5 percent of the following months needs for finished goods. Ending raw material are stocked in relation to finished goods ending inventory.

Prepare :

- (i) A production budget for June 2021 (5 marks)
- (ii) A purchase budget for June 2021 (16 marks)
- (b) Explain **TWO (2)** benefits of providing budgets to an organization. (4 marks)

- Q2 (a)** Roger Inc. makes three models of blenders: Model X, Model Y and Model Z. Information on the three products is given below as **Table Q2(a)** :

Table Q2(a): Cost Information for Three Models of Blenders

Item	Model X (RM)	Model Y (RM)	Model Z (RM)	Total (RM)
Sales	450,000	750,000	300,000	1,500,000
Variable Expenses	225,000	300,000	210,000	735,000
Contribution Margin	225,000	450,000	90,000	765,000
Fixed Expenses	200,000	337,000	135,000	672,000
Net Income	25,000	112,500	(45,000)	92,500

Additional information:

- Fixed expenses consists of RM400,000 of common costs allocated to the three products based on relative sales. The common cost will be incurred regardless of how many models are produced.
- The common cost of RM400,000 will be allocated to the remaining product line according to their relative sales if a model is discontinued.
- Additional fixed expenses are allocated to:

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- Model X - RM61,000
- Model Y - RM150,000
- Model Z -RM61,000
- The additional fixed expenses on the eliminated model will be absorbed in the proportion of 50:50 for the remaining model.

The production manager of the company, feels that Model Z line should be discontinued to increase the company's net income.

- (i) Evaluate the net income by product line and in total for Roger Inc. if the company discontinue Model Z product line. (13 marks)
 - (ii) Recommend to Roger Inc. whether to continue or eliminate the Model Z product line based on the results in Q2(a)(i). (5 marks)
- (b) Discuss **FOUR (4)** ways to manage constrained resources based on the theory of constraints. (8 marks)
- Q3** (a) Keemo Sdn Bhd manufactures plant based pets tofu for national distribution. The standard cost for the manufacture of the pets tofu is shown in **Table Q2(a)**.

Table Q2(a) : Cost Information

Cost Item	Standard Costs	Actual Costs
Direct Material	1,500 kg at RM35.00	1,600 kg at RM32.00
Direct Labour	4,800 hours at RM11.00	4,500 hours at RM11.80
Factory overhead	Rates per labour hour based on 100% of normal capacity of 5,500 labour hours :	
	Variable costs, RM2.40	RM12,300 variable cost
	Fixed cost, RM3.50	RM19,250 fixed cost

Compute the favourability or unfavourability of the variances for the pet tofu:

- (i) The total direct material cost variance. (6 marks)
- (ii) The total direct labour cost variance. (6 marks)
- (iii) The total factory overhead cost variance. (7 marks)



- (b) Discuss **THREE (3)** reasons for the occurrence of direct labour variances in a manufacturing company. (6 marks)

- Q4** (a) The Shoe2U Company operates a chain of shoe stores that sell 10 different styles of inexpensive women’s shoe with identical unit costs and selling prices. A unit is defined as a pair of shoes. Each store has a store manager who is paid a fixed salary. Individual sales person receive a fixed salary and a sales commission. Shoe2U is considering opening another store that is expected to have the revenue and cost relationships as shown in the tables below.

Table Q4(a)(i): Unit Variable Information Per Pair of Shoes

Item	RM
Selling price	90.00
Cost of shoes	55.50
Sales commission	4.50
Variable cost per unit	60.00

Table Q4(a)(ii): Annual Fixed Costs

Item	RM
Rent	45,000.00
Salaries	150,000.00
Advertising	60,000.00
Other fixed cost	15,000.00
Total fixed costs	270,000.00

Analyse:

- (i) The annual breakeven point in units sold and revenues. (4 marks)
- (ii) The new operating income if 7,000 units are sold. (6 marks)
- (iii) The new annual breakeven point in units sold and revenues if sales commissions are discontinued and fixed salaries are raised by a total of RM12,500. (8 marks)
- (b) Explain **THREE (3)** assumptions underlying the cost-volume-profit (CVP) analysis. (6 marks)

- END OF QUESTIONS -

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