



**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**FINAL EXAMINATION  
SEMESTER II  
SESSION 2016/2017**

COURSE NAME : PRODUCTION AND OPERATION  
COSTING  
COURSE CODE : BPC 32603  
PROGRAMME CODE : BPB  
EXAMINATION DATE : JUNE 2017  
DURATION : 2 HOURS 30 MINUTES  
INSTRUCTION : ANSWER ALL QUESTIONS

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THIS QUESTION PAPER CONSISTS OF **SIX (6)** PAGES

**Q1** MySpace Inc. produces two main products: Kenanga and Lily. **Table Q1** shows recent production data related to these products.

**Table Q1: Production Information**

<b>Product/Items</b>	<b>Kenanga</b>	<b>Lily</b>
Quantity produced	48,000	20,000
Selling price per unit (RM)	200	350
Number of direct labour hours/unit	1	4
Cost of direct labour (RM)/unit	19	21
Direct Material cost/unit (RM)	66	90
<b>Production Cost Driver volume</b>		
Machines set-up	200	480
Machining	43,000	36,500
Inspecting & Quality Control	220	700
Number of orders	2,400	1,800
<b>Overhead estimation costs for each activities:</b>	(RM)	
Machines set-up	149,600	
Machining	318,000	
Inspecting & QC	174,800	
Ordering costs	14,700	

- (a) Calculate the unit cost for each job using a traditional plant wide overhead rate based on direct labour hours. (6 marks)
- (b) Analyse the cost per unit for each job using Activity Based Costing (ABC). (10 marks)
- (c) Calculate the profitability for the each product line using traditional and ABC method. (6 marks)
- (d) Advice the company on the next course of action. (3 marks)

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**Q2** Table Q2 shows data taken from the records of QuQu Manufacturing Company for the fiscal year ended December 31, 2017.

**Table Q2: Cost information of QuQu Manufacturing Company**

Items	RM	Items	RM
Sales revenue	423,000	Administrative expenses	8,600
Plant manager’s salary	23,400	Factory utilities expenses	3,100
Factory property taxes	4,700	Indirect labour	9,100
Factory repairs	600	Selling expenses	1,000
Raw materials inventory, 1/1/17	31,700	Direct labour	112,500
Raw materials inventory, 31/12/17	29,200	Rent on manufacturing plant	9,900
Finished goods inventory, 1/1/17	69,800	Raw materials purchases	62,100
Finished goods inventory, 31/12/17	80,000	Depreciation- Plant vehicles	8,300
Work in process inventory, 1/1/17	8,100	Factory insurance	1,600
Work in process inventory, 31/12/17	7,500		

- (a) Prepare a cost of goods manufactured schedule for QuQu Manufacturing Company for the year ended December 31, 2017. (15 marks)
- (b) Prepare an income statement for QuQu Manufacturing Company for the year ended December 31, 2017. (10 marks)

**Q3** (a) Vintage Enterprise is a store specializing in vintage souvenirs. In 2017, the enterprise has produced and sold 3,000 units of product. **Table Q3(a)** shows selected financial analysis on the store’s main product.

**Table Q3(a): Financial analysis information**

	RM
Sales price per unit	60
Variable expense per unit	
Manufacturing:	
• Direct materials	18
• Direct labor	4.5
• Manufacturing overhead	11
Selling and administrative	3
Fixed expense per month:	
• Manufacturing overhead	20,000
• Selling	10,000
• Administrative	2,900

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Based on the given information:

- (i) Calculate the store’s break-even point in both units and sales ringgits. (4 marks)
  - (ii) Prepare a Cost–Volume–Profit (CVP) graph for the store from zero unit up to 2,400 units sold by indicating the revenue line, total costs line, profit/loss area and break-even point on the graph. (4 marks)
  - (iii) Calculate number of units that must be sold to earn a monthly profit of RM12,000 (ignoring taxes). (4 marks)
- (b) The marketing department of Iceland Corporation has submitted the following sales forecast for the upcoming fiscal year in 2017 as shown in **Table Q2(b)**.

**Table Q2(b): Forecasted sales**

Quarter	Unit sales
1	12,800
2	12,000
3	11,200
4	12,000

The selling price of the company’s product is RM18.00 per unit. Management expects to collect 75% of sales in the quarter in which the sales are made, 20% in the following quarter, and 5% of sales are expected to be uncollectible. The beginning balance of account receivable, all of which is expected to be collected in the first quarter, is RM20,000.

- (i) Prepare the company’s sales budget. (5 marks)
- (ii) Prepare the company’s schedule of expected cash collections. (8 marks)

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- Q4** (a) Z&Z Company produces large size bags for the use of tourists. Company uses standard costing system to control costs. The standards for materials and labour costs to manufacture 1 bag are shown in **Table Q4(a)**.

**Table Q4(a): Standard cost for Materials and Labour**

<b>Direct material per unit and price</b>	kg/unit	Price (RM) per kg
Standard unit	10.8	7.5
Actual unit	11.6	7.2
<b>Direct labor per unit and cost</b>	Labor hour/unit	Cost per hour (RM)
Standard unit	0.6	30
Actual unit	0.36	36
<b>Additional information</b>	Total	
Total units produced	3,750	units
Total materials purchased	43,500	kg
Total direct labor hours used	1,350	direct labor hours

Calculate:

- (i) Direct materials price (5 marks)
- (ii) Quantity variance (5 marks)
- (iii) Direct labour rate (5 marks)
- (iv) Efficiency variance (5 marks)
- (b) Discuss the purpose of variance analysis. (5 marks)

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- END OF QUESTIONS -

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**APPENDIX 1**

**Formula:**

(Actual quantity purchased x actual price)- (Actual quantity purchased x Standard price)

(Actual direct labors hours worked x actual rate)- (Actual direct labors hours worked x Standard rate)

(Actual direct labors hours worked x Standard rate)- (Standard direct labors hours allowed x Standard rate)

(Actual quantity of materials used x standard price)- (Actual quantity of materials allowed x Standard price)

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