



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2014/2015**

COURSE NAME : PRODUCTION AND OPERATION
COSTING
COURSE CODE : BPC 32603
PROGRAMME : 3 BPB
EXAMINATION DATE : JUNE 2015/JULY 2015
DURATION : 2 HOURS 30 MINUTES
INSTRUCTION : ANSWER ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF FIVE (5) PAGES

- Q1** Cherry Luggage Enterprise makes backpacks for large sporting goods chains that are sold under the customers’ store brand names. The accounting department has identified the overhead costs and cost drivers related to firm’s recently completed jobs; Job 100 and Job 300 as shown in **Table Q1**.

Table Q1: Production Information

Product/Items	Job 100	Job 300
Number of units completed	1,125	900
Number of direct labour hours	270	330
Cost of direct material (RM)	13,500	15,000
Cost of direct labour (RM)	18,000	71,250
Number of setups	18	22
Number of orders	24	45
Number of machine hours	540	450
Number of kilowatt hours	270	360
Estimated total cost driver volume	Total estimated quantity	
Number of setups	7,200	
Number of orders	60,000	
Number of machine hours	96,000	
Number of kilowatt hours	600,000	
Cost pool by activities	Total estimated overhead cost (RM)	
Setup costs	900,000	
Ordering costs	240,000	
Machine maintenance costs	1,200,000	
Power costs	120,000	
Total estimated direct labour hours	60,000 hours	

- (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) Compare product costs of each job under the ABC and the traditional costing method in terms of firm’s pricing and profitability. (4 marks)
- (d) Explain **TWO (2)** differences between ABC costing method and traditional costing. (5 marks)

Q2 Table Q2 shows data taken from the records of Moxxa Manufacturing Company for the fiscal year ended December 31, 2015.

Table Q2: Cost information of Moxxa Manufacturing Company

Items	RM	Items	RM
Sales revenue	470,000	Administrative expenses	9,500
Plant manager's salary	26,000	Factory utilities expenses	3,500
Factory property taxes	5,300	Freight-in of raw materials purchased	3,600
Factory repairs	650	Selling expenses	1,100
Raw materials inventory, 1/1/15	35,300	Direct labour	125,000
Raw materials inventory, 31/12/15	32,500	Indirect labour	10,200
Finished goods inventory, 1/1/15	77,500	Raw materials purchases	69,000
Finished goods inventory, 31/12/15	89,000	Depreciation- Plant vehicles	9,200
Work in process inventory, 1/1/15	9,000	Factory insurance	1,800
Work in process inventory, 31/12/15	8,300	Rent on manufacturing plant	11,000

(a) Prepare a cost of goods manufactured schedule for Moxxa Manufacturing Company for the year ended December 31, 2015.

(15 marks)

(b) Prepare an income statement for Moxxa Manufacturing Company for the year ended December 31, 2015.

(10 marks)

Q3 (a) Zafry has recently opened Sheer Elegance Enterprise, a store specializing in fashionable stockings. Table Q3(a) shows selected financial analysis on the store's main product.

Table Q3(a): Financial analysis information

	RM
Sales price per unit	2.00
Variable expense per unit	0.80
Fixed expense per year:	
• Building rental	12,000
• Equipment depreciation	3,000
• Selling	30,000
• Administrative	15,000

Based on the given information:

(i) Calculate the store's break-even point in both units and sales ringgit.

(6 marks)

- (ii) Prepare a Cost–Volume–Profit (CVP) graph for the store from zero unit up to 70,000 units sold each year. Indicate the break-even point on the graph. (5 marks)
 - (iii) Calculate number of units must be sold to earn RM9,000 target profit for the first year. (4 marks)
- (b) Hasmy Company manufactures a variety of ballpoints pens. The company has just received an offer from an outside supplier to provide the ink cartridge for the company’s Zippo pen line, at a price of RM0.48 per dozen cartridges. The company is interested in this offer, since its own production of cartridges is at capacity. Hasmy Company estimates that if the supplier’s offer were accepted, the direct labour and variable manufacturing overhead costs of the Zippo pen line would be reduced by 10% and the direct materials cost would be reduced by 20%.

Under current operations, Hasmy Company manufactures all of its own pens from start to finish. The Zippo pens are sold through wholesalers at RM4 per box. Each box contains one dozen pens. Fixed manufacturing overhead costs charged to the Zippo pen line total RM50,000 each year (the same equipment and facilities are used to produce several pen lines). The present cost of producing one dozen Zippo pens (one box) is given in the following **Table Q3(b)**.

Table Q3(b): Financial information of one dozen Zippo pen

	RM
Direct Material	RM1.50
Direct Labour	1.00
Manufacturing Overhead	0.80*

*includes both variable and fixed manufacturing overhead based on 100 000 boxes of pen.

- (i) Decide whether Hasmy Company should accept the outside supplier’s offer. (6 marks)
- (ii) Determine the maximum price that Hasmy Company should be willing to pay the outside supplier per dozen of cartridges. (4 marks)

- Q4** (a) Shelby Company manufactures three products: product X, product Y, and product Z. **Table Q4** shows data concerning the three products.

Table Q4: Information for Product X, Y, and Z

Product	Demand next year (Units)	Selling price per unit (RM)	Direct materials (RM)	Direct labor (RM)
X	13,000	16	1.7	3
Y	21,000	12	1.1	1.2
Z	20,000	13	2.2	4.2

The following additional information is available:

- The company's plant has a capacity of 20,000 direct labor-hours per year on a single-shift basis. The company's present employees and equipment can produce all three products.
- The direct labor rate of RM6.00 per hour is expected to remain unchanged during the coming year.
- Variable overhead costs are RM2.50 per direct labor-hour.

Based on the above information;

- Compute contribution margin and contribution margin ratio for each product. (6 marks)
 - Compute contribution margin per direct labor-hour spent on each product. (6 marks)
 - Prepare a schedule showing the total direct labor-hours that will be required to produce the units estimated to be sold during the coming year. (4 marks)
 - Allocate the 20,000 direct labour-hours of capacity to Shelby Company's three products. (4 marks)
- (b) State **FIVE (5)** benefits of standard costing. (5 marks)

- END OF QUESTIONS -