



**UTHM**

Universiti Tun Hussein Onn Malaysia

**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**FINAL EXAMINATION  
SEMESTER II  
SESSION 2015/2016**

**COURSE NAME : INDUSTRIAL PRODUCTION COSTING**  
**COURSE CODE : BWB 44203**  
**PROGRAMME CODE : BWQ**  
**EXAMINATION DATE : JUNE/ JULY 2016**  
**DURATION : 3 HOURS**  
**INSTRUCTION : PART A : ANSWER ALL QUESTIONS**  
**PART B : ANSWER TWO (2)**  
**QUESTIONS**  
**PART C : ANSWER ONLY ONE (1)**  
**QUESTION**

**THIS QUESTION PAPER CONSISTS OF EIGHT (8) PAGES**

**PART A**

**Answer ALL questions**

- Q1.** Elaborate the importance of cost-volume-profit analysis to the management of a company. (4 Marks)
- Q2.** Explain why a flexible budget is better than a static budget as performance measurement tool. (4 Marks)
- Q3.** Differentiate between Job Order Costing and Process Costing. (4 Marks)
- Q4.** What are advantages of standard cost?. (4 Marks)
- Q5.** Why Practical Standard is preferable by management compare to Ideal Standards to determine the standard cost? (4 Marks)

**PART B**

**Answer TWO (2) questions only.**

**Q1** BMC Sdn. Bhd. manufactures a single product. The company uses the weighted average method in its process costing system. Activity for June has just been completed.

The information in **Table Q1 (a)** pertains to the processing department for the month of June.

**Table Q1 (a) : Processing department for the month of June**

	Quantity Schedule
Units to be accounted for:	
Work in process, June 1 (100% complete materials, 75% complete labour and overhead)	8,000
Started during June	45,000
Work in process, 30 June (100% materials, 40% complete labor and overhead)	5,000

The costs for work in process at 1<sup>st</sup> June and the costs added by the processing department during the month of June were as in **Table Q1 (b)**.

**Table Q1 (b) : Cost for 1<sup>st</sup> June and during June**

	Cost for 1 <sup>st</sup> June (RM)	Cost added during June (RM)
Materials	5,150	29,300
Direct labour	660	9,840
Manufacturing overhead	1,320	19,680
<b>Total</b>	<b>7,130</b>	<b>58,820</b>

(a) Prepare a physical flow (quantity) schedule for the mixing department for June.

(5 Marks)

(b) Using the weighted average method, determine the equivalent units of production for materials and conversion costs for the mixing department for June.

(4 Marks)

(c) Using the weighted average method, determine the cost per equivalent unit of production for materials and conversion costs for the mixing department for June.

(6 Marks)

(d) Using the weighted average method, determine the cost of goods transferred out and the cost of ending work in process for the mixing department.

(5 Marks)

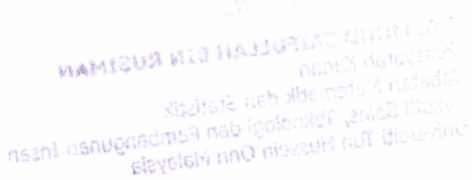
**Q2** Table Q2 (a) and Table Q2 (b) represent the information of standard cost and additional information on the company operation for making D’Cake by Deli Café.

**Table Q2 (a) : Standard cost rate per unit**

Item	RM
Direct Material: 2 kg x RM28 per kg	56.00
Direct labour: 26 hours x RM20 per hour	520.00

**Table Q2 (b) : Additional information**

Item	RM/ units
Materials purchased	23,000 kg for RM630,200
Materials used	14,000 kg
Units produced	6,700 units
Direct labour	168,000 hours (direct labor cost of RM 1,680,000)



Based on **Table Q2 (a)** and **Table Q2 (b)**, answer the following questions:

- (a) Explain:
  - (i) the meaning of the standard cost; and (2 marks)
  - (ii) the relationship between standard cost and variance analysis. (2 marks)
  
- (b) Calculate the following variances. Determine whether each variance is Favourable (F) or Unfavourable (U):
  - (i) direct material price variance. (3 marks)
  - (ii) direct material quantity variance. (3 marks)
  - (iii) direct labour rate variance. (3 marks)
  - (iv) direct labour efficiency variance. (3 marks)
  
- (c) Based on your answer in (b) (iv) above, discuss the possible reasons for a company to have an unfavourable direct labour efficiency variance. (4 Marks)

**Q3** ADTECH Company manufactures office chairs. Budgeted sales for the first four months of the year are as in **Table Q3**.

**Table Q3** : Budgeted sales for the first four months for ADTECH Company

Item	Budgeted Sales (Units)
January	320
February	280
March	340
April	240

Each office chair requires 15 square feet of oak, at a cost of RM20 per square foot. The company wants to maintain an inventory of office chairs equal to 20 percent of the following month's sales. At the beginning of the year, 40 office chairs are on hand. Assume the company maintains an inventory of oak equal to 10 percent of the next month's needs. At the beginning of the year, 500 square feet of oak are on hand. Inventory of oak at March 31 is estimated to be 400 square feet.

- (a) Prepare a production budget in units, for January, February and March. (5 marks)
  
- (b) Prepare a direct materials purchases budget in ringgit (RM), for January, February and March. (9 marks)
  
- (c) Discuss how budgets can be used as communication and resource allocation tools in an organisation. (6 marks)

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**PART C**

**Answer ONE (1) question only.**

**Q1** Astana Sdn. Bhd. prepared the following income statement in **Table Q1** using a contribution margin (CM) approach.

**Table Q1 :** Income statement for Astana Sdn Bhd using a contribution margin approach

Item	Total	Per Unit	Percent Of Sales
Sales	1,200,000	60	100%
Less variable expenses	<u>900,000</u>	<u>45</u>	?
Contribution margin	300,000	15	?
Less fixed costs:	<u>240,000</u>		
Net income	60,000		

Management is anxious to improve the company's profit performance and has asked for several items of information.

- (a) Compute the company's CM ratio and variable expense ratio. (4 Marks)
- (b) Compute the company's break even point in both unit and sales in RM. Use the equation method. (4 Marks)
- (c) Assume that sales increase by RM 400,000 next year. If cost behavior pattern remain unchanged, by how much will the company's net income increase? Use the CM ratio to determine your answer. (4 Marks)
- (d) Refer to the original data. Assume that the management wants the company to earn a minimum profit of RM 90,000. How many units will have to be sold to meet this target profit? (4 Marks)
- (e) Refer to the original data. Compute the company's margin of safety in both RM and percentage form? (4 Marks)

**Q2** BSE Sdn. Bhd. manufactures 50,000 units of components per year. The manufacturing cost per unit of the components is as in **Table Q2**.

**Table Q2 : Manufacturing cost per unit for BSE Sdn Bhd**

Item	RM
Direct materials	15.00
Direct labour	20.00
Variable overhead	12.00
Fixed overhead	<u>18.00</u>
Total unit cost	<u>70.00</u>

Assume that the fixed overhead reflects the cost of BSE's manufacturing facility. This facility cannot be used for any other purpose. An outside supplier has offered to sell the component to BSE for RM 54.00 per unit.

- (a) What is the effect on income if BSE purchases the component from the outside supplier? (8 Marks)
  
- (b) Assume that BSE can avoid RM 150,000 of the total fixed overhead costs if it purchases the components. What is the effect on income if BSE purchases the component from outside supplier? (8 Marks)
  
- (c) What are the qualitative factors that need to be considered when making the decision on whether to accept or reject the supplier's offer? (4 Marks)

**- END OF QUESTION -**