

KOLEJ UNIVERSITI TUNKU ABDUL RAHMAN

CENTRE FOR PRE-UNIVERSITY STUDIES

ACADEMIC YEAR 2020/2021

AUGUST EXAMINATION

**FPAC1054 Principles of Costing**

TUESDAY, 1 SEPTEMBER 2020

TIME: 9.00 AM – 11.00 AM (2 HOURS)

FOUNDATION IN ACCOUNTING

**Instructions to candidates:**

1. Answer ALL questions in the format/ template requested or provided.
2. Include your FULL NAME, STUDENT ID, PROGRAMME OF STUDY and SEMESTER in your answer submission.
3. This is an open book final online assessment; but you MUST NOT receive any help whatsoever from any other person.
4. Read all the questions carefully and understand what you are being asked to answer.
5. Marks are awarded for your own (original) analysis. Therefore, use the time and information to build well-constructed, concise, accurate and thoughtful answers with supporting explanations and justifications.
6. You must submit your answer within the time frame allowed for this online assessment. The deadline for the submission of your answers is **half an hour** from the end time of this online assessment.
7. Penalty as below **WILL BE IMPOSED** on students who submit their answers late as follows:
  - i) The final marks of this online assessment will be reduced by 10 marks for answer scripts that are submitted within 30 minutes after the deadline for the submission of answers for this online assessment.
  - ii) The final marks of this online assessment will be downgraded to zero (0) mark for any answer scripts that are submitted after one hour from the end time of this online assessment.
8. Any late submission after the stipulated time frame or no submission, are deemed to be failure of the online assessment. [Note: For candidates facing problems to submit the online assessment, please email to [cpus@tarc.edu.my](mailto:cpus@tarc.edu.my) **within 48 hours** of the online assessment to apply for "I" indicator under Extenuating Mitigating Circumstances (EMC) situation. Attach your email with supporting documents and EMC form which can be obtained from your student intranet.]

9. Students are required to complete the declaration section before submission of your answer.

**STUDENT'S DECLARATION OF ORIGINALITY**

By submitting this online assessment, I declare that this submitted work is free from all forms of plagiarism and for all intents and purposes is my own properly derived work. I understand that I have to bear the consequences if I fail to do so.

**FPAC1054 PRINCIPLES OF COSTING****Question 1**

A shop sells 1000 pieces of shirts each year, paying RM6.40 every time it orders. The inventory cost per piece held average RM2 per piece per year. The reorder period is 4 to 8 weeks and 16 to 20 pieces are sold each week. The supplier has recently indicated that he is willing to reduce the purchase price from RM5 to RM4 if the total 1000 pieces are purchased in two equal orders.

**REQUIRED**

- a) What is the ideal purchase quantity? (2 marks)
- b) Explain your answer in (a) above. (3 marks)
- c) How many orders will be placed a year using the ideal purchase quantity? (2 marks)
- d) Explain your answer in (c) above. (2 marks)
- e) What is the total inventory cost for the ideal purchase quantity? (2 marks)
- f) What is the reorder level? (2 marks)
- g) What is the maximum inventory level? (2 marks)
- h) What is the average inventory level? (2 marks)
- i) What is the amount of safety inventory? (2 marks)
- j) Is the quantity discount offered by the supplier favourable? Show your calculations. (6 marks)

[Total: 25 marks]

**FPAC1054 PRINCIPLES OF COSTING****Question 2**

Super Sdn. Bhd. has two production departments, Machining and Assembly, and one service department, Maintenance. It has budgeted its production overheads for the forthcoming year as follows:

|                          |        |
|--------------------------|--------|
|                          | RM     |
| Rent                     | 15 000 |
| Machinery depreciation   | 11 000 |
| Power                    | 9 600  |
| Supervision of employees | 8 000  |
| Indirect materials       | 1 000  |
| Indirect wages           | 40 560 |

The following information is also available:

|                            | Machining | Assembly | Maintenance |
|----------------------------|-----------|----------|-------------|
| Number of employees        | 17        | 15       | 8           |
| Floor area (square metres) | 8 000     | 6 000    | 2 000       |
| Power (kilowatt hours)     | 80 000    | 60 000   | 20 000      |
| Direct machine hours       | 13 440    | 2 160    | -           |
| Direct labour hours        | 14 400    | 62 400   | -           |
|                            | RM        | RM       | RM          |
| Indirect materials         | 410       | 380      | 210         |
| Indirect wages             | 15 360    | 13 800   | 11 400      |
| Value of machinery         | 54 000    | 46 000   | -           |

The Machining department overhead absorption rate is applied on machine hour basis.  
The Assembly department overhead absorption rate is applied on direct labour hour basis.

**REQUIRED**

- a) Apportion the budgeted overheads to the three departments and re-apportion the maintenance department costs to the two production departments on the basis of the value of machinery. (21 marks)
- b) Calculate, to two decimal places, the overhead absorption rates for each of the production departments. (4 marks)

[Total: 25 marks]

**FPAC1054 PRINCIPLES OF COSTING****Question 3**

A store has RM200 000 of annual fixed costs and a contribution sales ratio of 0.4. The variable cost per unit is RM30.

**REQUIRED**

- a) What is the selling price per unit? (2 marks)
- b) What is the sales volume and revenue needed to cover all costs? (4 marks)
- c) Explain your answer in (b). (4 marks)
- d) What is the sales volume and revenue required to achieve a RM300 000 desired profit? (4 marks)
- e) What is the margin of safety in units and in percentage if budgeted sales are 20 000 units? (4 marks)
- f) Explain your answer in (e). (5 marks)
- g) The advertising manager plans to spend RM200 000 in the coming year on advertising. What is the level of revenue required to still achieve RM300 000 profit? (2 marks)

[Total: 25 marks]

**FPAC1054 PRINCIPLES OF COSTING****Question 4**

Matrix Sdn. Bhd. expects the demand for its product Topy as follows:

| Year 2020   | June | July | August | September | October | November |
|-------------|------|------|--------|-----------|---------|----------|
| Sales units | 900  | 1000 | 1200   | 1100      | 1200    | 1150     |

The current selling price is RM10 per unit. It plans to increase the selling price by 10% beginning August 2020.

The finished goods inventory held at 1 July 2020 is 100 units. It plans a 5% increase in finished goods at the end of every month.

Each unit of Topy requires 2 kg of raw materials which is expected to cost RM5 per kg until August 2020. The cost will increase by RM1 per kg beginning September 2020.

For July 2020 the opening inventory of materials is 1000 kg and the closing inventory is expected to increase by 5%. It is then expected to increase by 10% for August 2020 and a further 20% for September 2020. After that it will remain unchanged.

The bank balance on 30 June 2020 was RM100 000. Customers are allowed one month credit and all its suppliers are paid at the end of every month. Current monthly operating expenses of RM30 000 are paid at the beginning of the following month and are expected to increase by 9% each month beginning July 2020.

**REQUIRED**

- Prepare a production budget for each of the three months ending 30 September 2020. (4 marks)
- Prepare a materials purchase budget (including quantity and cost) for each of the three months ending 30 September 2020. (8 marks)
- Prepare a cash budget for each of the three months ending 30 September 2020. (13 marks)

[Total: 25 marks]