

FINAL
Examination Paper

(COVER PAGE)

Session : APRIL 2019

Programme : Diploma in Business (DIB)

Course : **MGT2100: Operations Management**

Date of Examination : 25 July 2019, (Thursday)

Time : 5:00pm – 7:00pm Reading Time : Nil

Duration : 2 Hours

Special Instructions :

Answer any **FOUR (4)** questions.

Materials permitted : Non-programmable Calculator

Materials provided : Nil

Examiner(s) : **Vasudevan Arumugam**, Kathleen Bagah, Dr Mohd Asrof, and
Kumaran

Moderator : Dr Rajendran Muthuveloo

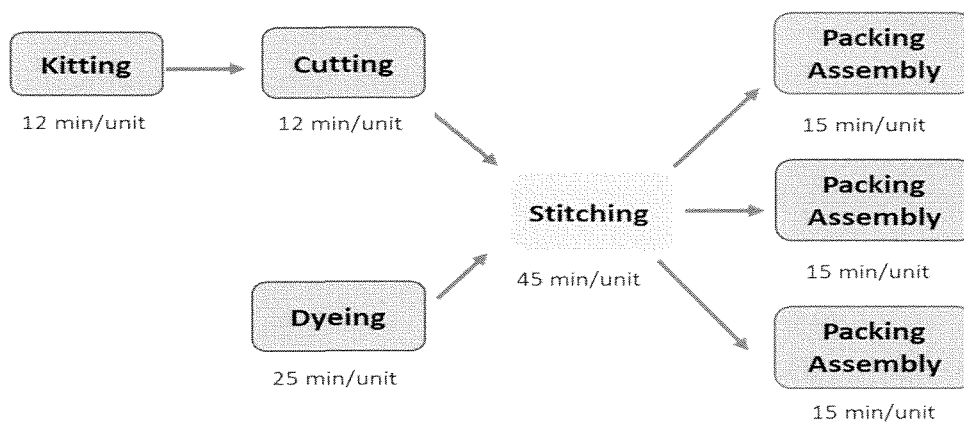
This paper consists of 4 printed pages, including the cover page

DIPLOMA IN BUSINESS PROGRAMME (DIB)
MGT2100: OPERATIONS MANAGEMENT
FINAL EXAMINATION: APRIL 2019 SESSION

Instructions: This paper consists of **SIX (6)** questions. Answer any **FOUR (4)** questions in the answer booklet provided. All questions carry equal marks.

Question 1

Pagoda Clothing company has the process displayed below. The kitting and cutting process occurs separately from and simultaneously with the dyeing and stitching operations. The product needs to go through any one of the assembly processes.



Based on the scenario above, answer the following questions:

- a) Identify which operation is the bottleneck. (3 marks)
- b) Determine the system's process time. (3 marks)
- c) Calculate the overall process cycle time for the system. (3 marks)
- d) Calculate the monthly capacity for Garuda based on the work system of 8 per day, 22 working day per month. (4 marks)
- e) Identify and explain **FOUR (4)** actions needs to be taken by Garuda to remove the bottleneck of this production process. (12 marks)

Question 2

- a) Elaborate **THREE (3)** major assumptions of the basic EOQ model. (6 marks)
- b) Describe **THREE (3)** differences between a fixed quantity and a fixed period inventory system. (9 marks)
- c) Describe **FOUR (4)** types of inventories. Provide examples to support your answers. (10 marks)

Question 3

- a) Fung Keong Manufacturing is considering whether to produce a new line of footwear. Calculate the break-even quantity based on the details below; (5 marks)

Selling price = RM25
Variable cost = RM9
Fixed cost = RM52,000

- b) There are **FOUR (4)** types of cost of quality. Identify and explain each along with relevant example. (20 marks)

Question 4

A shipment of a key component for a printed circuit board needs to go from New York to Penang for final assembly. The value of the component is US\$ 1,750.00 and holding cost is 40% per year. One airfreight company is able to ship the cargo faster by 1 day than its competitors. This however will cost the company additional US\$ 20.00.

Required:

- a) Determine the daily holding cost for this component. (5 marks)
- b) Decide which carrier would you choose to deliver this cargo from New York to Penang. Explain your decision. (10 marks)

c) Elaborate **FOUR (4)** roles of supply chain management in operations management.

(10 marks)

Question 5

a) Describe **THREE (3)** strategic importance of the layout decision. Provide an example to support your answers.

(15 marks)

b) Elaborate **FIVE (5)** advantages of work cells production system.

(10 marks)

Question 6

a) Describe **FOUR (4)** key roles of purchasing in supply chain.

(16 marks)

b) Elaborate **THREE (3)** factors that will complicate the Fixed-Position layout.

(9 marks)

-THE END-

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