

BERJAYA BUSINESS SCHOOL

FINAL EXAMINATION

Student ID (in Figures) :

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Student ID (in Words) :

Subject Code & Name : **MGT 5104 OPERATIONS MANAGEMENT & DECISION SCIENCE**

Semester & Year : SEPTEMBER - DECEMBER 2017

Lecturer/Examiner : LEE YEE WAN

Duration : 3 Hours

INSTRUCTIONS TO CANDIDATES

- This question paper consists of 3 parts:
 - PART A (20 marks) : Answer Two (2) structured answer questions. Answers are to be written in the Answer Booklet provided.**
 - PART B (50 marks) : Answer Two (2) essay answer questions. Answers are to be written in the Answer Booklet provided.**
 - PART C (30 marks) : Answer Three (3) problem solving answer questions. Answers are to be written in the Answer Booklet provided.**
- Candidates are not allowed to bring any unauthorized materials except writing equipment into the Examination Hall. Electronic dictionaries are strictly prohibited.
- This question paper must be submitted along with all used and/or unused rough papers and/or graph paper (if any). Candidates are NOT allowed to take any examination materials out of the examination hall.
- Only ballpoint pens are allowed to be used in answering the questions, with the exception of multiple choice questions, where 2B pencils are to be used.

WARNING: The University Examination Board (UEB) of BERJAYA University College of Hospitality regards cheating as a most serious offence and will not hesitate to mete out the appropriate punitive actions according to the severity of the offence committed, and in accordance with the clauses stipulated in the Students' Handbook, up to and including expulsion from BERJAYA University College of Hospitality.

PART A : Structured Answer Question (20 MARKS)

INSTRUCTION(S) : Answer **TWO (2)** questions. Write your answers in the Answer Booklet(s) provided.

1. Answer the **Two (2)** questions below:-

- a. List the pressures that lean systems pose for supply chains, whether in the form of process failure due to inventory shortages or labor shortages, and so forth. (5 marks)
- b. Assess how these pressures may apply to a firm that is actually implementing lean philosophy in their operations. (5 marks)

Total 10 marks

2. Answer the **Two (2)** questions below:-

- a. Discuss operations strategy and competitive priorities. (5 marks)
- b. Outline Five (5) disadvantages of globalization to operation management. (5 marks)

Total 10 marks

End of Part A

PART B : ESSAY ANSWER QUESTIONS (50 MARKS)

INSTRUCTION(S) : Answer **TWO (2)** questions. Write your answers in the Answer Booklet(s) provided.

1. Assess the relationship between inventory and the nine competitive priorities “using operations to compete”. Suppose that two competing manufacturers, e.g. Company H and Company L, are similar except that Company H has much higher investments in raw materials, work-in-progress, and finished goods inventory than company L. Justify in which of the nine competitive priorities will Company H have an advantage. (25 marks)

2. Outline the philosophy of Total Quality Management (TQM). Develop a diagram of TQM Wheel and evaluate the three (3) main principles of TQM i.e. Customer Satisfaction, Employee Involvement and Continuous Improvement in sustaining products and processes quality standard. (25 marks)

End of Part B

PART C : PROBLEM SOLVING QUESTIONS (30 MARKS)

INSTRUCTION(S) : Answer **THREE (3)** questions. Write your answers in the Answer Booklet(s) provided.

1. A manufacturer of ballet shoes has determined that its production facility has a design capacity of 300 shoes per week. The effective capacity, however, is 230 shoes per week. Evaluate what is the manufacturer's capacity utilization relative to both design and effective capacity if output is 200 shoes per week? Justify your answer. (10 marks)

2. An airline company must plan its fleet capacity and its long-term schedule of aircraft usage. For one flight segment, the average number of customers per day is 70, which represents a 65 percent utilization rate of the equipment assigned to the flight segment. If demand is expected to increase to 84 customers for this flight segment in three years, construct in calculation what capacity requirement that should be planned. Assume that management deems that a capacity cushion of 25 percent is appropriate. (10 marks)

3. A gardener wants to develop a forecast for next year's quarterly sales of cactus trees. He has collected quarterly sales for the past two years and expects total sales for next year to be 500 cactus trees. The data clearly exhibit seasonality. Evaluate how much can he expect to sell during each quarter of next year accounting for seasonality. (10 marks)

<u>Cactus Trees Sold</u>		
<u>Season</u>	<u>Year 1</u>	<u>Year 2</u>
Fall	100	110
Winter	82	95
Spring	180	173
<u>Summer</u>	<u>110</u>	<u>110</u>
<u>Total</u>	<u>472</u>	<u>488</u>

End of Part C