



PENINSULA
COLLEGE
GEORGETOWN DK266-03(P)



**UNIVERSITY OF
PLYMOUTH**

FINAL EXAMINATION

Programme Name	:	BA (HONOURS) BUSINESS 3+0 IN COLLABORATION WITH UNIVERSITY OF PLYMOUTH
Course Code & Name	:	MAL2002 INTRODUCTION TO OPERATIONS MANAGEMENT
Duration	:	3 HOURS

INSTRUCTIONS TO CANDIDATES:

1. Please read the instructions given in the question paper **CAREFULLY**.
2. The question paper consists of **FOUR (4)** questions.
3. Answer **ALL** questions in the question paper.
4. Answers to the questions are to be written into the examination booklet.
5. Electronic dictionaries, lecture notes, files or any unauthorised materials except writing equipment are strictly prohibited.

This question paper must be submitted along with all used and/or unused rough papers and/ or graph papers (if any). Candidates are **NOT ALLOWED** to take any examination paper(s) used or unused out of the examination hall.

WARNING:

The Examination Board of Peninsula College Georgetown regards cheating as a very serious offence and will not hesitate to mete out the appropriate punitive actions according to the severity of the offence committed, and in the accordance with the clauses stipulated in the Students' Handbook, up to and including expulsion from Peninsula College Georgetown.

(This booklet contains 3 printed pages including this page)

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE ALLOWED TO DO SO

Answer **ALL** questions on the separate sheet provided.

[100 marks]

1. a) Read and answer the following questions:
 - i) Define operations management. (2 marks)
 - ii) List out any **THREE (3)** functions of operations management. (3 marks)
 - iii) Distinguish between goods and services. (10 marks)

- b) Briefly explain the requirement from an operations perspective in terms of **quality, cost, flexibility, speed, and dependability** to guide an organisation's operations strategy. (10 marks)

Total: [25 marks]

2. a) What is meant by facility layout? (2 marks)

- b) Identify any **THREE (3)** needs of layout decision. (6 marks)

- c) Discuss **THREE (3)** basic layout patterns used in layout techniques. (9 marks)

- d) Outline **FOUR (4)** factors to be considered in making location decision. (8 marks)

Total: [25 marks]

- 3 a) Define Six Sigma Qualities. (2 marks)

- b) Briefly explain the following questions
 - i) Functions of POKA-YOKE (3 marks)
 - ii) Pull System (Kanban) (3 marks)

- c) Briefly explain the **FOUR (4)** stages in product life cycle (8 marks)

- d) Discuss any **THREE (3)** concepts of Total Quality Management (TQM) operations management. (9 marks)

Total: [25 marks]

4. Maintenance is necessary when there is an interruption in production due to machine or equipment malfunctions. Poor maintenance can be disruptive, wasteful, inconvenient and expensive.

a) Briefly explain **FIVE (5)** important of maintenance in operations due to machine or equipment malfunctions. (10 marks)

b) Ilham Hakimi, the General Manager of Woven Plastic Berhad, has developed the tasks, durations and predecessor relationships in the following table for building a new plant.

Activity	Preceding Activity	Time (Weeks)
A	-	15
B	-	9
C	A	12
D	B	10
E	B	29
F	A	12
G	C	37
H	D	48
I	A	12
J	G, H, E	6
K	F, J, I	6

i) Illustrate the appropriate **PERT** network. (6 marks)

ii) Determine the earliest event time and latest event time for the project. (6 marks)

iii) Determine the completion time of the project. (2 marks)

iv) Detect the critical activities. (1 marks)
Total: [25 marks]

- END OF QUESTIONS -