



**TECHNICAL UNIVERSITY OF MOMBASA**  
***Faculty of Business and Social Studies***

DEPARTMENT OF BUSINESS STUDIES

UNIVERSITY EXAMINATIONS FOR DEGREE IN  
BACHELOR OF COMMERCE  
(PROCUREMENT & LOGISTICS OPTIONS)

**BPC 4305: OPERATIONS MANAGEMENT**

END OF SEMESTER EXAMINATIONS

**SERIES: APRIL 2015**

**TIME: 2 HOURS**

**INSTRUCTIONS:**

- Answer Question **ONE (Compulsory)** and any other **TWO** questions.
- Do not write on the question paper

*This paper consists of Three printed pages*

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**QUESTION 1 (Compulsory)**

A project has 11 activities with the activities preceding constraints and time estimates as shown below:

<b>Activity</b>	<b>Preceding Activity</b>	<b>Duration (Days)</b>
A	-	10
B	A	8
C	A	5
D	B	6
E	D	8
F	C	7
G	E,F	4

H	F	2
I	F	3
J	H, I	3
K	J, G	2

### Required

- a) Using the critical path method, determine the projects duration. **(14 marks)**
- b) With clearly articulated examples, explain the historical development of operations management. **(16 marks)**

### QUESTION 2

- a) A transformation process is the user of resources to transform inputs into some desired outputs. Clearly explain the different types of operations. **(10 marks)**
- b) Operations consultancy is usually aimed at solving functional problems or improving the performance of an organization. With well explained examples, explain the characteristics of operations management consultancy. **(10 marks)**

### QUESTION 3

- a) Explain the use of the following terms when defining an operations strategy:
- i) The notion of trade offs. **(5 marks)**
  - ii) Straddling **(5 marks)**
- b) Capacity planning is the matching of capacity to demand to provide timing and quantity of output to satisfy customer requirements. Discuss the following capacity planning concepts:
- i) Best operating level **(4 marks)**
  - ii) Manufacturing improvement curve **(3 marks)**
  - iii) Capacity flexibility **(3 marks)**

### QUESTION 4

- a) Quality costs broadly involve the costs of not getting something right the first time with clearly explained examples, discuss the various types of quality costs. **(10 marks)**
- b) i) What is float as used in project management?  
ii) Explain the various types of floats. **(10 marks)**

## QUESTION 5

- a) Write short notes on the following:
- i) Order winners and order Qualifiers **(3 marks)**
  - ii) Mass customization **(3 marks)**
  - iii) Fish borne diagram. **(4 marks)**
- b) What is Operations Management? Explain some of the current issues that impact on operations management function in organizations. **(10 marks)**