

# TECHNICAL UNIVERSITY OF MOMBASA

SCHOOL OF BUSINESS

DEPARTMENT OF MANAGEMENT SCIENCE

## UNIVERSITY EXAMINATION FOR:

BACHELOR OF COMMERCE (PROCUREMENT AND LOGISTICS OPTIONS)

**BPC 4305: OPERATIONS MANAGEMENT** 

## **END OF SEMESTER EXAMINATION**

# SPECIAL/SUPPLEMENTARY EXAMINATIONS

**SERIES:** DECEMBER 2016

TIME: 2 HOURS

**DATE:** DECEMBER 2016

### **Instructions to Candidates**

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of FIVE questions. Attempt Question ONE and any other TWO Questions

Do not write on the question paper.

### **Question ONE**

The following table gives the activities predecessors and the 3 time estimating for each in weeks.

| Activity<br>A | Predecessor | Optimistic $\frac{\text{Time } (\mathbf{t}_0)}{1}$ | Most likely <u>Time (t<sub>m</sub>)</u> 2 | Pessimistic <u>Time (tp)</u> |
|---------------|-------------|--|---|------------------------------|
| В             | -           | 1  | 2   | 3                            |
| C             | -           | 1  | 2   | 3                            |
| D             | A           | 1  | 2   | 9                            |
| E             | A           | 2  | 3   | 10                           |
| F             | В           | 3  | 6   | 15                           |
| G             | В           | 2  | 5   | 14                           |

| Н | D, E    | 1 | 4 | 7  |
|---|---------|---|---|----|
| I | C       | 4 | 9 | 20 |
| J | I, G    | 1 | 2 | 9  |
| K | H, F, J | 4 | 4 | 4  |

- a) Draw the network diagram and determine the project's path and duration (14 marks)
- b) What is float as used in project management? Determine the total and free float for activity F in (a) above (8 marks)
- c) Explain the concept of the work breakdown structure and its application in project management (8 marks)

### **Question TWO**

- a) Operations consultancy is usually aimed at solving functional problems or improving the performance of an organization. With well explained examples, discuss the characteristics of operations management consultancy (10 marks)
- b) With examples, discuss some of the important emerging issues in operations management (10 marks)

### **Question THREE**

- a) Discuss the difference between internal and external operations consultants (12 marks)
- b) Explain how an operations competitive strategy can be formulated using Kaplan and Norton's Generic Strategy Map (8 marks)

### **Question FOUR**

- a) Scheduling is timetabling an important operations management activity in both manufacturing and service organizations. Give examples of scheduling activities in both manufacturing and service industries (10 marks)
- b) Operations managers have a very important role to play in organizations. Clearly discuss the main responsibilities of operation managers in the organization (10 marks)

#### **Question FIVE**

- a) What is productivity? Explain the different measures of productivity in operations management (10 marks)
- b) The emerging model in the industry is that every organization is in the service business. With examples, explain operations as a service (10 marks)