



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

((A Constituent College of JKUAT)

(A Centre of Excellence)

Faculty of Engineering & Technology

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

DIPLOMA IN BUILDING & CIVIL ENGINEERING

DIPLOMA IN CIVIL ENGINEERING

EBC 2318: CONSTRUCTION MANAGEMENT I

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: OCTOBER 2012

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*
- *Scientific Calculator*

This paper consists of **FIVE** questions

Answer question any **THREE** questions
 Maximum marks for each part of a question are clearly shown
 This paper consists of **THREE** printed pages

Question 1 (20 marks)

- a) State **SIX** different types of specialist contractors in the construction industry. **(3 marks)**
- b) State **THREE** duties and responsibilities of a clerk of work on site. **(3 marks)**
- c) Briefly explain **FOUR** relations that exist in any organization structure. **(10 marks)**
- d) Briefly explain any **TWO** factors that influence span of control. **(5 marks)**

Question 2 (20 marks)

The table below defines the activities within a small construction project.

Activity	Completion Time (Weeks)
A	4
B	3
C	4
D	3
E	8
F	3
G	4
H	5

- i) Draw the network diagram **(8 marks)**
- ii) Determine project completion time. **(4 marks)**
- iii) Identify critical activities **(4 marks)**
- iv) Determine slack time associated with each activity. **(4 marks)**

Question 3 (20 marks)

- a) State **FIVE** advantages of critical path method over Gantt chart. **(5 marks)**
- b) State **FIVE** disadvantages of shall organization structure. **(5 marks)**
- c) The table below shows operations carried out in a channel construction

(Assume each operation follows the other consecutively without delay).

No.	Activity	Duration
1	Site Clearance	3
2	Excavation	8
3	Timbering (Form work)	4
4	Leveling	3
5	Blinding	6
6	Reinforcement	12
7	Concreting	8

8	Formwork Removal	9
9	Finishes	5

Use information to:-

- i) Draw a Gantt Chart
- ii) Determine duration of the project. **(10 marks)**

Question 4 (20 marks)

- a) Briefly explain any type of construction contracts. **(8 marks)**
- b) For the contract in Q4 (a), state **FOUR** advantages and disadvantages. **(12 marks)**

Question 5 (20 marks)

- a) Using relevant sketches, illustrate importance of the following in construction planning:
 - i) Method statement
 - ii) Site investigation report. **(10 marks)**
- b) State **FOUR** advantages of military (deep) organization structure. **(4 marks)**
- c) Briefly state and explain **THREE** types of documents used in negotiating a construction contract. **(6 marks)**