



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of JKUAT)
Faculty of Engineering and Technology

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

CONSTRUCTION TECHNICIAN PART II

EBC 1120: SITE ORGANIZATION II

END OF SEMESTER EXAMINATION

SERIES: DECEMBER 2011

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*
- *Pocket Calculator*

This paper consists of **FIVE** questions

Answer question **ONE (COMPULSORY)** from **SECTION A** and any other **TWO** questions from **SECTION B**

Maximum marks for each part of a question are clearly shown

This paper consists of **THREE** printed pages

SECTION A (COMPULSORY)

Question 1

- a) State **SIX** advantages of contract planning to the contractor (6 marks)
- b) State **FIVE** roles of each of the following in a building project (15 marks)
- (i) Client
 - (ii) Architect
 - (iii) Quantity Surveyor
- c) Briefly explain the requirements and location of the following in site layout planning: (9 marks)
- (i) Administrative offices
 - (ii) Operatives huts
 - (iii) Storage areas

SECTION B (Answer any TWO questions from this section)

Question 2

- a) Outline the procedure for preparation of a Bar Chart programme (5 marks)
- b) Table 1 shows the activities of project and their durations (15 marks)
- (i) Prepare an arrow network diagram
 - (ii) Analyze the network to determine the critical path

Table 1

Activity (i, j)	Description	Duration (Days)	Activity (i, j)	Description	Duration (Days)
(1, 2)	A	5	(5, 6)	Dummy	0
(2, 3)	B	4	(5, 8)	G	8
(2, 4)	C	3	(6, 8)	H	9
(3, 5)	D	6	(7, 8)	I	2
(4, 6)	E	5	(8, 9)	J	6
(4, 7)	F	7			

Question 3

- a) Briefly explain the following tendering methods: (9 marks)
- (i) Open tendering
 - (ii) Selective tendering
 - (iii) Serial tendering
- b) Briefly explain the following types of construction contracts: (9 marks)
- (i) Cost-reimbursement contract
 - (ii) Target-cost contract
 - (iii) Lump sum contract
- c) List **FOUR** construction contract document (2 marks)

Question 4

- a) State **SIX** duties of the Local Authority's Building Inspector (6 marks)
- b) Using a flow chart illustrate the interrelationship between the parties involved in a building project (10 marks)
- c) State **FOUR** activities involved in pre-contract planning (4 marks)

Question 5

- a) State **FIVE** characteristics of a good project plan (5 marks)
- b) State **FOUR** factors that determine the activities of a construction project (4 marks)
- c) State **FIVE** factors that a contractor would take into account in deciding whether to tender for a job. (5 marks)
- d) State **THREE** considerations to be made in site layout planning with regard to each of the following:
 - (i) Adjoining property
 - (ii) Temporary services (6 marks)