THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

((A Constituent College of JKUAT)

(A Centre of Excellence)

Faculty of Engineering &Technology in Conjunction with Kenya Institute of Highways and Building & Technology (KIHBT)

DEPARTMENT OF ELECTRICAL & ELECTRONIC ENGINEERING

HIGHER DIPLOMA IN TECHNOLOGY

BLC 3202: ESTIMATING TENDERING & ENGINEERING SERVICES CONTRACT

END OF SEMESTER EXAMINATION
SERIES: AUGUST 2012
TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*
- *Non-Programmable Scientific Calculator*

This paper consists of **FIVE** questions
Answer any **THREE** questions

All questions carry equal marks
This paper consists of **THREE** printed pages

Question One (20 Marks)

a) Define:
   i) Law of tort
   ii) TORT **(4 marks)**

b) Explain the following types of TORT
   i) Negligence
   ii) Strict liability
   iii) Defamation
   iv) Nuisance **(8 marks)**

c) Explain each of the following clauses used in contracts.
   i) Arbitration
   ii) Liquidated damages
   iii) Choice of law and forum **(6 marks)**

d) Distinguish between Man's Law and Natural Law **(2 marks)**

Question Two (20 marks)

a) Define 'Tender Appraisal" **(2 marks)**

b) Describe the following terms as used in supplies department of any organization.
   i) Trade discount
   ii) Specifications
   iii) Proforma invoice **(6 marks)**

c) Distinguish the following identities in engineering contracts.
   i) Main contractor
   ii) Sub-contractor
   iii) Clerk of works **(6 marks)**

d) Explain the following terms as essential for a valid contract.
   i) Consent
   ii) Capacity
   iii) Consideration **(3 marks)**

e) Explain the following terms as implied in contracts.
   i) Duress
   ii) Mistake
   iii) Mis-representation **(3 marks)**

Question Three (20 marks)

a) State:-
   i) **FOUR** sources of site overheads cost in an engineering construction project
   ii) Any **THREE** malpractices which demonstrate abuse of tendering procedures.

iii) **TWO** advantages of estimating or cost planning for implementation of a construction project. **(9 marks)**

b) Explain the following types of contracts.
   i) Package deal
   ii) Cost reimbursement
   iii) Lamp sum **(6 marks)**

c) Explain why it is necessary to clarify ambiguities and uncertainties on issues including site visits before tendering for a construction project. **(5 marks)**

Question Four (20 marks)

a) (i) Give **THREE** conditions which illustrate FRUSTRATION of a project contract. **(3 marks)**
   (ii) Give the conditions in a contract agreement which the party which has done a mistake can escape liability. **(3 marks)**

b) Explain any **THREE** objectives of Network analysis in project implementation planning. **(4 marks)**

c) Table 1 below shows the logical sequence table for a project planning, programme for implementation. Using the forward-backward pass method, determine:
   i) The critical path in the network by showing it with double arrows to the end
   ii) The project duration
   iii) The float for activities D and J. **(10 marks)**

TABLE 1

Activity	Event No.	Time Loading in Weeks
A	1 – 2	2
B	1 – 7	4
C	2 – 3	4
D	7 – 3	0
E	3 – 4	10
F	3 – 5	16
G	4 – 5	0
H	5 – 6	5
I	5 – 8	14
J	6 – 10	0
K	6 – 10	4
L	8 – 10	3

Question Five (20 marks)

a) State all the steps required by the team conducting a consensus estimating session to obtain a good estimate for an engineering contract. **(6 marks)**

b) Define:
   i) Estimating
   ii) Estimate Assumption **(4 marks)**

c) (i) State any **FOUR** site preliminaries in a construction project.
   (ii) Explain each of the overhead mentioned in c (i) above. **(6 marks)**

d) Describe the procedure for measuring work onsite to assess percentage completion of a project.
(4 marks)