TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Engineering and Technology

DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN ELECTRICAL ELECTRONICS ENGINEERING (DEEE 6)

ESTIMATING TENDERING & ENG.SERVICES CONTRACTS

EEP 2309

END OF SEMESTER EXAMINATION

SERIES: MAY 2016

TIME: 2 HOURS

PAPER ONE
QUESTION ONE
   a) State:

       i)   The condition which a party which has done a mistake during signing of a contract agreement can escape liability.

                                                            (3marks)

       ii)   **THREE** condition illustrating frustration of a contract.

                                                             (3marks)

   b) Define a contract   **(2marks)**

   c) Explain in details the following essentials for a valid contract.

       i)   Consideration
       ii)   Genuine consent
       iii)   Capacity   **(6marks)**

   d) Describe the following types of contracts

       i)   Cost – reimbursement
       ii)   Bill of quantities
       iii)   Package Deal   **(6marks)**

QUESTION TWO
   a) Describe the following documentation related to the procedure of supply of materials to contracts

       i)   Purchasing order
       ii)   Statement of account
       iii)   Debit and credit notes
       iv)   Specifications   **(6marks)**

   b) Describe the procedure for measuring work on site to assess percentage completion of a project.   **(2marks)**

   c) Explain why each of the following meetings may be preferred to, over the other in a construction site.

       i)   Formal meeting
       ii)   Adhoc meeting   **(4marks)**

   d) Explain any **Four** site overheads in a construction project.   **(8marks)**

QUESTION THREE
   a) Define the following terminologies as used in network analysis for project implementation

       i)   Work Breakdown structure (WBS)
       ii)   Dummy Activity
       iii)   Float   **(8marks)**

   b) An Organization undertook a project having activities with costs and duration as shown in table 1 below .using the forward – backward pass method of network analysis construct the network and determine.

       i)   The Total cost of the project
       ii)   The Critical Path (to be shown on the network)
       iii)   The duration of the whole project
       iv)   The float for Activities C,G and J

Activity	Period(YRS)	Cost	Event	Activity	Period (YRS)	Cost	Event
A	3	2m	1-2	Y	1	1m	5-6
B	4	4m	1-3	K	5	2m	6-9
C	3	6m	1-4	L	2	3m	6-10
D	2	2m	2-5	M	3	4m	10-9
E	3	7.5m	3-6	N	1	3m	8-11
F	0	1m	3-7	O	½	2m	9-11
G	3	2m	4-7	p	½	1m	11-12
H	11/2	3m	7-10				
I	0	1m	5-8				

TABLE 1   **(20marks)**

QUESTION FOUR

a) Define Tender Appraisal   **(2marks)**
b) State   :
   i)   The Technical factors which influence tender prices   **(4marks)**
   ii)   The   main difference between estimating and tendering   **(2marks)**
c) Give the Advantages and disadvantages of the following Tendering procedures:
   i)   Open   Tendering
   ii)   Selective Tendering
   iii)   Package Deal   **(6marks)**
d) Explain why it is necessary to clarify ambiguities and uncertainties on the construction
   site before Tendering   **(3marks)**
e) Differentiate between Tender sum and contract sum   **(3marks)**

QUESTION FIVE

a) Explain the term "**WORK MEASUREMENT"** as a technique of measuring work, as given
   in work study.   **(2marks)**
b) Explain the following technique or method of measuring physical work in a construction
   project.
   i)   Piece work
   ii)   Fixed rate   **(4marks)**
c) Describe the duties of the following personnel
    in a construction project   **(6marks)**
d) Explain any **THREE** remedies for breach of contract.   **(4marks)**
e) Explain any **THREE** ways in which a contract can be discharged   **(4marks)**