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

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 any THREE Questions.
Do not write on the question paper.

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)**