

TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Engineering and Technology

DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING
*Faculty of Engineering and Technology in Conjunction with Kenya Institute of
Highways & Building Technology (KIHBT)*

HIGHER DIPLOMA IN TECHNOLOGY ELECTRICAL POWER ENGINEERING

EEP 2309: ESTIMATING, TENDERING AND ENGINEERING SERVICES CONTRACTS

END OF SEMESTER EXAMINATION

SERIES: DECEMBER 2016

TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATES:

1. You should have the following for this examination
 - Answer booklet
 - Electronic calculator
 - Student ID
 - Examination pass
2. This paper consists of **FIVE** questions.
3. Answer **ANY THREE** questions.
4. All questions carry equal marks.
5. **Do not write on the question paper**
This paper consists of **THREE** printed pages

PAPER TWO

QUESTION ONE

1. Distinguish the following program ordering and associated documentation for material supplies to contracting companies
 - i. Purchase order
 - ii. Quotation
 - iii. Delivery note
 - iv. Invoice (8mks)
2. Define the following in project site control and administration
 - i. Work measurement
 - ii. Method study (4mks)
3. State the objectives of b(i) and b(ii) above (4mks)
4. Explain the following procedures in details in project site administration
 - i. Formal meetings
 - ii. Adhoc meetings (4mks)

QUESTION TWO

1. In relation to construction site meetings for Adhoc meetings, state;
 - i. The purpose
 - ii. The convenor
 - iii. The parties to attend (6mks)
2. Explain why each of the following meetings may be preferred to over the other in a construction site.
 - i. Formal meeting
 - ii. Adhoc meeting (6mks)
3. Explain the term 'work measurement' as a technique of measuring work in work study (2mks)
4. Explain the following techniques of measuring physical work.
 - i. Piece work
 - ii. Hourly rate
 - iii. Fixed time (6mks)

QUESTION THREE

1. Define;
 - i. TORT
 - ii. LAW OF TORT (2mks)
2. Explain the following types of TORT
 - i. Negligence TORT
 - ii. Strictly liability TORT
 - iii. Intentional TORT (5mks)
3. Explain the following sources of law
 - i. Judiciary precedent

- ii. Custom
 - iii. Equity (5mks)
4. Explain the following clauses in solving disputes in contracts
- i. Choice of law and forum clause
 - ii. Arbitration clause
 - iii. Liquidated damages clause (5mks)
5. Explain the following essentials for a valid contract
- i. Consideration
 - ii. Intention to create legal obligations (3mks)

QUESTION FOUR

1. Define tender appraisal (2mks)
2. Describe the following terms as used in supplies department of any organization.
- i. Trade discount
 - ii. Specification
 - iii. Proforma invoice (6mks)
3. Distinguish the following identities in engineering contracts
- i. Main contractor
 - ii. Clerk of work
 - iii. Sub contractor (6mks)
4. Explain the following terms as implied in contracts
- i. Duress
 - ii. Mistake
 - iii. Mis-representation (3mks)

QUESTION FIVE

1. Using suitable sketches explain the organization of the following planning tools,
- i. C.P.M
 - ii. W.B.S
 - iii. Gantt chart (3mks)
2. Define the following terminologies as used in network analysis for project planning for implementation.
- i. Dummy project
 - ii. Events
 - iii. Float
 - iv. Network (4mks)
3. An organization undertook a project with activities as listed in the table 1 below.

ACTIVITY	DURATION MONTHS	NODE NUMBERS
A	2	1-2
B	3	1-3
C	2	1-4
D	5	2-5
E	0	3-6
F	4	3-7
G	3	4-7
H	3	5-6
I	5	5-8
J	2	6-9
K	2	6-10
L	3	7-10
M	2	8-9
N	3	9-10
O	2	10-11

By using Network analysis;

Determine;

- i. The project duration
- ii. The critical path in the network
- iii. The floats for activities F and H

(13mks)