



TECHNICAL UNIVERSITY OF MOMBASA

SCHOOL OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF ELECTRICAL & ELECTRONIC ENGINEERING

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN ELECTRICAL & ELECTRONIC ENGINEERING

EEP2309 : ESTIMATING, TENDERING & ENGINEERING SERVICES

END OF SEMESTER EXAMINATION

SERIES: NOVEMBER 2024

TIME: 2 HOURS

DATE: NOVEMBER 2024

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.

Question ONE

- (a) Explain any FOUR distinctions between contract and tort
- (b) Name FOUR objectives of law of tort (8marks)
- (c) Explain the following the following elements of law of contract
 - (i) Consideration
 - (ii) Offer and acceptance
 - (iii) Legal relations (6marks)
- (d) Explain the difference between the following in the law of contract
 - (i) Duress
 - (ii) Undue influence (6marks)

Question TWO

- a) Explain the following natures of law giving an example of each
 - (i) Laws of physical sciences
 - (ii) Laws of social science
 - (iii) Moral laws
 - (iv) Laws of state (8marks)
- b) Discuss the purpose of law in society (4marks)

c) Outline two points of distinction between:

- (i) Direct legislation and indirect legislation
- (ii) Civil and criminal law

(8marks)

Question THREE

(a) State THREE

- (i) Factors considered when preparing an estimate
- (ii) Documents that should accompany a detailed estimate

(6marks)

(b) Describe TWO methods of work measurement for electrical engineering work **(4marks)**

- (c) (i) State THREE methods of 'taking off' materials from electrical design drawings
- (ii) Explain the need of examining a Bill of Quantities against design drawings **(6marks)**

(d) State FOUR ways in which tendering procedures can be abused **(4marks)**

Question FOUR

a) Briefly explain the **FIVE** project development stages in project management **(10marks)**

b) The information in table 1 has been provided for a particular project which management would like to have completed in 16weeks

Activity	Optimistic time (weeks)	Most likely time (weeks)	Pessimistic time(weeks)
1-2	1	2	3
1-3	5	7	10
1-4	2	5	6
2-5	3	4	5
3-4	1	2	3
4-6	2	4	6
4-7	4	6	9
5-7	2	3	10
6-7	2	5	6

Draw the network and determine the expected time for each activity

(6marks)

c) Define the roles played by the following in an engineering project:-

- (i) Quantity Surveyor
- (ii) Site Engineer

(4marks)

Question FIVE

a) Explain how tendering is beneficial to both the buyer and supplier.

(6marks)

- b) Numerate and explain the basic requirements for eligibility to tender for an advertised government contract **(8marks)**
- c) Explain the roles of the following bodies in Kenya government contracting.
- (i) Access to Government Procurement Opportunities (AGPO)
 - (ii) Public Procurement Oversight Authority (PPOA)
 - (iii) Public Procurement Administrative Review Board (PPARB). **(6marks)**