



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 AND ENGINEERING 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 TWO

QUESTION ONE

- a) Explain any **TWO** ways of discharging a contract. **(2marks)**
- b) State :-
 - i) Any two sources of **PRIME COSTS**
 - ii) **FOUR** sources of site overheads
 - iii) **FOUR** sources of office overheads, in a construction firm. **(10marks)**
- c) Distinguish between man’s law and natural law and give one example of each. **(4marks)**
- d) Site meetings are very important in construction projects .State in formal meetings.
 - i) The purpose
 - ii) The convener
 - iii) The parties to attend **(4marks)**

QUESTION TWO

- a) State the **THREE** main objectives of Network Analysis in project implementation planning. **(6marks)**
- b) A certain Engineering project had Activities ,with costs and duration as shown in Table 1 below .Using the critical path method (CPM)construct the network and determine :-
 - i) The critical path on the network and state the duration of the project.
 - ii) The total cost of the project
 - iii) Float of Activities C ,G and M

Activity	Duration	Cost	Node number	Activity	Duration (months)	cost	Node number
A	4		1-2	M	3		10-9
B	9		1-3	N	2		8-11
C	2		1-4	O	3		9-11
D	6		2-5	P	1		11-12
E	3		3-6				
F	0		3-7				
G	4		4-7				
H	7		7-10				
I	4		5-8				
J	2		5-6				
K	5		6-9				
L	6		6-10				

TABLE 1

(14marks)

QUESTION THREE

- a) State any **three** malpractices which demonstrate Abuse of Tendering procedures **(3marks)**

- b) Explain any **FOUR** factors to be considered when selecting the best possible technical services provider for an organization **(4marks)**
- c)
 - i) State any four site and four office overhead for a Construction organization **(3marks)**
 - ii) Explain each of the **Eight** overheads in C (i) above. **(6marks)**
- d) Explain any **TWO** factors to be considered when making a competitive bidding (tender) **(3marks)**

QUESTION FOUR

- a) Describe the following documentation related to the procedure of supply of materials to contracts
 - i) Quotations
 - ii) Delivery notes
 - iii) Invoices
 - iv) Bill of quantities **(8marks)**
- b) Explain why profit calculations are spread over in the bill of quantities during the estimating process for inclusion is the Tender sum. **(4marks)**
- c) Explain provisional sums (p. s) in cost estimates for a construction contract. **(4marks)**
- d) State **TWO** advantages of the client making a priced Bill of quantities in cost planning for implementation of a construction project. **(4marks)**

QUESTION FIVE

- a) Explain the following contract clauses
 - i) Variation
 - ii) Extension of time
 - iii) Claims
 - iv) Retention money **(8marks)**
- b) Explain the following procedures in settlement of disputes in contracts
 - i) Arbitration clause
 - ii) High court proceedings clause
 - iii) Liquidated Damages clause **(6marks)**
- c) Explain the following sources of law
 - i) judicial precedent
 - ii) Custom
 - iii) Common law **(3marks)**
- d) Explain the following types of **TORT**
 - i) Nuisance
 - ii) Negligence
 - iii) Strictly liability **(3marks)**