



MACHAKOS UNIVERSITY

University Examinations 2016/2017

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

SECOND YEAR SEMESTER EXAMINATION FOR CERTIFICATE IN
ELECTRICAL AND ELECTRONICS ENGINEERING

SUPPLEMENTARY EXAMINATION

EPC 218: ESTIMATING AND TENDERING

DATE:

TIME:2 HRS

INSTRUCTIONS:

*This paper consists of **FIVE** Questions. Answer Question ONE and ANY OTHER TWO questions.*

SECTION A: COMPULSORY)

1. a) State and explain THREE purposes of Law (9 marks)
- b) State and Explain any FIVE essentials of a valid contract. (15 marks)
- c) Explain ANY THREE roles of an Electrical engineer in a site administration (6 marks)

SECTION B: ANSWER ANY TWO QUESTIONS

2. a) A corridor is to be lit by four lamps spaced 20 m and suspended at a height of 6m above the centre line of floor. If each lamp gives 300cd in all directions below the horizontal, find the illumination at the point on the floor mid way between the 3rd and 4th lamp
- b) State and explain ANY FIVE differences between CRIME and CIVIL WRONG. (10 marks)

- c) Define the following terms
- i) Tender
 - ii) Tender document (4 marks)
3. a) Define the following types of law
- i) Physical
 - ii) Social
 - iii) Moral
 - iv) State laws (8 marks)
- b) Explain four types of tenders indicating their advantages and disadvantages (12)
4. a) State two factors that influence the demand for
- i) Labour
 - ii) Capital (6 marks)
- b) Explain three causes of inflation in a country (9 marks)
- c) Outline **Five** ways of increasing productivity in an organization (9 marks)
- 5 a) State two factors one may consider when deciding whether to buy an engineering Equipment. (2 marks)
- c) State and Explain Any **THREE** sources of law. (6 marks)
- c) With reference to TORT Outline Four elements necessary in determining the liability for negligence (12 marks)