



MACHAKOS UNIVERSITY

University Examinations for 2020/2021 Academic Year

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

FIRST YEAR FIRST TERM EXAMINATION FOR

CERTIFICATE IN ELECTRICAL AND ELECTRONICS ENGINEERING

1601/105ELECTRICAL INSTALLATION I

DATE: 7/6/2021

TIME: 2.30-5.30 PM

INSTRUCTIONS

Attempt all questions

- 1 a) State and explain five factors to be considered when choosing a wiring system (10 marks)
- b) Describe five accessories used in wiring system (10 marks)
- 2 a) State and explain eight IEE regulations to be observed when carrying out electrical wiring (10 marks)
- b) Describe the following types of steel conduits (10 marks)
 - i. Class A
 - ii. Class B
- 3 a) With and aid of a diagram explain the sequence of electric control (15 marks)
- b) With an aid of an analytical diagram explain how to install single switch to control single bulb (5 marks)
- 4 a) Briefly explain the advantages and disadvantages of ring connection over radial connection as used in electrical installation (10 marks)
- b) With an aid of a diagram explain the connection of ring and radial installation 10 marks
5. a) Outline the procedure for carrying out polarity test on a completed electrical installation with a circuit dead (8 marks)
- b) State any three advantage of plastic conduit as compared to metallic wiring system (6 marks)
- c) State and three reasons for periodic inspection and testing of an electrical installation work (6 marks)