

**MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**P.O. Box 972-60200 – Meru-Kenya**

**Tel: 020-2069349, 061-2309217. 064-30320 Cell phone: +254 712524293, +254 789151411**

**Fax: 064-30321**

**Website:** [**www.must.ac.ke**](http://www.must.ac.ke) **Email:** [**info@must.ac.ke**](mailto:info@must.ac.ke)

**University Examinations 2015/2016**

FIRST YEAR SECOND SEMESTER EXAMINATION FOR

CERTIFICATE IN

ELECTRICAL INSTALLATION

**EEE 1151: ELECTRICAL INSTALLATION TECHNOLOGY II**

**DATE: AUGUST 2016 TIME: 1 ½ HOURS**

**INSTRUCTIONS:** *Answer question* ***one*** *and any other* ***two***questions.

**QUESTION ONE (30 MARKS)**

1. Explain the importance of testing an electrical after completion (6 marks)
2. State in order the tests which are carried out in an electrical installation in a domestic premises after completion (4 marks)
3. Describe any THREE factors which affect the choice of wiring system (6 marks)
4. Explain stroboscopic effect and state the two methods used to eliminate its effect. (6 marks)
5. Describe the following types of wiring systems and state any one application of each:
6. Trunking (4 marks)
7. Rising main busbars (4 marks)

**QUESTION TWO (15 MARKS)**

1. With the aid of a labeled diagram explain the operation of a fluorescent discharge lamp

(6 marks)

1. Draw a layout of a THREE bedroom premises for lighting and power circuits using PVC conducts. (9 marks)

**QUESTION THREE (15 MARKS)**

1. With the aid of a labeled diagram, explain how the following tests are carried out on a completed electrical installation
2. Verification of polarity (5 marks)
3. Earth electrode resistance test. (5 marks)
4. Briefly describe the process of handing-over a new extension of electrical installation work to a client. (5 marks)

**QUESTION FOUR (15 MARKS)**

1. With the aid of a labeled diagram the operation of a current-operated earth leakage circuit breaker and state one advantage and one disadvantage of the circuit breaker. (10 marks)
2. With the aid of a labeled diagram, describe the protective multiple earthing system (5 marks)