

**MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY**

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**University Examinations 2014/2015**

FIRST YEAR, SECOND SEMESTER EXAMINATION FOR DIPLOMA IN ELECTRICAL AND ELECTRONICS ENGINEERING

**EEE 0222: ELECTRICAL INSTALLATION TECHNOLOGY III**

**DATE: DECEMBER 2014 TIME: 1 HOURS**

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

**QUESTION ONE (30 MARKS)**

1. With the aid of diagrams describe three types of fuses (6 marks)
2. Draw the electronic symbols of the following (8 marks)
3. Intermediate Switch
4. Socket outlet
5. Electric bell
6. Electric metre
7. Explain the need for protection (2 marks)
8. With the aid of a diagram describe a refrigeration system (6 marks)
9. Describe the following terms as used in installation (8 marks)
10. Earthing
11. Diversity
12. Fusing factor
13. Discrimination

**QUESTION TWO**

1. With the aid of diagram, describe a earth leakage circuit breaker which is current operated (8 marks)
2. With the aid of a diagram describe a unitary air conditioning system (7 marks)

**QUESTION THREE**

1. Draw a domestic power intake point show the supply authority equipment and the consumer equipment (7 marks)
2. With aid of a diagram describe HBC fuse (5 marks)
3. State three reasons of earthing (3 marks)

**QUESTION FOUR**

1. Describe a current breaker and state one type of a circuit breaker (2 marks)
2. Define the following terms as used in installation (8 marks)
3. Diversity
4. Fusing factor
5. Fusing current
6. Final circuit
7. Explain the need for standby supply (2 marks)
8. State three methods of electrical protection (3 marks)