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**University Examinations 2014/2015**

FIRST YEAR, FIRST SEMESTER EXAMINATION FOR DIPLOMA IN ELECTRICAL AND ELECTRONIC ENGINEERING

**EEE 0202: ELECTRICAL INSTALLATION TECHNOLOGY 1**

**DATE: DECEMBER 2014 TIME: 1**$\frac{1}{2}$ **HOURS**

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

**QUESTION ONE (30 MARKS)**

1. Explain briefly:
2. Importance of safety in electrical installation work (2 marks)
3. The role of IEE Regulations in electrical installations (2 marks)
4. Define the following terms
5. Cable (2 marks)
6. Wiring system (3 marks)
7. Accessory (2 marks)
8. State the three types of fuses used in protection of electric circuits and in each case state the major area of application (6 marks)
9. State and explain briefly the three main stages of electrical power supply system in a given country (9 marks)
10. State the four major tests carried out on a newly completed electrical installation

(4 marks)

**QUESTION TWO (15 MARKS)**

1. State four factors that determine the severity of electric shock (4 marks)
2. Draw a labelled diagram of a three phase four wire system of power supply and show how single phase and three phase loads are connected (11 marks)

**QUESTION THREE (15 MARKS)**

Use a schematic diagram to show the various stages of an electrical supply system in a country, giving voltage transformations at every stage (15 marks)

**QUESTION FOUR (15 MARKS)**

1. State four factors considered when selecting a wiring system for a particular installation (4 marks)
2. With the aid of a labelled diagram, describe the operation of miniature circuit breaker

(10 marks)

1. State one advantage of a circuit breaker over a fuse (1 mark)