



# **TECHNICAL UNIVERSITY OF MOMBASA**

---

**FACULTY OF ENGINEERING AND TECHNOLOGY**

**DEPARTMENT BUILDING AND CIVIL ENGINEERING**

**UNIVERSITY EXAMINATION FOR:**

**BSC IN CIVIL ENGINEERING**

**ECE 2318: TRANSPORTATION ENGINEERING**

**END OF SEMESTER EXAMINATION**

**SERIES: APRIL 2016**

**TIME: 2 HOURS**

**DATE: 17 May 2016**

**Instructions to Candidates**

You should have the following for this examination

*-Answer Booklet, Drawing Instruments, Scientific calculator, examination pass and student ID*

This paper consists of five questions. Attempt question ONE (Compulsory) and any other TWO questions.



## Section A compulsory

### Question one

- a) Before commencing on travel for casting the necessary information needs to be obtained. In relation to this explain the following
- i) Sub diving the study area
  - ii) Defining boundaries **(10marks)**
- b) With the aid of sketches describe the four types of transportation networks. **(10marks)**

### Question two

- a) There is a relationship between speed, density and flow. With the aid of typical plots explain the relationship between them **(20marks)**

### Question three

- a) Name and explain in details the four basic elements that constitutes the physical plan of most transportation systems. **(10marks)**
- b) Differentiate between systematic sampling and stratified sampling **(20marks)**

### Question four

There are three methods used commonly used collect data. Name and explain them. **(20marks)**

### Question five

- a) Explain in details the steps followed in transport policy making **(10marks)**
- b) Name and explain five properties of the element that have a direct impact on human behaviour. **(10marks)**

