



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

University Examination 2010

THIRD YEAR/FIRST SEMESTER EXAMINATION FOR THE DEGREE IN BACHELOR OF SCIENCE IN CIVIL ENGINEERING SUPPLEMENTARY PAPER

ECE 2308: TRANSPORTATION PLANNING DEVELOPMENT (TPD)

SERIES: APRIL/MAY 2010

TIME: 2 HOURS

Instructions:

Attempt Question **One** and any other **TWO** questions.
The total mark is 70 marks.

QUESTION ONE

Land use planning can be considered in two contexts. First it considers all forms of planning, and secondly, it is a discipline by itself, having its own set of theories and practices. Briefly describe **3** of these theories and practices. (30 marks)

QUESTION TWO

By use of simple sketches, illustrate the typical transportation demand curve and shifted demand curves. (20 marks)

QUESTION THREE

- (a) Briefly describe the two categories of traffic flow. (4 marks)
- (b) Using mathematical expressions, describe the following terms:
- (i) Space mean speed
 - (ii) Time mean speed
 - (iii) Lane occupancy. (6 marks)

- (c) Briefly describe the negative socio-economic implications of the Likoni Ferry crossing transportation problems to a Mombasa Polytechnic University College day scholar who resides in Likoni. Suggest some solutions to the problem. (10 marks)

QUESTION FOUR

- (a) Briefly describe the **3** stages in a typical highway design planning. (10 marks)
- (b) Briefly describe each of the **5** rural road classification in Kenya and give one example of each in Coast Province. (10 marks)