



TECHNICAL UNIVERSITY OF MOMBASA
**Faculty of Engineering &
Technology**

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

UNIVERSITY EXAMINATION FOR DECREE IN:

BACHELOR OF SCIENCE IN CIVIL ENGINEERING (BSCE)

ECE 2521: TRANSPORT & LAND USE, URBAN & REG. PLANNING

END OF SEMESTER EXAMINATION

SERIES: APRIL 2015

TIME ALLOWED: 3 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*
- *Pocket Calculator*

This paper consists of **FIVE** questions. Answer questions **ONE & TWO (COMPULSORY)** and any other **THREE** questions

Maximum marks for each part of a question are as shown

Use neat, large and well labeled diagrams where required

This paper consists of **TWO** printed pages

Question One (Compulsory)

- a) “Land value determines land use” Discuss with relevant examples (8 marks)

Question Two

- a) Regardless of the geographical setting of any city, its urban form and its spatial structure are articulated by two structural elements. Discuss with relevant example (7 marks)
- b) What are the TWO types of nodes (3 marks)
- c) What are their significance in relation to urban spatial structure (7 marks)

Question Three

With relevant example, discuss any THREE of the major components of the spatial imprint of urban transportation (15 marks)

Question Four

Urban transportation is organized in THREE broad categories. Briefly describe the THREE categories with relevant examples (15 marks)

Question Five

- a) Discuss TWO major factors contributing to automobile dependency (6 marks)
- b) What are some of the strategic policies used to reduce automobile dependency (9 marks)

Question Six

- a) Name the FOUR types of urban structures (2 marks)
- b) The diagram below represents what type of urban structure (2 marks)

Active counter

- c) What are the key characteristics of the urban structure you have identified in 5(b) above
(11 marks)

Question Seven

Land rent theory was also developed to explain land use as market where different urban activities are competing for land usage at a location. Discuss
(15 marks)