TECHNICAL UNIVERSITY OF MOMBASA
Faculty of Business & Social Studies

DEPARTMENT OF BUSINESS STUDIES

DIPLOMA IN LOGISTICS AND TRANSPORT MANAGEMENT

(YI, SII)

BLT 2106: TRANSPORT PLANNING

END OF SEMESTER EXAMINATIONS

SERIES: APRIL 2015

TIME: 2 HOURS

INSTRUCTIONS:

- This paper consists of **FIVE** questions.
- Answer question **ONE (Compulsory)** and any other **TWO** questions.
- Do not write on the question paper

This paper consists of Three printed pages.

QUESTION 1 (Compulsory)

a) Define transport planning.   **(2 marks)**

b) Outline the transport planning steps.   **(8 marks)**

c) State **SIX** reasons why it is necessary to carry out transport planning in urban areas.   **(6 marks)**

d) To move from Town A to Town B, there are **THREE** possible routes. The shorter direct route from A to B, the Northern By pass and the Southern by pass both of which are equally long: Explain the effects of improving the Southern by-pass only between these two towns.   **(8 marks)**

e) Identify the key ideas in the utility theory in modal choice in transport.   **(3 marks)**

f) Comment on the effect of new technology, particularly IT on traveling to work or business purposes.
                                                                                  (3 marks)

QUESTION 2

Explain the following terms used in transport:
a) Transport demand.   **(3 marks)**
b) Transport supply   **(3 marks)**
c) Generated traffic   **(3 marks)**
d) Induced travel   **(3 marks)**
e) Latent transport demand   **(3 marks)**
f) Transportation yield point   **(3 marks)**
g) Link flows.   **(2 marks)**

QUESTION 3

Mombasa town has of late been experiencing very serious traffic jams. Identify the main causes of the jams and the possible ways in which the situation can be improved.   **(20 marks)**

QUESTION 4

a) i)   Identify **FIVE** common route designs
    ii) Where do the route designs identified in a (i) mostly constructed for use.   **(10 marks)**

b) Identify **FIVE** types of freight trucks body designs.   **(5 marks)**

c) Explain the term vehicle scheduling.   **(5 marks)**

QUESTION 5

a) Distinguish between trip attractions and trip production.   **(4 marks)**

b) i) Identify **FIVE** possible factors that affect trip production from a given zone.
    ii) Using the factors in b (i) propose a linear equation relating the factors to trip productions
                                                                                                                          (9 marks)

c) i) State the delay function and define all the parameters.
    ii) Determine the delay on a road with a capacity of 4400, travellers when 5000 people choose to use it. When a single user takes 20 minutes on the road.   **(7 marks)**