



# TECHNICAL UNIVERSITY OF MOMBASA

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## SCHOOL OF BUSINESS

### DEPARTMENT OF MANAGEMENT SCIENCE

#### UNIVERSITY EXAMINATION FOR:

#### DIPLOMA IN LOGISTIC AND TRANSPORT

#### BLT 2106: TRANSPORT PLANNING

#### END OF SEMESTER EXAMINATION

**SERIES: APRIL 2016**

**TIME: 2 HOURS**

**DATE: Pick Date May 2016**

#### Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

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

**Do not write on the question paper.**

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#### Question ONE

- a) How can pricing be used to control transport demand

(5marks)

- b) With the standard gauge Railway (SGR) nearing completion road freight transports no longer view its coming as a major threat to their business.

What advantages do the road freight transport have over the SGR.

(5marks)

- c) Explain the following transport service operations

- (i) Timetabling giving a sample timetable  
(ii) Scheduling

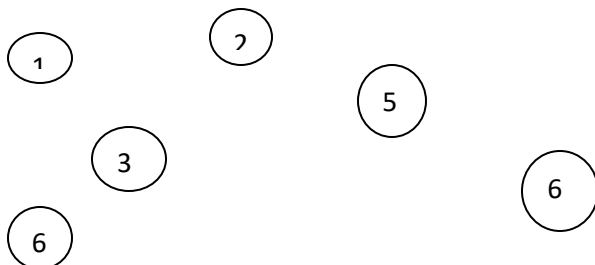
(20marks)

## Question TWO

- (a) Nation media group uses the nearest neighbor procedure in routing newspaper delivery vans  
State four steps involved in this procedure

(4marks)

- (b) Given the following newspaper distribution centers for newspaper , assuming node 1 is the Nation newspaper printing centre , with explanation connect all the nodes to provide correct routing service using the nearest neighbor procedure



(6marks)

- (c)
- How do transport planners determine reasonable transport service frequency
  - State the equation used to determine the appropriate transport service frequency, defining all the variables

(10 marks)

## Question THREE

Assume you are appointed Mombasa town transport planner and the first task you are assigned is to identify the possible cause of traffic congestion in different parts of the town at different times and to provide the suggestions for possible solutions

Identify the possible causes of the traffic congestion and suggest the possible solutions to them

(20marks)

## Question FOUR

- a. Define the following as used in transport planning

- Transport Modelling
- Linear regression

(2marks)

- b.

- (i) State five reasons for transport Modelling

(5marks)

- (ii) Draw a schematic diagram of a four step modeling process giving the link flows as output

(5marks)

- (iii) Explain what each step of the four step modeling process entails:

(8marks)

### **Question FIVE**

- (a) Explain the term “Transport demand price elasticity” and its implications on revenue (8marks)
- (b) Use a diagram to explain the impact of increasing Road capacity on generated traffic over time period (6marks)
- (c) Identify six factors that affect passenger transport demand for a particular transport service (6marks)