



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT BUILDING AND CIVIL ENGINEERING

UNIVERSITY EXAMINATION FOR:

BSC IN CIVIL ENGINEERING

ECE 2507: LOGISTICS AND SYTEM ANALYSIS IN

TRANPORTATION

END OF SEMESTER EXAMINATION

SERIES:APRIL₂₀₁₆

TIME:2HOURS

DATE:12May₂₀₁₆

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) i) Briefly describe 'logistics' as used in transportation (6marks)
- ii) Explain in details the role played by a logistics manager in a transport company. (10marks)
- b) With the aid of a flow chart describe the logistics functional structures. (8marks)
- c) Name and briefly explain the main elements of logistics. (6marks)

Section B: answer two questions

Question two

- a) Explain the total logistics concept (10marks)
- b) In relation to vehicle capacity explain how the vehicle capacity affects the income to a logistics company. Use hypothetical examples to support your explanation. (10marks)

Question three

- a) Differentiate between logistics and supply chain management (10marks)
- b) Briefly explain the policy measures that affect logistics in the East African countries. (10marks)

Question four

Name and explain the FOUR main problems that are encountered in vehicle routing and scheduling.

(20marks)

Question five

- a) Describe the steps that are followed to hire temporary staff in a logistic company. (10marks)
- b) Name and explain the main traditional logistics areas of responsibility. (10marks)
- c) Briefly describe the following machines used in logistics operations:
 - i. Gripper lift
 - ii. Reach stacks (6marks)

