



TECHNICAL UNIVERSITY OF MOMBASA

SCHOOL OF ENGINEERING AND TECHNOLOGY

Department of BUILDING & Civil engineering

UNIVERSITY EXAMINATION FOR:

BACHELOR OF TECHNOLOGY IN CIVIL ENGINEERING

TCV 4421 : INTRODUCTION TO PHYSICAL PLANNING

END OF SEMESTER EXAMINATION

SERIES: August 2024

TIME: 2 HOURS

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **four** questions.

Attempt question ONE (Compulsory) and any other TWO questions.

Do not write on the question paper.

QUESTION ONE (COMPULSORY 20 MARKS)

- i. Define transportation planning. (2 marks)
- ii. Explain briefly the various stages involved in Transportation Planning process for any county government. (10 marks)
- iii. Briefly discuss interaction between zoning with transport modeling. (8 marks)

ANSWER ANY TWO QUESTIONS

QUESTION TWO

- a) Define traffic analysis zone. (2 marks)
- b) Briefly explain the advantages and limitations of growth factor model. (8 marks)
- c) Explain the inventory of transportation facilities. (10 marks)



QUESTION THREE

- a) Briefly explain TWO main categories of transport systems. (6 marks)
- b) Briefly explain the MAJOR causes of road accidents in Kenya. (10 marks)
- c) Explain the advantages of Pre-distribution modal split. (4 marks)

QUESTION FOUR

- a) Briefly explain difficulties in transportation planning for small and medium cities. (10 marks)
- b) Explain the application of traffic assignment. (10 marks)

QUESTION FIVE

- a) Briefly explain the advantages and limitations of growth factor model. (8 marks)
- b) Explain the importance of traffic calming especially where we have land use that is mixed use. (8 marks)
- c) Explain the role of the 'street' in an urban settlement. (4 marks)