

TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF ENGINEERING AND TECHNOLOGY

TRANSPORT PLANNING AND DEVELOPMENT

SERIES – NOVEMBER / DECEMBER

TIME 2 HOURS

INSTRUCTIONS TO CANDIDATES:-

You should have the following for this examination:-

1. Pocket calculator
2. Answer booklet

This paper consists of five questions in two sections A and B.

Answer question 1 compulsory and any other two questions in section b.

Maximum marks for each part of the question are as shown below.

This paper consist of two printed page

SECTION A: COMPULSORY

1. (a) Name and explain the three main objectives of public transportation (10 marks)
- (b) Explain the five steps are followed in a rational transport planning process. (10 marks)
- (c) Paratransits are low capacity vehicles commonly used in Kenya roads for passenger transport. Name and explain them. (10 marks)

SECTION B ANSWER ANY TWO QUESTIONS

2. (a) With the aid of a sketch explain bundling as used in public transportation. (10 marks)
 - (b) In relation to transportation planning explain the following :-
 - i. Land use analysis
 - ii. Economic analysis
 - iii. Financial analysis (10 marks)
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3. Describe the classification of public transit system in relation to the following:-
 - i. Level of service
 - ii. Type of right of way
 - iii. Transport function
 - iv. Type of service modes (20 marks)

4. (a) Explain the following trip generation modeling approaches and state two merits and two demerits of each approach:-

i. Category analysis

ii. Regression analysis (10 marks)

5. Name and explain the measures that can be used by transport authorities to minimize accidents on Kenyan roads. (20 marks)