JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF SPATIAL PLANNING

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF ARTS IN SPATIAL PLANNING

SEMESTER 2016/2017 ACADEMIC YEAR

CENTRE: MAIN CAMPUS

COURSE CODE: PSP 3326

COURSE TITLE: TRANSPORTATION PLANNING

EXAM VENUE: STREAM: SPATIAL PLANNING

DATE: EXAM SESSION:

TIME: 2 HOURS

<u>**Instructions:**</u>

1. **Answer question 1 (compulsory) and ANY other 2 questions.**

2. **Candidates are advised not to write on the question paper.**

3. **Candidates must hand in their answer booklets to the invigilator while in the examination room.**

1) (a) Define transportation planning   (2 marks)

(b) Explain the five steps in transportation planning (10 marks)

(c) Explain six reasons for transportation planning (6 marks)

(d) Explain six challenges facing urban transportation in Kenya (12 marks)

2) (a) Define accessibility as used in transportation (2 marks)

(b) Explain four general factors that affect accessibility (4 marks)

(c) Explain two major discoveries that revolutionized the transport sector (2 marks)

(d) Explain 6 factors considered when choosing a transport facility (12 marks)

3) (a) Discuss the systems approach as used in transportation planning (4 marks)

(b) Discuss two characteristics of the systems approach (2 marks)

(c) Explain four advantages of the systems approach (8 marks)

(d) Explain 6 ingredients of an integrated transport plan (6 marks)

4) (a) Explain 5 goals of modern transportation planning (5 marks)

(b) Explain five reasons why transport is changing (10 marks)

(c) Discuss five components of the travel way circulation system in urban areas

(5 marks)

5) (a) Explain the three major factors that influence the choice of mode by travellers
(6 marks)

(b) Explain how the causal factors are represented in the trip-end type modal split model

(4 marks)

(c) Discuss the set of variables used in the trip interchange type of mode-choice model
(6 marks)

(d) Explain two disadvantages of the earlier mode-choice models (4 marks)