

## THE TECHNICAL UNIVERSITY OF KENYA

### SCHOOL OF ARCHITECTURE AND BUILT ENVIRONMENT

Department of Urban and Regional Planning

Bachelor of Built Environment in Urban Design and Development Bachelor of Built Environment in Urban and Regional Planning

# Year III Semester II EXAMINATION

EAPR 3231 Planning for Line Infrastructures & Utilities EAPQ3231Urban Infrastructure Design

Time: 2hours

#### **INSTRUCTIONS TO CANDIDATES**

Answer Question One and any other Two Questions of Your Choice from Section Two in the Answer Booklet Provided. Start each Question in a Fresh Page.

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Answer 3 Questions. <u>Question One</u> from Section One and any other <u>Two Questions</u> of your choice from Section Two.

## Section One: Compulsory(30 marks)

#### Question 1:

- a. Define the following terms
  - a. Infrastructure
- (d) Energy (201Ks)

(2Marks)

b. Wayleavesc. Easements

(2Marks) (2Marks)

- b. Discuss the following Acts of parliament and how they affect planning for infrastructure in Kenya (12 marks)
  - i. Water act (2002)
  - ii. Energy act (2007)
  - iii. Urban Areas and Cities Act of 2011
- c. Discuss any 5 advantages of infrastructure planning

(10 Marks)

# Section Two: Answer any two (40 Marks) Question 2

a) Discuss the infrastructure planning process based on the comprehensive planning traditions

(10 marks)

b) Discuss any 5 infrastructure challenges in Developing Countries such as Kenya.

(10 marks)

#### Question 3

You have been approached by the Kenya Power and Lighting Company to acquire for the company wayleaves in Nairobi County. Describe the Wayleaves acquisition process of the assignment

(20Marks)

#### Question 4

Draw a life cycle for an infrastructure project of your choice, discuss the main activities in each phase.

(10 marks)

Discuss planning considerations for a sewage disposal and treatment site

(10 marks)

#### Question 5

Criqui, in her article on infrastructure urbanism, discusses a social-technical approach to the provision of drinking water that was developed and implemented in Lima, Peru. Explain what is meant by a socio-technical approach, and discuss its pros and cons.

(20 marks)