



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2018/2019

FIRST SEMESTER EXAMINATION FOR THE DEGREE IN BACHELOR OF
SCIENCE

BRE 213: ENVIRONMENTAL BUILDING SERVICES

DATE: Tuesday 11th December 2018

TIME: 11.00 a.m. – 1.00 p.m.

INSTRUCTIONS:

Answer Question 1 and any other Two Questions

Question 1

- a) Discuss five elements that influence the design of building service systems.(10 marks)
- b) Discuss 4 principles of drainage systems in buildings (10 marks)
- c) State five ways of heating water in a domestic building (5 marks)
- d) Outline five laws and regulations that are relevant in the provision of building services (5 marks)

Question 2

- a) Differentiate between surface and ground water sources stating three advantages and three disadvantages of each source. (10 marks)
- b) Discuss the requirements of a good water distribution system (10 marks)

Question 3

- a) Define sewage treatment (2 marks)
- b) Briefly explain the four levels of sewage treatment. (8 marks)
- c) Explain the principles of waste management (10 marks)

Question 4

Discuss ten components of a fire protection system in building. (20 marks)

Question 5

- a) Describe four precautions that should be observed when working on an electrical circuit. (8marks)
- b) Discuss three main features of a consumer control unit. (6 marks)
- c) Explain three causes of accidents in a workshop. (6 marks)