JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF SPATIAL PLANNING

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN
WATER RESOURCES AND ENVIRONMENTAL MANAGEMENT

SEMESTER 2018/2019 ACADEMIC YEAR

CENTRE: MAIN CAMPUS

COURSE CODE: PWE 3222
COURSE TITLE: WATER RESOURCES TECHNOLOGY II
EXAM VENUE: STREAM: WATER
DATE: 16/4/19 EXAM SESSION: 12.00 – 2.00PM
TIME: 2 HOURS

Instructions:

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.
Section A: Question is compulsory (30 marks)

1. (a) Explain the following terminologies giving relevant examples (i) natural resource (ii) microeconomics (4 marks)
(b) Differentiate the following terminologies allogenic succession and autogenic succession (3 marks)
(c) Outline the five key elements of economics and show how they relate to natural resources (10 marks)
(d) Briefly discuss the role of natural resources with respect to (i) conservation of habitats (ii) cultural values and (iii) integration with economic development (13 marks)

2. (a) Discuss five reasons why natural resources need to be classified (10 marks)
(b) List and give examples of five renewable resources (10 marks)

3. (a) Discuss five causes of market failures in natural resources management (10 marks)
(b) What is a "common property resource"? Discuss three empirical situations where this term is often used by economists (10 marks)

4. (a) Discuss five reasons which predisposes a natural resources to lootability (10 marks)
(b) List and give examples of five non-renewable resources (10 marks)

5. (a) Discuss four main approaches in resources management (10 marks)
(b) Explain three reasons why transaction costs are experienced in exploitation of natural resources (5 marks)
(c) What is equilibrium? What are the consequences of equilibrium in a free market? (5 marks)