



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF SPATIAL PLANNING
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN
WATER RESOURCE AND ENVIRONMENTAL MANAGEMENT
SEMESTER 2016/2017 ACADEMIC YEAR

CENTRE: MAIN CAMPUS

COURSE CODE: PES 3324

**COURSE TITLE: ECONOMICS, TECHNOLOGY AND ENVIRONMENTAL
DEGRADATION**

EXAM VENUE: STREAM: SPATIAL PLANNING

DATE: EXAM SESSION:

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.**

1. (a) Define the following terms:
 - (i) Scarcity (2 marks)
 - (ii) Free good (2 marks)
 - (iii) Opportunity cost (2 marks)

(b) Explain three broad categories of resources which man exploits for survival giving examples in each case (6 marks)

(c) Describe five appropriate technology of water supply measures which human beings can exploit in getting water (10 marks)

(d) Differentiate an Inferred Mineral Resource and an Indicated Mineral Resource giving appropriate examples (4 marks)

(e) Using an example of green maize in an open market, illustrate how its supply influences its market price (4 marks)
2. (a) Outline five factors of production (5 marks)
 - (b) Discuss two natural hazards that contribute to land degradation (9 marks)
 - (c) Discuss the likely consequences of land degradation (6 marks)
3. (a) Explain the meaning of indigenous technical Knowledge (2 marks)
 - (b) Justify the use of fire as a traditional resource management tool (8 marks)
 - (c) Discuss the various limitations of utilizing ITK in natural resources management (12 marks)
4. (a) Explain the meaning appropriate technology (2 marks)
 - (b) Discuss the advantages of appropriate technology (10 marks)
 - (c) Outline four main reasons for using environmental taxes (8 marks)
5. (a) Discuss three social factors that are contributing to land degradation (6 marks)
 - (b) Discuss five common causes of environmental degradation (10 marks)
 - (c) List four political barriers to the implementation of environmental energy taxes (4 marks)