JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF BIOLOGICAL, PHYSICAL, BIOLOGICAL AND ACTUARAL SCIENCES

UNIVERSITY EXAMINATION FOR THE AWARD OF A DEGREE OF BACHELOR OF EDUCATION SCIENCE

2nd YEAR 2nd SEMESTER 2022/2023 ACADEMIC YEAR

MAIN CAMPUS - REGULAR

COURSE CODE: SBB9203

COURSE TITLE: PLANT ECOLOGY AND ENVIRONMENTAL SCIENCES

EXAM VENUE: **STREAM: (BED.SC)**

DATE: 20/12/2022 **EXAM SESSION: 9.00-11.00AM**

TIME: 2 HOURS

Instructions:

1. **Answer ALL questions in Section A and Any two questions in Section B**
2. **Candidates are advised not to write on question paper**
3. **Candidates must hand in their answer booklets to the invigilator while in the examination room**

SECTION A: SHORT ANSWER QUESTIONS (30 MARKS)

1. Explain the relevance of plant ecology to the field of sustainable development (3 marks)
2. Outline effects of interspecific competition onnatural plant habitat ranges (3 marks)
3. State any three characteristics of pioneer species present during primary succession (3 marks)
4. Distinguish between primary and secondary productivity in plant communities (3 marks)
5. Explain the implication of competitive exclusion principle (3 marks)
6. Explain characteristics of allien plant species (3 marks)
7. Explain the rationale for conservation biology (3 marks)
8. State any three factors that determine abundance and distribution of plant species in a forest ecosystem (3 marks)
9. Outline population attributes important in ecological study of plant communities (3 marks)
10. Give three types of plant population dispersion in a natural habitat (3 marks)

SECTION B: ESSAY QUESTIONS (40 MARKS)

11. Discuss the influence of human activities on ecological integrity of plant communities globally (20marks)
12. Give an account of characteristics and uses of forest ecosystems in Kenya (20marks)
13. Describe sampling methods you would use for carrying out vegetation sampling in a grassland ecosystem (20marks)
14. Discuss conservation approaches relevant for the management of plant communities in East Africa (20marks)