



SOUTH EASTERN KENYA UNIVERSITY

UNIVERSITY EXAMINATIONS 2016/2017

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR SCIENCE IN BIOLOGY AND BACHEOR OF EDUCATION SCIENCE

SBL 201: PLANT ECOLOGY

5THDECEMBER, 2016

TIME: 10.30-12.30 P.M

INSTRUCTIONS TO CANDIDATES

- (a) Answer ALL the Questions in Section A**
- (b) Answer ANY TWO Questions in Section B**
- (c) Illustrate your answers with well labeled diagrams where appropriate**

SECTION A (30 Marks)

1. Name the first four levels in an ecological structure. (4 marks)
2. Briefly explain four ways temperature affect plant population. (4 marks)
3. List three filter levels that determine what plants exist in a specific region. (3 marks)
4. List the three timescales which are involved in plant response to stress. (3 marks)
5. Give four aspects of light that affect photosynthesis and hence plant distribution in a Population. (4 marks)
6. Differentiate amensalism and neutralism. (3 marks)
7. List the four life forms as defined by Raunkiaer. (4 marks)
8. Differentiate quantitative from qualitative characters that describe populations. (2 marks)
9. Briefly list the three procedures in the loopmethod. (3 marks)

SECTION B (40 Marks)

10. Discuss abiotic factors that affect plant population(s). (20marks)
11. In one of your plant ecology field study, you are required to quantitatively describe plant communities. In a concise manner, discuss the methods you would apply in attaining your goal. (20 marks)
12. Using clear examples, discuss **five** characters describing a community that are quantitative in nature. (20 marks)
13. Plant communities have dynamic structures. Discuss these structural dynamisms and state their functions in grassland, forests and deserts. (20 marks)