

160



(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS 2015/2016 ACADEMIC YEAR

SECOND YEAR SECOND SEMESTER MAIN EXAMINATION

FOR THE DEGREE OF BACHELOR OF EDUCATION SCIENCE

COURSE CODE: SBT 221
COURSE TITLE: PLANT ECOLOGY 1

DATE: 10th May 2016 **TIME:** 2:00 – 4:00 p.m.

INSTRUCTIONS TO CANDIDATES

Answer Question one(1) and any other two (2) Questions. Question one is compulsory and carries 30 marks , the other Questions carry 20 marks each.

TIME: 2 Hours

This paper consists of 2 printed pages. Please Turn Over



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Question 1

- a. i. Define Ecology (2mks)
 - ii. Explain why is it necessary to study ecology (2mks)
- b. Explain three causes of plant succession (3mks).
- c. Illustrate the simplified model of energy and nutrient flow in an ecosystem by Kormondy (5mks)
- d. Explain how human activities can affect plant communities (5mks).
- e. State the first and second laws of thermodynamics and relate them to ecology. (4mks)
- f. Describe three ecological pyramids (4mks)
- g. Distinguish between line transect and belt transect as methods of systematic sampling in ecology (5mks)
2. Discuss the biotic factors that determine plant species distribution and abundance (20mks).
3. Describe in detail the general process of ecological succession (20mks).
4. Discuss food chains and food webs in an ecosystem (20mks)
5. Discuss the trophic levels in an ecosystem (20mks)