



EMBU UNIVERSITY COLLEGE
(A CONSTITUENT COLLEGE OF THE UNIVERSITY OF NAIROBI)
FIRST SEMESTER EXAMINATIONS 2014/2015
FIRST YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN
BIOLOGY; BACHELOR OF SCIENCE IN MICROBIOLOGY AND
BIOTECHNOLOGY; BACHELOR OF SCIENCE IN ENVIRONMENTAL
CONSERVATION AND NATURAL RESOURCE MANAGEMENT AND BACHELOR
OF SCIENCE.

SZL 103: FUNDAMENTALS OF ECOLOGY

DATE: DECEMBER 11, 2014

TIME: 13:30 – 15:30

INSTRUCTIONS:

ANSWER ANY TEN (10) QUESTIONS (7 MARKS EACH)

1. Outline the costs and benefits of living in groups.
2. Describe the types of survivorship curves.
3. Outline the steps of the scientific method of study.
4. Discuss briefly the role of decomposers in ecosystem functioning.
5. Explain why wetlands should be conserved.
6. Compare and contrast Laissez-faire and active management.
7. Explain the main types of resource partitioning among competing species.
8. Describe the mark – release –recapture method for population sampling.
9. Explain the following biotic interactions between organisms.
 - a) Competition.
 - b) Predator-prey relationship.

c) Commensalism.

10. Describe briefly the types of ecological pyramids.
11. Explain briefly Shelford's law of tolerance.
12. Discuss briefly the impacts of excessive accumulation of carbon dioxide in the atmosphere.

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