



**EMBU UNIVERSITY COLLEGE**  
**(A Constituent College of the University of Nairobi)**

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2015/2016 ACADEMIC YEAR

FIRST SEMESTER EXAMINATIONS

FOURTH YEAR MAIN EXAMINATION FOR THE DEGREE OF BACHELOR OF  
SCIENCE IN BIOLOGY

SZL 401: ENVIRONMENTAL BIOLOGY AND CONSERVATION

**DATE: 9<sup>th</sup> DECEMBER 2015**

**TIME: 14:00-16:00**

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**INSTRUCTIONS:**

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

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1. Discuss the notable paths that Kenya has taken towards becoming green.
2. Explain the major concerns related to the continued dependence on fossil energy.
3. Discuss the strategies for sustainable utilization of water resources.
4. Compare and contrast the chemical and biological methods of water quality assessment.
5. Explain the principles necessary for achieving ecologically sustainable development.
6. Outline the major steps for carrying out an environmental impact assessment.
7. Explain the concept of planetary boundaries.
8. Discuss the environmental impacts of agriculture.
9. Discuss advantages and disadvantages of three major types of biological pest control.
10. Explain the island biogeography theory and its relevance for biodiversity conservation.
11. Discuss the relationship between biodiversity and ecosystem services.
12. Describe four different types of ecosystem services and how they relate to each other.

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