



# MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

P.O. Box 972-60200 – Meru-Kenya

Tel: +254(0) 799 529 958, +254(0) 799 529 959, + 254 (0) 712 524 293,

Website: [info@must.ac.ke](mailto:info@must.ac.ke) Email: [info@must.ac.ke](mailto:info@must.ac.ke)

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## University Examinations 2024/2025

SECOND YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN BIOCHEMISTRY AND BACHELOR OF SCIENCE IN ENVIRONMENTAL SCIENCE AND NATURAL RESOURCE MANAGEMENT

### SBT 3200: ENVIRONMENTAL SCIENCE

**DATE: DECEMBER 2024**

**TIME: 2 HOURS**

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**INSTRUCTIONS:** Answer question *one* and any other *two* questions

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#### QUESTION ONE (30 MARKS)

- a) Distinguish between the following terms:
- (i) Endangered vs Threatened (2 marks)
  - (ii) Extinct vs Extant (2 marks)
  - (iii) Fatality vs Natality (2 marks)
- b) Explain the significance of growth of weeds in terms of succession (3 marks)
- c) Clarify the amenity value of nature to humanity using relevant examples (3 marks)
- d) State three features of the biosphere (3 marks)
- e) Highlight ways in which water moves from one store to another in the water cycle (3 marks)
- f) Construct a food chain consisting of five compartments (3 marks)
- g) Explain why the atmosphere does not play a significant part in the phosphorus cycle (3 marks)
- h) Summarize three major causes of environmental pollution (3 marks)

i) State the aims of Environmental Impact Assessment (3 marks)

**QUESTION TWO (20 MARKS)**

Discuss the nexus between human population growth and environmental impact (20 marks)

**QUESTION THREE (20 MARKS)**

Write an essay on the carbon cycle (20 marks)

**QUESTION FOUR (20 MARKS)**

Describe Kenya's rangeland resources (20 marks)