



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY

SCHOOL OF BIOLOGICAL AND PHYSICAL SCIENCES

**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN
BIOLOGICAL SCIENCES**

FOURTH YEAR FIRST SEMESTER 2018/2019 ACADEMIC YEAR

MAIN CAMPUS - REGULAR

COURSE CODE: SBI 3435
TITLE: ENVIRONMENTAL POLLUTION AND CONTROL
EXAM VENUE: STREAM: (BIO)
DATE: EXAM SESSION:
TIME: 2 HOURS

Instructions:

- 1. Answer ALL questions in Section A and Any two questions in Section B**
 - 2. Candidates are advised not to write on question paper**
 - 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**
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SECTION A: SHORT ANSWER QUESTIONS (30 Marks)

1. Define environmental pollution. Explain its relevance to undergraduate Biological Science students. (3 marks)
2. Outline the categories of environmental pollutants and give an example of each. (3 marks)
3. Differentiate between biological accumulation and magnification. (3 marks)
4. Define the term eutrophication. State three causes of eutrophication of aquatic ecosystems. (3 marks)
5. Describe the characteristics of chemical pollutants. (3 marks)
6. Outline three impacts of urbanization on water quality in freshwater aquatic ecosystems. (3 marks)
7. Pathogens are a dangerous cause of water quality deterioration. Explain. (3 marks)
8. Explain how would you monitor pollution in the environment. (3 marks)
9. Explain the role of the government departments involved in environmental pollution in Kenya. (3 marks)
10. Outline three examples of biological indicators of pollution. (3 marks)

SECTION B: ESSAY QUESTIONS (40 MARKS)

11. Write an essay on the relevance of environmental impact assessment in Kenya (20 marks)
12. Describe the processes involved in primary and secondary treatment of water. (20 marks)
13. Describe the causes and effects of marine pollution. (20 marks)
14. With relevant examples, explain approaches that the County Government of Siaya may adopt to control and manage different types of environmental pollution within its region. (20 marks)