



MAASAI MARA UNIVERSITY

REGULAR UNIVERSITY EXAMINATIONS 2017/2018 ACADEMIC YEAR FOURTH YEAR SECOND SEMESTER

SCHOOL OF TOURISM AND NATURAL RESOURCE MANAGEMENT BACHELOR OF SCIENCE IN ENVIRONMENTAL STUDIES (BIOLOGY AND HEALTH)

COURSE CODE: EBH 412 COURSE TITLE: POLLUTION PROCESSES IN TROPICAL ECOSYSTEMS

**DATE: 15TH APRIL, 2019
1630 HRS**

TIME: 1430 -

INSTRUCTIONS TO CANDIDATES

Answer ALL questions in section A and any other THREE in section B

This paper consists of 2 printed pages. Please turn over.

SECTION A: ANSWER ALL QUESTIONS (25 marks)

1. Explain the following terms:
 - a) Ecosystem simplification (2 marks)
 - b) Secondary air pollutant (2 marks)
 - c) Artificial wetland (2 marks)
2. Explain, with equations, the control of the following industrial air pollutants using hydrogen peroxide
 - a) NO_x (3 marks)
 - b) H₂S (3 marks)
3. Briefly explain:
 - a) Oxygen sag (5 marks)
 - b) Eutrophication (5 marks)
4. With a specific example, explain the use of animals as an indicator of pollution in an ecosystem (3 marks)

SECTION B: ANSWER ANY THREE QUESTIONS (45 marks)

5. a), With the aid of a diagram, explain greenhouse effect (7 marks).
 - b) Discuss the ways in which global warming is a threat to the tropical ecosystems (8 marks)
6. Discuss conventional wastewater treatment indicating how various pollutants are removed from municipal wastewater (15 marks)

7. Discuss the effects of acid precipitation on the soil and forest ecological ecosystems

(15 marks)

8. a) Define thermal pollution

(1 mark)

b) Explain three ways by which thermal pollution affects aquatic life

(6 marks)

c) Discuss four sources of thermal pollution to aquatic ecosystem

(8 marks)

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