



MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS
2018/2019 ACADEMIC YEAR
FIRST YEAR SECOND SEMESTER**

**SCHOOL OF TOURISM AND NATURAL
RESOURCE MANAGEMENT
DOCTOR OF PHILOSOPHY
IN ENVIRONMENTAL STUDIES**

COURSE CODE: SES 818 E

**COURSE TITLE: ECOLOGY OF FRESH AND
OTHER INLAND WATERS**

DATE: 4TH DECEMBER, 2018

TIME: 0830 – 1030 HRS

INSTRUCTIONS TO CANDIDATES

Answer **ALL** questions in section **A** and any other **THREE** in section **B**. Use **examples and illustrations where possible**

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

SECTION A (25 MARKS)

1. Speculate on what can cause fish kills in lakes, rivers, coastal waters and oceans? **(5 marks)**
2. With examples, briefly describe major groups of freshwater organisms in fresh water ecosystems **(5 marks)**
3. Discuss the distribution of inland water ecosystems in Narok County **(5 marks)**
4. Discuss five (5) bioindicators of chemical contaminants in inland water ecosystems? **(5 marks)**
5. Describe processes that can lead to phytoplankton blooms **(5 marks)**

SECTION B (45 MARKS)

6. Classify five (5) types of lakes using the origin of lakes as the mode of classification **(15 marks)**
7. On the basis of at least five criteria, describe the different classes in which rivers can be classified into **(15 marks)**
8. Discuss the significance of ponds as freshwater ecosystems **(15 marks)**
9. (i) Who has the mandate for freshwater ecosystems conservation in Kenya **(3 marks)**
(ii) Discuss conservation measures for freshwater ecosystems that have been taken by the above (i) said bod(ies)y **(12 marks)**
10. Discuss lake and pond zones as inland water ecosystems, hydrographic characteristics, physical characteristics as well as their flora and fauna **(15 marks)**
11. Discuss in detail the causes, effects and control measures of eutrophication **(15 marks)**

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