JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF AGRICULTURAL AND FOOD SCIENCES

THIRD YEAR FIRST SEMESTER UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE SOIL SCIENCE

2019/2020 ACADEMIC YEAR

REGULAR

COURSE CODE: ALS 3322
COURSE TITLE: WETLANDS SOIL MANAGEMENT
EXAM VENUE: **STREAM: BSc. Soil Science**
DATE: **EXAM SESSION:**

TIME: 2 HOURS

Instructions:

1. **Answer ALL questions in section A and ANY other 2 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.**

SECTION A [30 MARKS]

Answer ALL questions from this Section.

1. Define the following terminologies
    a. Hyroperiod (2 marks)
    b. Recharge wetland (2 marks)
    c. Marsh wetland (2 marks)
    d. Denitrification (2 marks)
2. Explain how bogs and fens are applied in management of wetlands (5 marks)
3. Discuss primary and secondary succession (6 marks)
4. discuss three critical factors that must exist for the soil to be classified as hydric soil (6 marks)
5. Outline the importance of wetlands (5 marks)

SECTION B [40 MARKS]

Answer ANY TWO questions from this Section.

6.
    a. Describe criteria used for classification of wetlands (10 marks)
    b. Describe how human activities are a threat to management of wetlands (10 marks)

7. With an aid of a diagram describe the hydrologic cycle (20 marks)
8.
    a. Describe the salient indicators for hydric soil for Non-sandy soils (10 marks)
    b. Discuss different ways in which wetlands can be conserved and preserved (10 marks)

9. Describe successional stages that occur in the aquatic environment hydrosphere (20marks)