



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY

SCHOOL OF AGRICULTURE AND FOOD SCIENCES

2016/2017 ACADEMIC YEAR

**3 YEAR 1ST SEMESTER UNIVERSITY EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE IN SOIL SCIENCE**

REGULAR

COURSE CODE: ALS 3322
COURSE TITLE: WETLAND SOIL MANAGEMENT
EXAM VENUE: STREAM: (BSC. SOIL SCIENCE)
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 (30MARKS)

1. State six factors that determines the kind of plants that grows in riparian wetland areas. (2 marks)
2. Briefly explain how Yala swamp is an important ecosystem. (4 marks)
3. In East Africa, , wetland can be classified based on environmental gradients, hydrological patterns, geology and soil mineral content, explain this statement. (5 marks)
4. Explain three important processes that brings about soil development. (3 marks)
5. Explain the differences between Recharge and discharge wetlands. (4 marks)
6. Briefly describe the following: a) Nitrogen cycling in wetlands, b) Vegetation succession in wetlands. (6 marks)
7. Describe three critical factors that must exist for the soil to be classified as hydric soil. (6 marks)

SECTION B: ESSAY QUESTIONS (40 MARKS)

1. A) While attending a conference on wetland soils, a 3rd year soil science student said, ‘Soil provides important clues to the past’. Discuss this statement. (10 marks)
B) Using a well labeled diagram, describe hydrological cycle. (10 marks)
2. Discuss indicators of Hydric soils. (20 marks)
3. Write an essay on management of hydric soils. (20 marks)