



JARAMOGI OGINGA ODONGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF SPATIAL PLANNING
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN
WATER RESOURCE AND ENVIRONMENTAL MANAGEMENT
SEMESTER 2022/2023 ACADEMIC YEAR

CENTRE: MAIN CAMPUS

COURSE CODE: PNB 1315

COURSE TITLE: WETLAND ECOLOGY AND CONSERVATION

EXAM VENUE:

STREAM: WATER RES & ENV MGT

DATE:

EXAM SESSION:

TIME: 2 HOURS

Instructions:

- 1. Answer question 1 (compulsory) and ANY other 2 questions.**
- 2. Candidates are advised not to write on the question paper.**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room.**

QUESTION ONE

- (a) Define wetlands according to the RAMSAR Convention on wetlands. What are characteristics that describe a wetland (5 marks)
- (b) What are the main wetland ecosystem services (5 marks)
- (c) Outline any **FIVE** major threats to wetlands (5 marks)
- (d) Explain any **FIVE** RAMSAR wetland sites in Kenya (5 marks)
- (e) Explain any **FIVE** hydrological functions of wetlands (5 marks)
- (f) Explain any **FIVE** structural adaptations of wetland plants (5 marks)

QUESTION TWO

Discuss role of wetlands on:

- (a) Ecology (6 marks)
- (b) Biodiversity (6 marks)
- (c) Livelihoods (8 marks)

QUESTION THREE

- (a) With examples discuss the major causes of wetland loss and degradation (12 marks)
- (b) Explain strategies you can employ to restore a degraded wetland (8 marks)

QUESTION FOUR

- (a) Explain the standard criteria used in identifying wetlands of international importance (6 marks)
- (b) With appropriate examples, illustrate types of wetlands (14 marks)

QUESTION FIVE

- (a) Explain the RAMSAR (1971) Convention on Wetlands (5 marks)
- (b) Discuss how the RAMSAR convention's "wise use" protocol enhances wetlands sustainable exploitation and conservation (15 marks)