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**JARAMOGI OGINGA ODINGA 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 2016/2017 ACADEMIC YEAR**

**CENTRE: MAIN CAMPUS**

**COURSE CODE: PWE 3316**

**COURSE TITLE: WETLAND ECOLOGY AND CONSERVATION**

**EXAM VENUE: STREAM: SPATIAL PLANNING**

**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

1. Disuses wetland hydrology (10 marks)
2. Discuss the classification of plants with respect to their probability of occurring in wetlands (10 marks)
3. Discuss the places where wetlands are likely to form. (10 marks)

# Question Two

1. Discuss any **FIVE** reasons why wetlands are important. (10 marks)
2. Discuss the four categories of marcophytes (10 marks)

# Question Three

1. Explain **FIVE** ways how animals are adapted to wetlands giving an example of such an animal. (10 marks)
2. Explain **FIVE** ways of achieving wise utilization of wetlands (10 marks)

# Question Four

1. What do you understand by the term Ramsar site? (2 marks)
2. Discuss group B Criteria for selecting Ramsar sites for conserving biological divsersity based on:
3. Criteria based on species and ecological communities (6 marks)
4. Specific criteria based on waterbirds (4 marks)
5. Discuss lake Naivasha as a Ramsar site (5 marks)

# Question Five

Half of the world’s wetlands have disappeared since 1990. Discuss the categories of mitigation measures that can be undertaken. (20 marks)