



# **MACHAKOS UNIVERSITY**

**University Examinations For 2021/2022 Academic Year**

**SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT**

**DEPARTMENT OF ENVIRONMENTAL SCIENCES**

**FIRST YEAR FIRST SEMESTER EXAMINATION FOR**

**MASTER OF ENVIRONMENTAL SCIENCE**

**ENS 810: INTEGRATED WATER RESOURCES MANAGEMENT**

**DATE:**

**TIME:**

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**INSTRUCTIONS:** Answer Question **ONE** and any other **THREE** Questions

**QUESTION ONE (15 MARKS)**

Discuss five factors contributing to increasing water demand and their potential impacts

**QUESTION TWO (15 MARKS)**

Critically evaluate Kenya's approach to Water Resources Management

**QUESTION THREE (15 MARKS)**

Discuss the fundamental steps in the water planning process which you would follow if you were given the task of preparing a water Master Plan for your home County

**QUESTION FOUR (15 MARKS)**

Explain the various components of the Hydrological Cycle and highlight possible human intervention areas for water supply development

**QUESTION FIVE (15 MARKS)**

Discuss the water treatment and conservation technologies as applied in Kenya and highlight the possible mitigation measures to the challenges encountered