



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF AGRICULTURAL AND FOOD SCIENCES
FIRST YEAR SECOND SEMESTER UNIVERSITY EXAMINATION FOR
B.SC. SOIL SCIENCE
2017/2018 ACADEMIC YEAR

COURSE CODE: ALS 3121

COURSE TITLE: WORLD OF WATER

EXAM VENUE:

GROUP: YEAR 3 SEMESTER 2

DATE:

EXAM SESSION: REGULAR

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. State any SIX Global Water Policy objectives **(6 Marks)**
2. Briefly describe the following terms as applied in the understanding of water and heat:
 - a) Specific Heat Capacity **(3 Marks)**
 - b) Ocean Acidification **(3 Marks)**
3. Using a labelled diagram, Differentiate between a confined and unconfined aquifer **(6 Marks)**
4. State any SIX functions/values of wetlands **(6 Marks)**
5. Distinguish between the following terms as they apply in water quality parameters:
 - c) Alkalinity and Salinity **(2 Marks)**
 - d) COD and BOD **(2 Marks)**
 - e) Turbidity and Hardness **(2 Marks)**

SECTION B [40 MARKS]

Answer ANY TWO questions from this Section.

6. Use a well labelled diagram to discuss how **surface water**, **groundwater** and **rainwater** are generated by the water cycle **(20 Marks)**
7. Discuss groundwater under the following themes: (i) Potential Threats to Groundwater; (ii) Groundwater Overuse and Depletion **(20 Marks)**
8. Discuss the FOUR major types of Water Pollution **(20 Marks)**
9. Describe the FIVE impacts of climate change on water **availability** and **water quality** in other sectors. **(20 Marks)**

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