



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2020/2021

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF ~~MASTER OF SCIENCE~~ ^{ENVIRONMENT}

(ENVIRONMENTAL SCIENCE ~~AND~~ EDUCATION)

EED 430: WATER RESOURCE EDUCATION

DATE: THURSDAY 20TH MAY 2021

TIME: 11.00 A.M. – 1.00 P.M.

INSTRUCTIONS

Answer Question One and any other THREE Questions

- Q.1 a) Distinguish between the following concepts:
- i) Water scarcity and water deficit (1 mark)
 - ii) Water demand and water security (1 mark)
- b) Explain briefly three processes through which wetlands purify water. (3 marks)
- c) Give six properties of water which make it significant to organisms living in the environment (3 marks)
- d) Using suitable examples explain briefly why you think “Water resources education” should be important to local communities in Kenya (5 marks)
- e) Explain briefly how bird species can be used to monitor water towers in Kenya (3 marks)
- f) Why is it necessary to allocate water to a wetland ecosystem when dividing water for other purposes? (3 marks)
- g) “Biogas technology can help the country to improve her water resources” in the current changing environment. Explain. (3 marks)
- h) State three Multilateral Environmental Agreements which Kenya has ratified and justify how they can contribute to conservation of water resources for future generations (3 marks)

- Q.2 Discuss three drainage basins in Kenya, explaining their current threats and how Environmental Education can save them for future generation (15 marks)
- Q.3 Discuss how “constructed wetlands” can be used in flood water management in an urban area. (15 marks)
- Q.4 Using a diagram describe how marine water and fresh water influences the distribution of plants in an estuary. (15 marks)
- Q.5 Explain the sources of nitrogen and phosphorous entering into a river and how they are recycled (15 marks)