



MACHAKOS UNIVERSITY

University Examinations for 2018/2019 Academic Year

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL SCIENCES

SECOND YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR IN ENVIRONMENTAL SCIENCES

ENS 245: ENVIRONMENTAL HYDROLOGY

DATE: 27/9/2019

TIME: 11.00-1.00 PM

INSTRUCTIONS:

Answer question ONE and any other TWO questions

QUESTION ONE

- a) Using an illustration, describe the components of the hydrological cycle (10 Marks)
- b) Briefly discuss any **FIVE** factors contributing to surface water pollution in Kenya (10 Marks)
- c) Discuss the significance of the water cycle in environmental management (10 Marks)

QUESTION TWO

Discuss the advantages of using groundwater in the socioeconomic development of your County (20 Marks)

QUESTION THREE

Suppose you have been appointed as an advisor to the Governor of your County regarding how to sustainably manage water resources in the County, give a detailed account of how to undertake the assignment (20 Marks)

QUESTION FOUR

Discuss any **FIVE** ways in which surface water is degraded and indicate mechanisms to deal with the degradation (20 Marks)

QUESTION FIVE

Discuss any **FOUR** ways in which a named hydrological hazard can be mitigated (20 Marks)