



KISII UNIVERSITY

UNIVERSITY EXAMINATIONS

**FOURTH YEAR EXAMINATION FOR THE AWARD OF THE DEGREE OF
BACHELOR OF ARTS IN GEOGRAPHY
SECOND SEMESTER, 2021/2022
(FEBRUARY - JUNE, 2022)**

GEOG 402: APPLIED HYDROLOGY

STREAM: Y4 S2

TIME: 2 HOURS

DAY:

DATE:

INSTRUCTIONS:

- 1. Do not write anything on this question paper.***
- 2. Answer Question ONE (Compulsory) and any other TWO Questions.***

QUESTION ONE

- Give a distinction between water balance and soil moisture [4marks]
- Explain the significance of the water balance cycle [6 marks]
- Describe three types of water sampling [9 marks]
- Citing relevant examples from your community, justify the necessity for water pollution monitoring [5 marks]
- Explain non-structural measures of flood management [6 marks]

QUESTION TWO

- Explain the characteristics which are regarded as water quality parameters [10 marks]
- Discuss some of the major pollution monitoring methods [10 marks]

QUESTION THREE

Water scarcity is being viewed as phenomenon of concern in matters of development. Discuss the view in relation to causes of water scarcity in any affected county in Kenya [20 marks]

QUESTION FOUR

- a. Explain the processes that water uses in its erosive processes [10 marks]
- b. Discuss some of the water conventional treatment methods that commonly used in Kenya [10 marks]

QUESTION FIVE

With reference to particular examples in Kenya, explain groundwater properties that determine its occurrence [20 marks]