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UNIVERSITY EXAMINATIONS 2023/2024

THIRD YEAR, SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR
OF EDUCATION ARTS

EGE 3350: CLIMATOLOGY AND METEOROLOGY

DATE: APRIL 2024

TIME: 2 HOURS

INSTRUCTIONS: Answer Question ONE and any other TWO questions.

QUESTION ONE (30 MARKS)

- a) Distinguish between the following concepts:
 - i. meteorology and climatology. (2 Marks)
 - ii. climate change and climate variability. (2 Marks)
- b) Describe the relationship between pressure gradient force and wind. (6 Marks)
- c) Describe any FIVE elements that aid in describing the climate of a place. (10 Marks)
- d) Examine the different scales of atmospheric motions. (10 Marks)

QUESTION TWO (20 MARKS)

- a) Examine the analytic approaches used in the study of climatology. (12 Marks)
- b) Discuss the significance of the troposphere on the biosphere. (8 Marks)



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QUESTION THREE (20 MARKS)

a) Assess the anthropogenic causes of climate change. (15 Marks)

b) Suggest any FIVE practical solutions that Kenyan government can adopt to mitigate climate change effects. (5 Marks)

QUESTION FOUR (20 MARKS)

Write short notes on the following concepts:

- a. Land and Sea breeze (7 Marks)
- b. Katabatic winds (3 Marks)
- c. Chinook winds (3 Marks)
- d. Mountain and Valley breeze (7 Marks)

QUESTION FIVE (20 MARKS)

Discuss the significance of climatology in the development of a nation. (20 Marks)



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