

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

EMBU CAMPUS

THIRD YEAR EXAMINATION FOR THE AWARD OF DEGREE
OF BACHELOR OF EDUCATION ARTS

GEOG 302: METEOROLOGY AND CLIMATOLOGY

STREAMS: BED (ARTS)Y3S1

TIME: 2 HOURS

DAY/DATE: TUESDAY 05/12/2017

8.30 A.M. – 10.30 A.M.

INSTRUCTIONS:

- ANSWER QUESTION ONE AND ANY OTHER TWO QUESTIONS
- USE EXAMPLES AND ILLUSTRATIONS WHERE NECESSARY TO CLARIFY YOUR ANSWERS

QUESTION ONE

Write concise notes on the following concepts as used in Meteorology and Climatology:

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|---------------------------------|-----------|
| (a) Hydrometeorology | [5 marks] |
| (b) Elements of climate | [4 marks] |
| (c) High and low pressure cells | [6 marks] |
| (d) Green-house gases | [7 marks] |
| (e) Radiation balance | [8 marks] |

QUESTION TWO

In view of the current climate change scenario, account for the need to protect different agro-ecological zones in Kenya and their respective livelihoods. [20 marks]

QUESTION THREE

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|---|------------|
| (a) Describe weather patterns of your home county while indicating how to measure any five elements of climate. | [10 marks] |
| (b) Briefly discuss, the extent to which Kenya's proximity to the Indian Ocean influences the local weather pattern and trends. | [10 marks] |

GEOG 302

QUESTION FOUR

With the aid of appropriate examples describe how Kenya's varied climate conditions has influenced the socio-economic set-up of different communities across the country. [20 marks]

QUESTION FIVE

- (a) With illustration, justify the variations in the structure of the atmosphere. [8 marks]
 - (b) Discuss the extent to which man is successful in cloud and precipitation modification while commenting on the future of this practice. [12 marks]
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