



*(Knowledge for Development)*

**KIBABII UNIVERSITY**  
**UNIVERSITY EXAMINATIONS**  
**2021 / 2022 ACADEMIC YEAR**

**SECOND YEAR 1ST SEMESTER**  
**MAIN EXAMINATIONS**

**FOR THE DEGREE OF BACHELOR OF SCIENCE AGRICULTURE AND  
BIOTECHNOLOGY & BACHELOR OF EDUCATION SCIENCE**

**COURSE CODE:** AAG 231/SAB 231

**COURSE TITLE:** AGRICLIMATOLOGY

**DATE:** 4<sup>TH</sup> FEBRUARY 2022

**TIME:** 8 – 10 AM

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**INSTRUCTIONS TO CANDIDATES**

Answer Question ONE and any other TWO Questions.

TIME: 2 Hours

This paper consists of 2 printed pages. Please Turn Over 

KIBU observes ZERO tolerance to examination cheating

1. (a) List five resolutions reached at the United Nations Climate Change Conference, commonly referred to as COP26, held at the SEC Centre in Glasgow, Scotland, United Kingdom, from 31<sup>st</sup> October to 12<sup>th</sup> November 2021. (5 marks)

(b) Define the following terms with respect to Agriculmatology: -

(i) Extreme weather event

(ii) Carbon footprint

(iii) Climate change

(iv) Ecosystem

(v) Low-carbon

(5 marks)

(c) Describe the recommended equipment installation for air temperature monitoring under tropical weather conditions (5 marks)

(d) List five distinct features of climate smart agriculture (5 marks)

(e) State how plants adjust to survive in semi-arid conditions (5 marks)

(f) State five legislations aimed at environmental protection in Kenya (5 marks)

2. Discuss the relationship between agroecological zoning and crop and livestock planning in Kenya, giving relevant examples. (20 marks)

3. Kenya has a national policy that aims to protect the environment by maintaining forest cover at 10%. Explain why this has not been achieved and highlight the best management practices (BMPs) recommended in forest management. (20 marks)

4. Explain the mitigation measures against climate change to ensure sustained economic development and poverty reduction efforts in Kenya. (20 marks)

5. With specific reference to case studies in Kenya, explain how meteorological factors can be modified to benefit agricultural production. (20 marks)