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KIBABII UNIVERSITY

UNIVERSITY EXAMINATION

ACADEMIC YEAR 2021 /2022

FOURTH YEAR FIRST SEMESTER MAIN EXAMINATIONS

BACHELOR OF EDUCATION ARTS

COURSE CODE: GEO 421

COURSE TITLE: CLIMATOLOGY

DATE: MAY 23, 2022

TIME: 2 – 4 PM

DURATION: 2HOURS

INSTRUCTIONS TO CANDIDATES

ANSWER **ALL** QUESTIONS IN SECTION (A) AND ANY OTHER TWO QUESTIONS IN SECTION (B)

▶ **KIBU OBSERVES ZERO TOLERANCE TO EXAMINATION CHEATING**

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Kibabii University ISO 9001:2015 Certified
Knowledge for Development

SECTION A (compulsory questions)

1. a. Explain any two similarities and two differences between climate and weather. (8 marks)
- b. Distinguish between the following concepts as applied in climate studies (4 marks)
 - i. Desertification and drought (4 marks)
 - ii. Absolute humidity and relative humidity (4 marks)
 - iii. Advection and convection (4 marks)
- c. Explain the different ways in which the plants exchange energy and mass with the atmosphere in the context of geophysical systems. (10 marks)

SECTION B (Optional Questions)

2. Explain the role of oceans in:
 - a. Precipitation formation (6 marks)
 - b. Atmospheric temperature moderation (6 marks)
 - c. Creation of winds (8 marks)
3. Describe any two global latitudinal atmospheric circulation cells and explain the processes involved in their formation. (20 marks)
4. Discuss any five physical causes of aridity in Africa. (20 marks)
5. Discuss the potential impacts of climate change on:
Either
Agriculture in East Africa (20 marks)
Or
Global energy production, demand and distribution (20 marks)