

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE

NARE 331: PHYSICAL AND APPLIED CLIMATOLOGY

STREAMS: BSC

TIME: 2 HOURS

DAY/DATE: WEDNESDAY 30/08/2023

11.30 A.M. – 1.30 P.M

INSTRUCTIONS:

SECTION A: 30 MARKS

1. Discuss the physical features that affect climate (5 marks)
2. Outline the layers of atmosphere (5 marks)
3. Briefly discuss the ecological significance of temperature on vegetation (5 marks)
4. State the characteristics of rainfall temporal spatial variations (5 marks)
5. Relate air density and leaf boundary layer microclimate effects (5 marks)
6. List five requirements of weather instruments (5 marks)

SECTION B: 40 marks

6. Discuss the climatological aspects of lower atmosphere and upper air that affect natural resources productivity (10 marks)
 - 6b. Discuss the instrumentation and measurement of each aspect mentioned in 6 a. (10 marks)
 7. Discuss the scope of climatology and related/ interdependent disciplines (20 marks)
 8. Discuss the water budget equation; that is, all water into and out from a system (20 marks)
-