



UNIVERSITY OF EMBU

2017/2018 ACADEMIC YEAR

SECOND SEMESTER EXAMINATIONS

**SECOND YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE
(ENVIRONMENTAL CONSERVATION AND NATURAL RESOURCE MANAGEMENT)**

SBE 202: WEATHER AND CLIMATE

DATE: APRIL 5, 2018

TIME: 8:30-10:30 AM

INSTRUCTIONS:

ANSWER ANY TEN (10) QUESTIONS (7 MARKS EACH)

1. Illustrate the occurrence of the Green House effect on the earth's atmosphere
2. Explain the Köppen Climate Classification System.
3. Describe any seven climate zones in Africa.
4. Briefly discuss any three fundamental forces that affect atmospheric motions.
5. Discuss any three monsoons of the world.
6. Describe Albedo and its influencing factors on the African continent.
7. Describe the effects of the onset of sea breezes on any three (3) meteorological parameters.
8. Briefly discuss desertification in Africa during the last 100 years.
9. State seven different upslope and downslope wind movements that are associated with different times of day and the prevailing climatic and geographical factors.
10. Explain the growth and the phase transition mechanisms of the Elnino and Southern Oscillation (ENSO).
11. Describe three conditions for the formation of tropical cyclones.
12. Explain General Circulation Models (GCMs) and their application in atmospheric studies.

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