

UGANDA MARTYRS' UNIVERSITY
FACULTY OF EDUCATION
BAED III: SEMESTER ONE EXAMS, 2023/2024
GEO 3101: ADVANCED CLIMATOLOGY

DATE: 15/12/2023

DURATION: 3 HOURS

TIME: 2:00- 5:00PM

Instruction:

- *Attempt any four questions in total*
 - *Maps, diagrams and illustrations should be used wherever appropriate*
 - *Do not write anything on the question paper*
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1. "The Earth's atmospheric general circulation varies from year to year, but the large-scale structure of its circulation remains fairly constant". Examine general circulation of the atmosphere as used in advanced climatology

(25 marks)

2. Discuss the Earth-Atmosphere Energy Balance as used in advanced climatological studies
(25 marks)

3a). Account for the continued Ozone depletion in any one country in the world. **(12 marks)**

3b). Examine the mitigation measures that have been put in place to minimize ozone depletion in the country chosen in (a) above. **(13 marks)**

4. With aids of diagrams, examine the hydrological cycle model and show its impact on climate of East Africa. **(25 marks)**

5. Discuss the influence of weather forecasting on different sectors of the economy in any one country in East Africa. **(25 marks)**

6. Examine the causes and effects of pollution in East Africa **(25 marks)**

7. "Earth is warming up, and humans are at least partially to blame. The causes, effects, and complexities of global warming are important to understand so that we can fight for the health of our planet" Elucidate . **(25 marks)**

END