



**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

**UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR,
1ST YEAR SECOND SEMESTER, EXAMINATION
(MAIN EXAM)**

MASTER OF ARTS IN GEOGRAPHY

COURSE CODE: GEO 815

COURSE TITLE: ADVANCED CLIMATOLOGY

DATE: Tuesday 26th April, 2022

TIME: 9:00-12:00 PM

INSTRUCTIONS TO CANDIDATES

- Answer question ONE and any other THREE questions
- Use illustrations wherever appropriate.

MMUST observes ZERO tolerance to examination cheating

1. Elucidate how carbon can be sequestered as a measure of reducing its levels in the atmosphere. (15 Marks).
2. 'Direction and speed of wind is a function of pressure gradient force, coriolis effect and frictional force'. Discuss. (15 Marks).
3. Explain the chemical processes involved in the ozone layer formation and depletion and indicate the consequences that result due to the depletion of this layer. (15 Marks).
4. Discuss the factors that influence the urban heat islands. (15 Marks).
5. Examine the current scientific technological processes that re being utilized in the modification of microclimates. (15 Marks).
6. Discuss the strategies currently in use to achieve climate change mitigations and adaptations. (15 Marks).