

**MAASAI MARA UNVERSITY**

**REGULAR UNIVERSITY EXAMINATIONS**

**2016/2017 ACADEMIC YEAR**

**THIRD YEAR FIRST SEMESTER**

**SCHOOL OF TOURISM & NATURAL RESOURCES MANAGEMENT**

**BACHEOR OF ARTS IN GEOGRAPHY AND BACHELOR OF EDUCATION (ARTS)**

**COURSE CODE: GEO 301**

**COURSE TITLE: CLIMATOLOGY**

**DATE: 2ND FEBRUARY, 2017 TIME: 2.30 – 4.30 PM**

**INSTRUCTIONS TO CANDIDATES**

* Answer question **ONE** and any other **THREE** questions.
* Use illustrations where appropriate

This paper consists of 2 printed pages. Please turn over

**SECTION A: ANSWER ALL QUESTIONS**

Q1.

1. Differentiate between macroclimate and microclimate **(5 marks)**
2. Account for the composition of the electromagnetic spectrum

**(5 marks)**

1. Distinguish between desertification and drought **(5 marks)**
2. Identify and briefly explain the two physical laws that govern the motion of sea breeze **(5 marks)**
3. Define the following terms:
4. -Albedo **(1 mark)**
5. -diffuse reflection **(2 marks)**
6. -insolation **(2 marks)**

**SECTION B: ANSWER ANY THREE**

Q2. Discuss the layers of the atmosphere and their importance to climate

**(15 marks)**

Q3. Explain the causes of global climate change **(15 marks)**

Q4. Describe the greenhouse effect on the atmosphere **(15 marks)**

Q5. Explain reasons for variations in solar energy reception between land and water surfaces **(15 marks)**

Q6. Illustrate the major processes of heat transfer in the atmosphere

**(15 marks)**

Q7. Discuss the causes of desertification in Sub Saharan Africa **(15 marks)**

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