

## **GARISSA UNIVERSITY**

# UNIVERSITY EXAMINATION 2017/2018 ACADEMIC YEAR ONE SECOND SEMESTER EXAMINATION

SCHOOL OF EDUCATION, ARTS AND SOCIAL SCIENCES

FOR THE DEGREE OF BACHELOR OF EDUCATION (ARTS)

COURSE CODE: GEO 120 / GEO 110

COURSE TITLE: INTRODUCTION TO EARTH PHYSICAL ENVIRONMENT

**EXAMINATION DURATION: 3 HOURS** 

DATE: 07/12/17 TIME: 09.00-12.00 PM

#### INSTRUCTION TO CANDIDATES

- The examination has SIX (6) questions
- Question ONE (1) is COMPULSORY
- Choose any other THREE (3) questions from the remaining FIVE (5) questions
- Use sketch diagrams to illustrate your answer whenever necessary
- Do not carry mobile phones or any other written materials in examination room
- Do not write on this paper

This paper consists of TWO (2) printed pages

please turn over

#### **QUESTION ONE (COMPULSORY)**

(a) With the aid of a diagram, describe the structure of the atmosphere. [15 marks]

(b) Discuss the five themes of geography. [10 marks]

#### **QUESTION TWO**

(a) Describe the components of the biosphere [9 marks]

(b) Explain any three forces that control the velocity and direction of the wind. [6 marks]

#### **QUESTION THREE**

(a) Outline the classification of air masses. [5 marks]

(b) Describe any two types of fronts. [10 marks]

### **QUESTION FOUR**

(a) Using a well-labeled diagram, describe the formation of the following types of fog. [9 marks]

i. Radiation fog

ii. Advection fog

(b) Differentiate between the following features. [6 marks]

i. Tornadoes and thunderstorms

ii. Anticyclone and cyclones

#### **QUESTION FIVE**

(a) Briefly describe the following phenomena. [3 marks]

i. Aphelion

ii. Perihelion

(b) Describe energy flow in ecosystems. [4 marks]

(c) Discuss the two theories that explain the origin of plate tectonics. [8 marks]

#### **QUESTION SIX**

Productivity of the ecosystem varies over space and time. Discuss the any factors that influence ecosystem productivity. [15 marks]