ORDINARY LEVEL NATIONAL EXAMINATIONS, 2017

SUBJECT: GEOGRAPHY

PAPER I: PHYSICAL GEOGRAPHY

DURATION: 3 HOURS

INSTRUCTIONS:

1. Write your names and index number on as they on the answer booklet as written on your registration form and DO NOT write your names and index number on additional answer sheets of paper if provided.

2. Do not open this question paper until you are told to do so.

3. This paper has THREE sections: A, B and C.

   **SECTION A:** Attempt all question.  
   **SECTION B:** Attempt any THREE questions  
   **SECTION C:** Attempt only ONE question.

4. Use a blue or black pen.
SECTION A: Attempt all questions (55 marks)

1) Differentiate between "galaxy" and "constellation." [2 marks]

2) State three factors that determine the shape of the earth. [3 marks]

3) Briefly describe the characteristics of the oceanic crust. [3 marks]

4) With the aid of a diagram, explain how the solar eclipse occurs. [4 marks]

5) Explain what is meant by the terms:
   a) Global warming. [2 marks]
   b) Relative humidity. [2 marks]

6) a) i) Why is the Stevenson screen painted white?
   b) Differentiate between climate and weather. [1 mark]
   ii) Why does the screen in 6 a) i) above have louvers? [1 mark]

7) Explain how the following features are formed:
   a) Escarpment [3 marks]
   b) Tilt block [3 marks]

8) Describe two ways in which tilting influences the drainage patterns. [2 marks]

9) Name three important gases in the earth's atmosphere. [3 marks]

10. Briefly explain the three processes below that make up the water cycle:
   a) Surface Runoff. [2 marks]
   b) Infiltration [2 marks]
   c) Transpiration [2 marks]

11) a) Describe two main causes of flooding. [2 marks]
    b) Describe four characteristics of desert soils. [4 marks]

12) a) Describe the characteristics of ingenious rocks. [2 marks]
    b) Explain the effects of drainage in an area. [4 marks]

13 a) Describe the characteristics of topographical maps. [3 marks]
     b) How do hachures show relief features on a topographical map. [3 marks]

SECTION B: Attempt any three questions (30 marks)

14) With the aid of a well-labelled diagram, explain the structure of the earth's atmosphere. [10 marks]

15) a) Describe the formation of the following two deposition features found in the lower stage of a river:
    (i) Meander [3 marks]
    (ii) Ox-bow lake [3 marks]
    b) Explain the significance of rivers on development. [4 marks]

16) a) Briefly describe the characteristics of savanna climate. [5 marks]
     b) Explain the significance of savanna vegetation to man. [5 marks]
17) a) Explain three determinants of weathering.  
   b) Distinguish between weathering and erosion.  
   18) Discuss the significance of folding to man.  
   
SECTION C:
Teacher's guidance.

2017 GEOGRAPHY PAPER 1 ANSWER KEY

1. A galaxy is a giant family of billions of stars, dust, gases in the sky held together by the forces of gravity. Constellation is a group of celestial bodies (stars) that form a pattern in the sky.

2. - Forces of gravity which pull everything to the center.
   - Centripetal force
   - Centrifugal force
   - Rotation of the earth.

3. - It has dense rocks
   - Its composed of silica and magnesium (SIMA)
   - Has dark colored rocks
   - Composed of basaltic rocks
   - Forms the oceanic bed
   - It is thinner
   - It is a young crust
   - It is subdivided under the continental crust
   - It covers the largest part of the earth crust (60 – 70%)

4. A solar eclipse occurs when the moon passes between the sun and the earth and blocks the sun’s rays from reaching the earth.

5. a) Global warming is the gradual increase in temperature of the earth’s atmosphere as a result of green house effect.
   b) Relative humidity is the ratio of the amount of water vapour present in a given volume of air at a particular temperature and maximum amount of water vapour that air can hold at the same temperature.
   \[
   R.H = \frac{\text{Actual vapour density}}{\text{Saturation vapour density}} \times 100
   \]

6. a) i) The white color helps to reflect the sun’s light from reaching inside the screen.
   ii) For free circulation of air.

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