

Geography 1

004

04 Nov.2011 13.30pm – 16.30pm

REPUBLIC OF RWANDA



RWANDA EDUCATION BOARD (REB)
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ORDINARY LEVEL NATIONAL EXAMINATION 2011

SUBJECT : GEOGRAPHY

PAPER I : PHYSICAL GEOGRAPHY

DURATION : 3 HOURS

INSTRUCTIONS :

This paper consists of THREE Sections A, B and C.

Answer **ALL** questions in section A. **(55 marks)**

Answer **THREE** questions in section B. **(30 marks)**

Answer **one** question in section C. **(15 marks)**

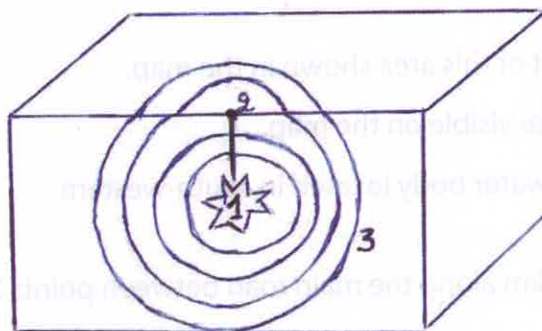
SECTION A: Attempt all questions**(55 marks)**

1. a) Give the cause of unequal days and nights on earth. **(1 mark)**
b) Explain the unequal distribution of heat on earth. **(1 mark)**
2. What time will it be at a place 45° west of Kigali when it is 10:00 a.m in Kigali? **(2 marks)**
3. The solar system is formed by different types of celestial bodies
a) Give three distinctive features of the earth compared to other planets of the solar system. **(3 marks)**
b) What shows that the earth is not a perfect sphere? **(1 mark)**
4. a) Give the definition of altitude. **(1 mark)**
b) Name the lines joining points of the same height. **(1 mark)**
c) Give 4 advantages of the relief of Rwanda to its population. **(2 marks)**
5. a) Name the different types of rain according to their origin? **(3 marks)**
b) Give the form of precipitation that falls mostly in winter in temperate zones. **(1 mark)**
c) Explain the presence of the Kalahari Desert. **(1 mark)**
d) Name the winds that blow from the tropics to the equator. **(1 mark)**
6. Rocks can be classified into three basic categories :
sedimentary, volcanic and metamorphic rocks.
a) Fill in the table below indicating the category to which each of the following rocks belong: gneiss, basalt, coal, limestone. **(4 marks)**
- | Volcanic rocks | Sedimentary rocks | Metamorphic rock |
|----------------|-------------------|------------------|
| | | |
| | | |
- b) Give 2 aspects that explain the importance of sedimentary rocks. **(2 marks)**
7. a) Give the definition of a fault and illustrate your answer with a sketch. **(2 marks)**
b) Name the recessed portion and the raised part of a fault. **(1 mark)**
c) Give 2 geographic phenomena that appear in the regions of faulting. **(2 marks)**
d) Name the two major faults found in East Africa. **(2 marks)**
8. a) Name the topographic (physiographic) regions that form the relief of Rwanda. **(5 marks)**
b) Give reasons for the formation of the relief regions mentioned in (a) above. **(2 marks)**
9. a) Give the various agents of erosion. **(2 marks)**
b) Give the area where each of these agents are most active in Rwanda. **(2 marks)**

10. Give 5 factors that influence the variation of temperature of a given area. (5 marks)
11. a) The volcanic zone of Rwanda receives heavy rainfall, yet it has no rivers, explain. (2 marks)
- b) Give the source of Mukungwa river. (1 mark)
- c) Name the region of Rwanda which receives the lowest rainfall and explain how the population of this region can solve the problem of insufficient rainfall. (2 marks)
12. a) Name two lava dammed lakes in Rwanda and describe how they were formed. (2 marks)
- b) Name the sea that separates Africa from Europe. (1 mark)

Section B: Attempt 3 questions of your choice (30 marks)

13. a) Explain what you understand by the term humidity and name the instrument used to measure it. (2 marks)
- b) What climatic factor determines the seasons in the temperate Zone? (2 marks)
- c) What are the elements of climate that determine the various climatic regions? (2 marks)
- d) Explain why rainfall is abundant in the equatorial zone. (2 marks)
- e) Mention the wettest regions in the temperate zone and explain why they receive much rainfall. (2 marks)
14. a) Name 3 districts in Rwanda that have volcanic soils. (3 marks)
- b) Give and explain the different techniques used to protect the soil in Rwanda. (7 marks)
15. a) Give 4 uses of vegetation. (4 marks)
- b) Explain the factors that most influence the vegetation of a region. (2 marks)
- c) Give the climatic zone in which each of the following types of vegetation is found: savanna, taiga, tundra and maquis. (4 marks)
16. Consider this earthquake sketch and answer the following questions:



- a) Name the points shown by 1, 2 and the lines shown by 3. (3 marks)
- b) Name the instrument used to measure earthquake. (1 mark)
- c) What is the role of the Richter scale? (2 marks)
- d) How can people protect themselves against effects of an Earthquake in progress? (2 marks)
- e) Give the African region most subjected to earthquakes and give reasons for this phenomenon. (2 marks)

17. a) Name the place through which a river enters the sea. (1 mark)
 b) Name the part of river located towards the source. (1 mark)
 c) In which basin is Rwanda included? (2 marks)
 d) Give an African river that enters the sea and forms : (2 marks)
 i) a delta
 ii) an estuary
 e) Explain the importance of rivers. (4 marks)

18. Examine the sketch map of United States of America below and answer the questions that follow.



- a) Name the forms of relief shown by numbers 1, 2, 3 and give the economic importance of each form of relief. (3 marks)
 b) What is the river that drains this relief? (1 mark)
 c) Name countries bordering USA to the north and to the south. (2 marks)
 d) Name the lakes shown by number 4, 5 and 6. (3 marks)
 e) Give the location of Niagara Falls. (1 mark)

Section C: Attempt 1 question of your choice (15 marks)

19. Study the Topographic map extract of Bwishyura provided and answer the questions that follow;

- a. i) Name the current district of this area shown in the map. (1 mark)
 ii) Give the name of the lake visible on the map. (1 mark)
 b. i) Calculate the area of the water body located in south-western part of the map. (2 marks)
 ii) Calculate the distance in km along the main road between points X and Y. (2 marks)
 c. i) Name the part of the map which has the highest altitude and give its height. (2 marks)
 ii) What is the vertical interval between the contour lines? (1 mark)

SCALE 1:25,000

	Main tarmac road <i>Route nationale asphaltée</i>		Dense/nucleated settlement, sparse, scattered <i>Habitat concentré, dispersé, remarquable</i>		Lake, swamp <i>Lac, marais</i>
	Main murrum road <i>Route nationale non asphaltée</i>		Hospital, health centre, dispensary <i>Hôpital, centre de santé, dispensaire</i>		Falls, dam <i>Chutes, barrage</i>
	Feeder road <i>Route communal</i>		Sectorial bureau, school, dipping tank <i>Bureau de secieur, école, dipping tank</i>		Water channel/canal <i>Conduit d'eau</i>
	Track <i>Piste carrossable</i>		Religious edifices: church, temple, mosque <i>Edifices religieux: église, temple, mosquée</i>		Borehole, water tank <i>Source d'eau aménagée, château d'eau</i>
	Path <i>Sentier</i>		Border post, market <i>Poste de douane, marché</i>		Natural forest, plantation/artificial forest <i>Forêt naturelle, boisement</i>
	Boulevard/road lined with trees <i>Route bordée d'arbres</i>		International airport, aerodrome/air strip <i>Aéroport international, aérodrome</i>		Savannah or pasture, humid savannah <i>Savane ou pâturage, savane humide</i>
	Road under construction <i>Route en construction</i>		River <i>Rivière</i>		Upland crops, valley crops <i>Cultures des collines, cultures de fond de vallée</i>
	Power/electric line <i>Ligne de transport d'énergie électrique</i>		Pond, marsh, a well <i>Étang, mare, puits</i>		Rangeland, cash crops <i>Prairie, cultures industrielles</i>
	Bridge, footbridge <i>Pont en dur, pont en bois</i>		Valley <i>Talweg</i>		Papyrus <i>Papyrus</i>
	Contours <i>Courbe de niveau</i>		Rock, cliff <i>Rocher, abrupt</i>		Bananas, sugar cane, coffee <i>Banancier, canne à sucre, café</i>
	Contours, contour intervals, depression <i>Courbe de niveau, intervalles, cuvette</i>		Trigonometrical pillar <i>Détail particulier</i>		Rice, tea, cotton <i>Riz, thé, coton</i>
	Mine 1 operational 2 derelict <i>Mine 1 en activité 2 arrêtée</i>		Border pillar, radio booster station <i>Borne frontière, antenne relais de radio</i>		Quinine, pyrethrum, bamboo <i>Quinquina, pyrèthre, bambou</i>
	Quarry, factory and/or industrial complex <i>Carrière, usine et/ou complexe industriel</i>		Spot height <i>Point coté</i>		Terraces <i>Talus</i>

20. Study the photograph provided and answer the questions that follow:

(15 Marks)



- a) Identify the economic activities likely to be taking place in the area covered by the photo. **(3 marks)**
- b) Name the animals shown in the photo. **(1 mark)**
- c) Name any 2 districts in Rwanda where this photo might have been taken and explain why you have selected them. **(3 marks)**
- d) What kind of problems are the animals shown in the photo likely to face? **(3 marks)**
- e) Name the man-made feature shown in the photo. **(1 mark)**
- f) Give three problems that people living near this region are likely to face. **(3 marks)**
- g) Name the type of vegetation that the animals shown in the photo survive in most. **(1 mark)**

