

Geography and  
Environment I

005

31/07/2023 08:30 AM – 11:30 AM



ORDINARY LEVEL NATIONAL EXAMINATIONS, 2022-2023

SUBJECT: GEOGRAPHY AND ENVIRONMENT I

PAPER I: PHYSICAL GEOGRAPHY

DURATION: 3 HOURS

INSTRUCTIONS:

- 1) Do not open this question paper until you are told to do so.
- 2) Write your names and index number as they appear on your registration form and **DO NOT** write your names and index number on additional answer sheets if provided.
- 3) This paper consists of **THREE** sections: **A, B** and **C**.

**SECTION A:** This section is compulsory. (60 marks)

**SECTION B:** Attempt any **TWO** questions. (30 marks)

**SECTION C:** This section is compulsory. (10 marks)

- 4) Use a **blue** or **black** pen.

**SECTION A: Attempt all questions. (60 marks)**

- 1) List any four effects of the earth's rotation. **(4 marks)**
- 2) a) Name two discontinuities available in the internal structure of the earth. **(2 marks)**  
b) Name any three main parts of the external structure of the earth. **(3 marks)**
- 3) a) Give any two characteristics of igneous rocks. **(2 marks)**  
b) Explain how sedimentary rocks are formed. **(2 marks)**
- 4) a) What is weather forecasting? **(2 marks)**  
b) Give any four elements of weather. **(4 marks)**
- 5) Give any three characteristics of mangrove vegetation. **(3 marks)**
- 6) Name any four outlet rivers in Africa. **(4 marks)**

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river

7) Explain how the following agents cause soil erosion.

a) Heavy rainfall

(2 marks)

b) Steep slopes

(2 marks)

c) Winds

(2 marks)

8) Explain any three factors that affect soil formation.

(6 marks)

9) Identify any four characteristics of birunga forests.

(4 marks)

10) a) What is a Stevenson screen?

(2 marks)

b) State any three qualities of a Stevenson screen.

(3 marks)

— light  
— it would not

11) Differentiate between active and dormant volcanoes and give an example of each.

(4 marks)

12) Mention any five characteristics of equatorial climate.

(5 marks)

Briefly evaluate the impact of pollution to human beings and their surroundings.

(4 marks)

**SECTION B: Attempt any two questions. (30 marks)**

14) Discuss the measures that are put in place to conserve the environment.

**(15 marks)**

15) Propose the measures that should be taken to minimize the spread of aridity and desertification.

**(15 marks)**

16) a) i) What is meant by lava damming?

**(2 marks)**

ii) Name two lava dammed lakes in Rwanda.

**(2 marks)**

b) Why do most rivers of Rwanda flow Eastwards?

**(3 marks)**

c) Explain the effects of the river reversal in Rwanda.

**(4 marks)**

d) List any four African rift valley lakes.

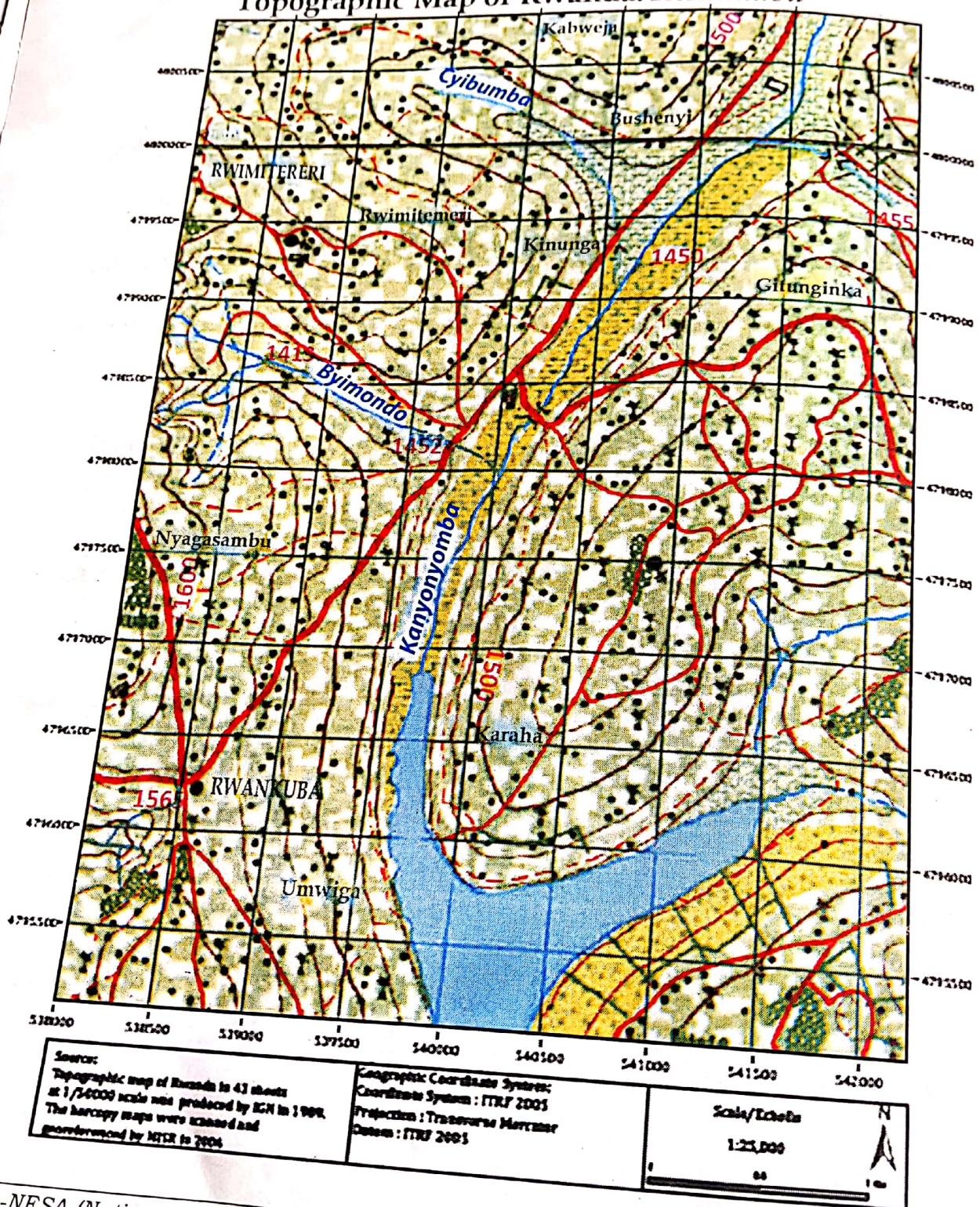
**(4 marks)**



SECTION C: This question on map work is compulsory (10 marks)

17) Study the map of Rwankuba 1:25000 provided and answer the questions that follow.

Topographic Map of Rwanda: Rwankuba





SCALE/ECHELLE 1:25,000



	<b>Main tarmac road</b> Route nationale asphaltée		<b>Dense/nucleated settlement</b> Habitat concentré		<b>Natural forest, plantation</b> Forêt naturelle, boisement
	<b>Main murrum road</b> Route nationale non asphaltée		<b>Sparse, scattered</b> Dispence, remarquable		<b>Savannah or pasture</b> Savane ou pâturage
	<b>Feeder road</b> Route communal		<b>Hospital, health centre, dispensary</b> Hopital, centre de santé, dispensaire		<b>Upland crops, valley crops</b> Cultures des collines
	<b>Track</b> Piste carrossable		<b>Sectorial bureau, school, dipping tank</b> Bureau de secteur, école, dipping tank		<b>Rangeland, cash crop</b> Prairie, cultures industrielles
	<b>Path</b> Sentier		<b>Religious edifices: church, temple, mosque</b> Edifices religieux: église, temple, mosquée		<b>Papyrus</b>
	<b>Boulevard/road lined with trees</b> Route bordée d'arbres		<b>Border post, market</b> Post de douane, marché		<b>Bananas, sugar cane, coffee</b> Banancier, canne à sucre, café
	<b>Road under construction</b> Route en construction		<b>International airport, aerodrome/air strip</b> Aéroport international, aérodrôme		<b>Rice, tea, cotton</b> Riz, thé, coton
	<b>Power/electric line</b> Ligne de transport d'énergie électrique		<b>River</b> Rivière		<b>Quinine, pyrethrum, bamboo</b> Quinquina, pyrèthre, bambou
	<b>Bridge, footbridge</b> Pont en dur, pont en bois		<b>Pond, marsh, a well</b> Etang, marc, puits		<b>Terraces</b> Talus
	<b>Contours</b> Courbe de niveau		<b>Lake, swamp</b> Lac, marais		<b>Rock, Cliff</b> Rocher, abrupt
	<b>Contours, contour intervals, depression</b> Courbe de niveau, intercalaires, cuvette		<b>Falls, dam</b> Chutes, barrage		<b>Trigonometrical pillar</b> Détail particulier
	<b>Quarry, factory and/or industrial complex</b> Carrière, usine et/ou complexe industriel		<b>Border pillar, radio booster station</b> Borne frontière, antenne relais de radio		<b>Mine 1 operational 2 derelict</b> Mine 1 activée 2 arrêtée

a) Identify the drainage patterns shown in the map.

**(2 marks)**

b) Show the highest and the lowest altitude of the area covered by the map.

**(2 marks)**

c) Show three main activities that are shown in the map and justify each activity.

**(6 marks)**

**END**