

# Geography III

## 023

01/08/2022 8:30 AM – 11:30 AM



### ADVANCED LEVEL NATIONAL EXAMINATIONS, 2021-2022

## SUBJECT: GEOGRAPHY III

### PAPER III: PHYSICAL GEOGRAPHY

**DURATION: 3 HOURS**

#### COMBINATIONS:

- HISTORY–ECONOMICS- GEOGRAPHY (**HEG**)
- MATHEMATICS –ECONOMICS- GEOGRAPHY (**MEG**)
- MATHEMATICS –PHYSICS – GEOGRAPHY (**MPG**)
- BIOLOGY-CHEMISTRY- GEOGRAPHY (**BCG**)
- LITERATURE-ECONOMICS- GEOGRAPHY (**LEG**)
- HISTORY- GEOGRAPHY- LITERATURE (**HGL**)

#### 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. **(55 marks)**

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

**SECTION C:** Attempt any **ONE** question. **(15 marks)**

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

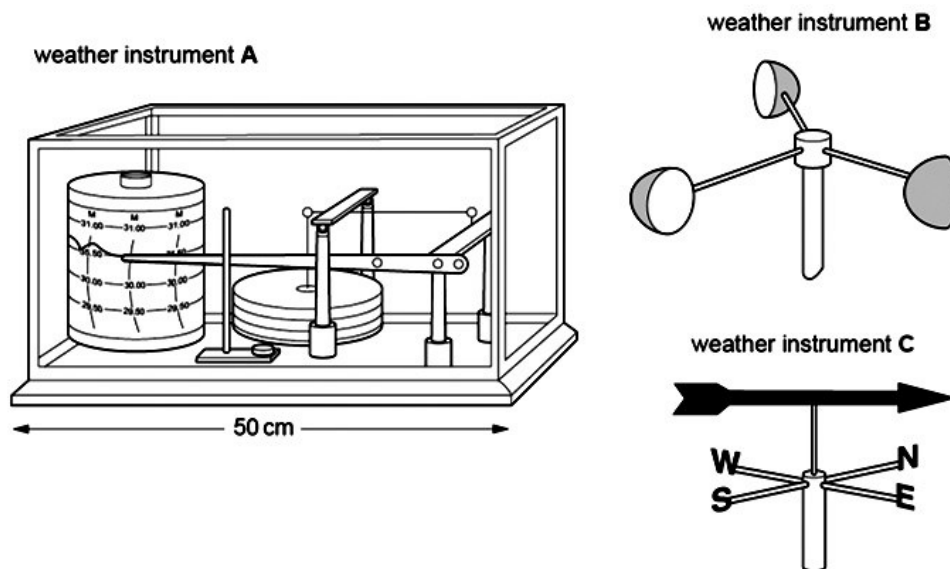
**SECTION A: ATTEMPT ALL QUESTIONS (55 marks)**

- 1) Define the term fieldwork. **(2 marks)**
- 2) a) Outline elements of a good map. **(3 marks)**  
b) With clear illustrations, describe the characteristics of the two major classifications of map projections. **(2 marks)**
- 3) a) Write short notes on any two types of weathering. **(2 marks)**  
b) Name any three processes of physical weathering. **(3 marks)**
- 4) State three factors that influence mass wasting. **(3 marks)**
- 5) Outline three ways in which river erosion works. **(3 marks)**
- 6) Write down the meaning of equinox and explain its types. **(3 marks)**
- 7) a) Write short notes on two major types of waves. **(4 marks)**  
b) Explain any two landforms produced by depositional waves. **(2 marks)**
- 8) Basing on any four evidences, prove that the earth is spherical in shape. **(4 marks)**
- 9) With the help of a well labelled diagram, indicate types of moraines formed by a glacier. **(3 marks)**
- 10) a) What does the term folding mean? **(1 mark)**  
b) With relevant examples discuss the impact of folding on drainage system. **(4 marks)**
- 11) Explain three types of rocks. **(3 marks)**
- 12) Draw and interpret rock and debris falls. **(4 marks)**
- 13) Name three conditions necessary for the growth of coral polyps. **(3 marks)**
- 14) Distinguish between vulcanicity and volcanicity. **(4 marks)**
- 15) State two characteristics of faulted lakes. **(2 marks)**

**SECTION B: ATTEMPT ANY THREE QUESTIONS (30 marks)**

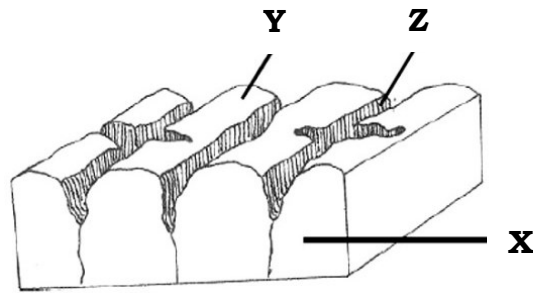
16) Discuss factors that affect soil fertility. **(10 marks)**

17) The figure below shows three weather instruments (**A**, **B** and **C**).



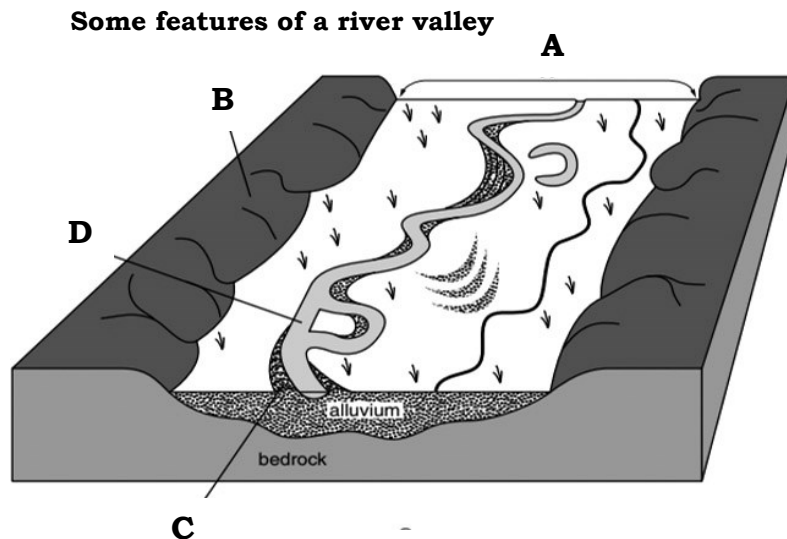
- a) Name the weather instruments marked **A**, **B** and **C**. **(3 marks)**
  - b) How does the weather instrument **A** work? **(3 marks)**
  - c) State the uses of the weather instruments marked **B** and **C**. **(2 marks)**
  - d) Where are the weather instruments **B** and **C** placed at a weather station? Give a reason for your answer. **(2 marks)**
- 18) a) Define the term climate change. **(2 marks)**
- b) Explain the causes of desertification in the world. **(8 marks)**
- 19) a) Explain the factors responsible for the distribution of vegetation in Rwanda. **(5 marks)**
- b) Identify the characteristics of a coniferous forest. **(5 marks)**
- 20) a) What does the term Karst scenery mean? **(2 marks)**
- b) State three factors that influence the development of a karst land form. **(3 marks)**

- c) The diagram below shows a feature in a Karst landscape.  
Study it and answer the questions that follow.



- i) Name the parts marked **X**, **Y** and **Z**. **(3 marks)**
- ii) Describe how the features marked **Y** and **Z** are formed. **(2 marks)**

- 21) The diagram below shows a plate boundary. Study it and answer the questions that follow.



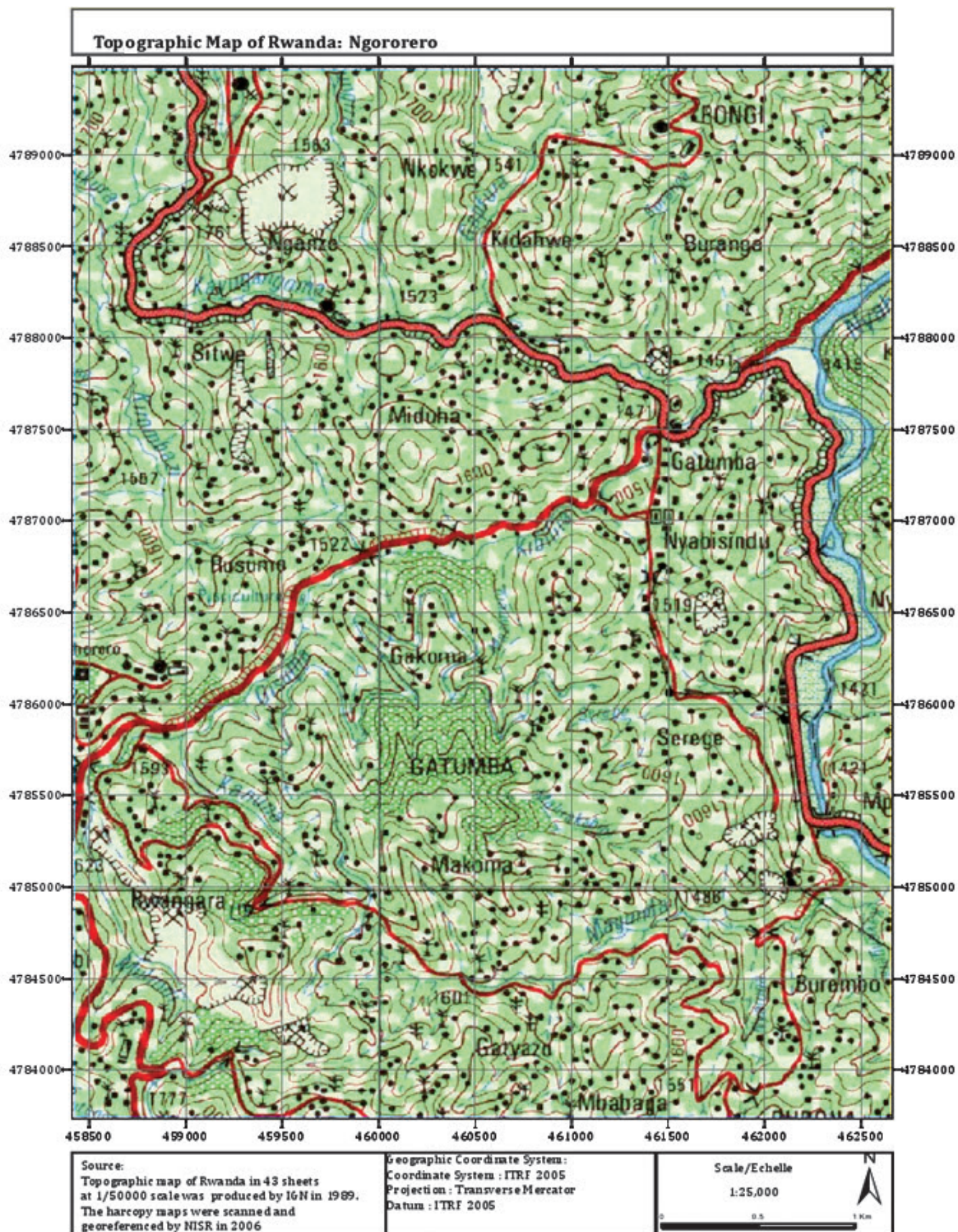
- a) Identify the features marked: **A**, **B**, **C** and **D**. **(4 marks)**
- b) Describe any three features you have identified in (a) and explain how each was formed. **(6 marks)**

**SECTION C: ATTEMPT ONLY ONE QUESTION (15 marks)**

22) Study the map extract of Ngororero 1: 25000 (Rwanda) and answer the questions that follow.

- a) (i) Give four figure and six figure grid references of Gatumba road junction. **(2 marks)**
- (ii) Calculate the vertical exaggeration of the cross section. Use a scale of 1 cm to represent 25 meters. **(2 marks)**
- (iii) Calculate the distance in kilometers of the main river in the western part of the map extract. **(1 mark)**
- b) Describe the drainage system of the area covered by the map extract. **(4 marks)**
- c) (i) Apart from trading, name two other economic activities that appear in the area of Ngororero covered by the map extract. **(2 marks)**
- (ii) Using evidences from the map extract, explain four factors that favour trading in the area covered by the map extract. **(4 marks)**











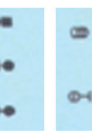






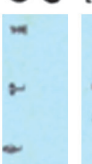
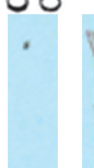
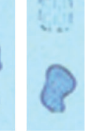
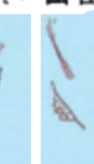





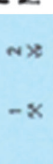












SCALE/ECHELLE 1:25,000



	<b>Main tarmac road</b> Route national asphaltée		<b>Dense/nucleated settlement</b> l'habitat concentré		<b>Natural forest, plantation</b> Forêt naturelle, boisement
	<b>Main murrum road</b> Route national non asphaltée		<b>Sparse, scattered</b> Dispense, remarquable		<b>Savannah or pasture.</b> Savane ou pasturage
	<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> Papyrus
	<b>Boulevard/road lined with trees</b> Route bordée d'arbres		<b>Border post, market</b> Poste de douane, marché		<b>Bananas, sugar cane, coffee</b> Bananier, cane à sucre, café
	<b>Road under construction</b> Route en construction		<b>International airport, aerodrome/air strip</b> Aéroport international, aérodrome		<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> Coube 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 en activité 2 arrêtée

23) Study the photograph below and answer the questions that follow.



- a) (i) What type of photograph is this? **(1 mark)**
- (ii) What type of farming is shown in the photograph? **(1 mark)**
- (iii) Identify three physical features depicted in the photograph. **(3 marks)**
- b) (i) State three characteristics of the type of farming shown above. **(3 marks)**
- (ii) Explain three factors that favour the type of farming shown in the photograph. **(3 marks)**
- (iii) Explain four ways in which the government of Kenya assists nomadic pastoralists to improve the quality of their livestock. **(4 marks)**

- **END** -