

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) Write your names and index number on the answer booklet as they appear 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 paper until you are told to do so.
- 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: Attempt any **one** question. **(10 marks)**
- 4) Use only a **blue** or **black pen**.

SECTION A: Attempt all questions from this section. (55 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)**
- 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)**
- 11) Distinguish between active and dormant volcanoes and give an example of each. **(4 marks)**
- 12) Mention any five characteristics of equatorial climate. **(5 marks)**
- 13) Briefly evaluate the impact of pollution to human beings and their surroundings. **(4 marks)**

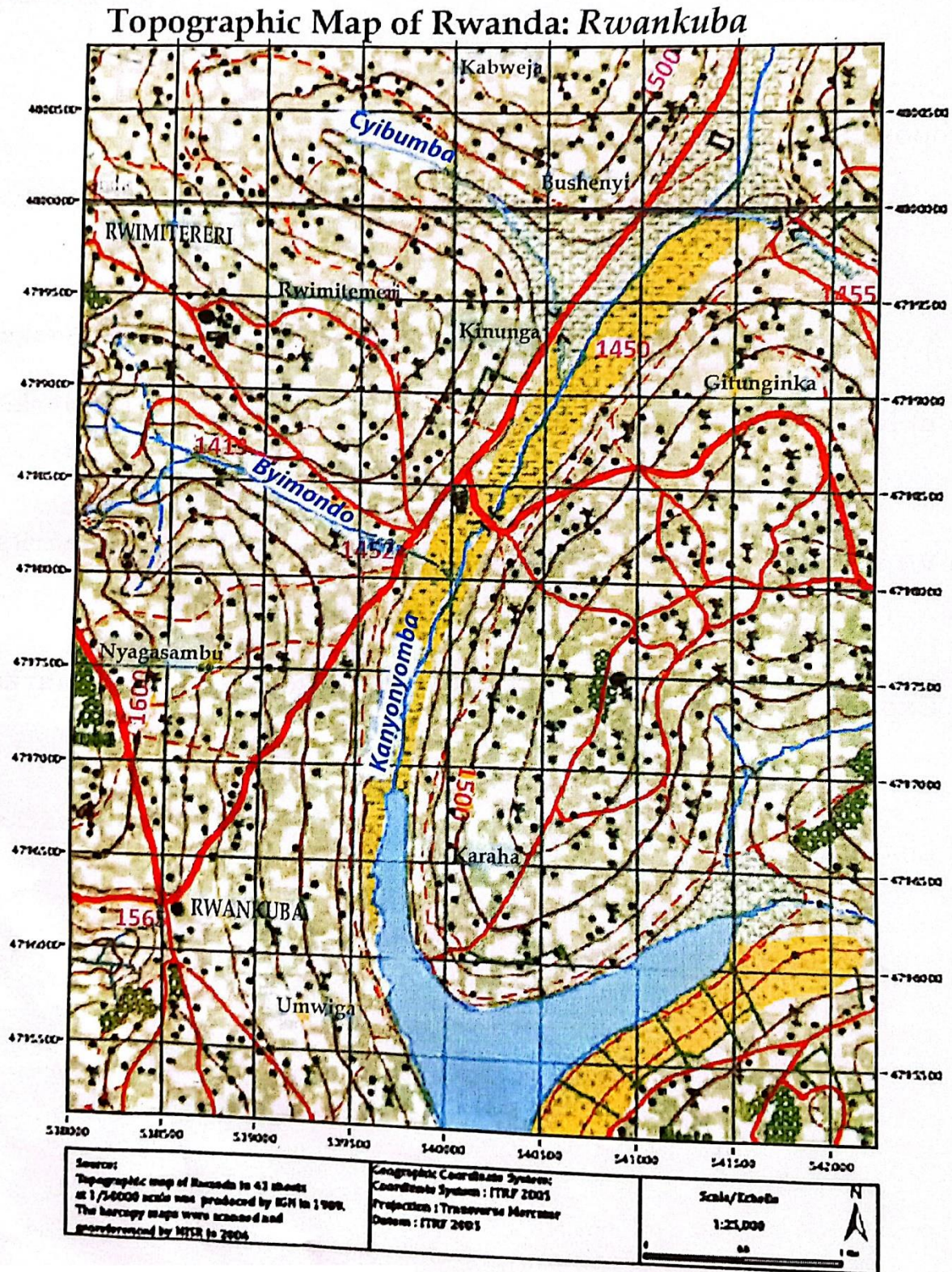
SECTION B: Attempt only two questions

(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)**




































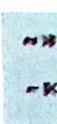
SECTION C: This question on map work is compulsory. (10 marks)

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



SCALE/ECHELLE 1:25,000



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

- a) Identify the drainage patterns shown in the map. **(2 marks)**
- b) Show the highest and 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)**
- d) Explain four factors which have influenced the distribution of settlement in the area covered by the map. **(4 marks)**

END