

Geography III

023

15/11/2016 8.30am-11.30am



ADVANCED LEVEL NATIONAL EXAMINATIONS, 2016

SUBJECT: GEOGRAPHY

PAPER III: PHYSICAL GEOGRAPHY

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)

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

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

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

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

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

SECTION A: Attempt all questions. (55marks)

1) Give any three evidences to show that the earth is spherical. **(3marks)**

2) Briefly describe the continental drift theory using evidences from the southern continents. **(3marks)**

3 a) Which movement of the earth causes the tides. **(1mark)**

b) Explain four types of tides. **(4marks)**

4) Differentiate between terrestrial radiation and solar radiation. **(2marks)**

5) With illustrations, differentiate between katabatic and anabatic winds. **(3marks)**

6 a) Describe the tropical monsoon forest. **(4marks)**

b) Name and describe the type of vegetation found in most countries of North Africa. **(3marks)**

7 a) Explain two types of igneous rocks. **(2marks)**

b) i) Name the type of rocks found in the north west of Rwanda. **(2marks)**

ii) Give one reason to support your response in 7b(i) above. **(1mark)**

8) Explain three types of folds. **(3marks)**

9) Explain three reasons to explain why temperature reduces with an increase in altitude. **(3marks)**

10) Give three factors that affect the formation of river meanders. **(3marks)**

11 a) Explain four types of volcanic eruptions. **(4marks)**

b) Name at least 2 features formed as a result of the eruptions mentioned in 11(a) above. **(2marks)**

12 a) Differentiate between soil profile and soil catena. **(2marks)**

b) Describe two factors that influence soil formation. **(2marks)**

13) Explain any four factors that affect the sunshine of an area. **(4marks)**

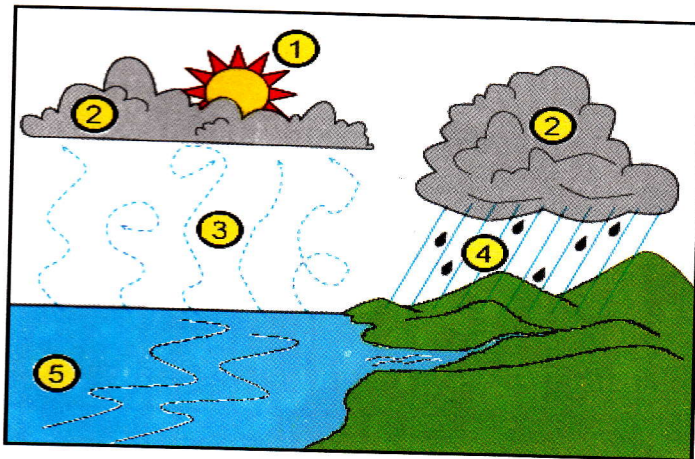
14) Explain the influence of topography and altitude on climate determination. **(4marks)**

SECTION B: Attempt any three questions. (30marks)

- 15 a) Briefly describe the vertical structure of the atmosphere. **(6marks)**
- b) In what layer of the atmosphere is the ozone layer found? **(1mark)**
- c) Analyze the way the ozone layer must be protected. **(3marks)**

- 16 a) What is humidity? **(1mark)**
- b) Name the unit of measurement of humidity. **(1mark)**
- c) Differentiate between relative humidity and absolute humidity. **(2marks)**
- d) Explain any three factors that influence humidity. **(3marks)**
- e) Outline any three uses of moisture in atmosphere. **(3marks)**

- 17 a) Name the parts of the water cycle labeled by the numbers in the diagram below. **(5marks)**



*mesosphere
stratosphere
troposphere
thermosphere*

- b) Explain how the water cycle occurs. **(5marks)**
- 18 a) State the differences between rock slumping and rock solifluction. **(2marks)**
- b) With specific examples, examine the effects of rock slumping on human activities. **(8marks)**
- 19 a) With the aid of diagrams, explain how the following volcanic features are formed:
- i) Lopolith **(2marks)**
- ii) Geyser **(2marks)**
- b) Discuss the effects of volcanicity on man's activities. **(6marks)**

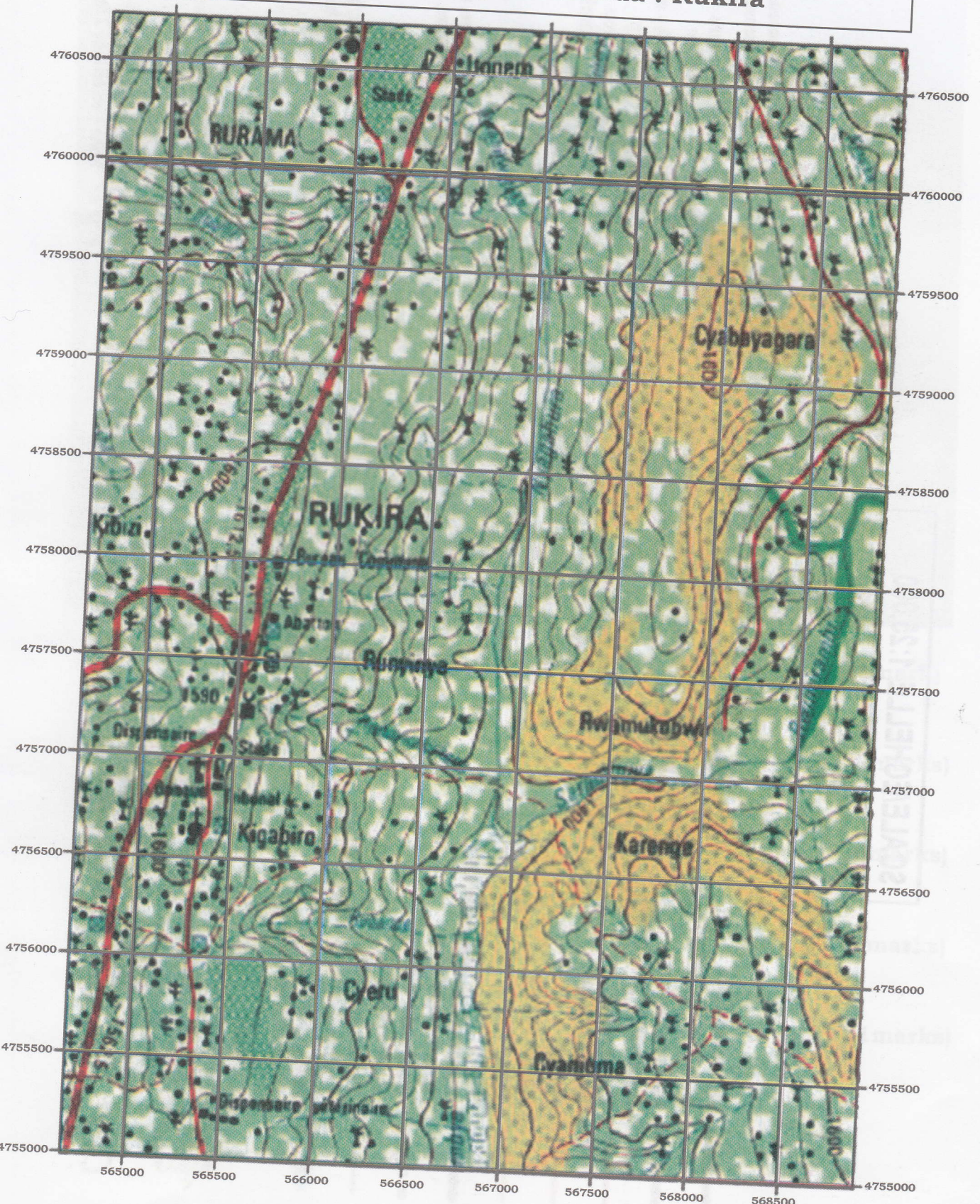


SECTION C: Attempt one question. (15marks)

20) Study the map extract of **RUKIRA** and answer the questions that follow:

- a) (i) Identify **two types** of settlements from the map extract. **(2marks)**
 - (ii) Give reasons to support the answer given in 20a)(i) above. **(3marks)**
- b) (i) Describe the relief of the area covered by the map. **(3marks)**
 - (ii) Describe the vegetation of the area covered by the map. **(3marks)**
 - (iii) Explain the influence of relief on vegetation distribution. **(4marks)**

Topographic Map of Rwanda : Rukira

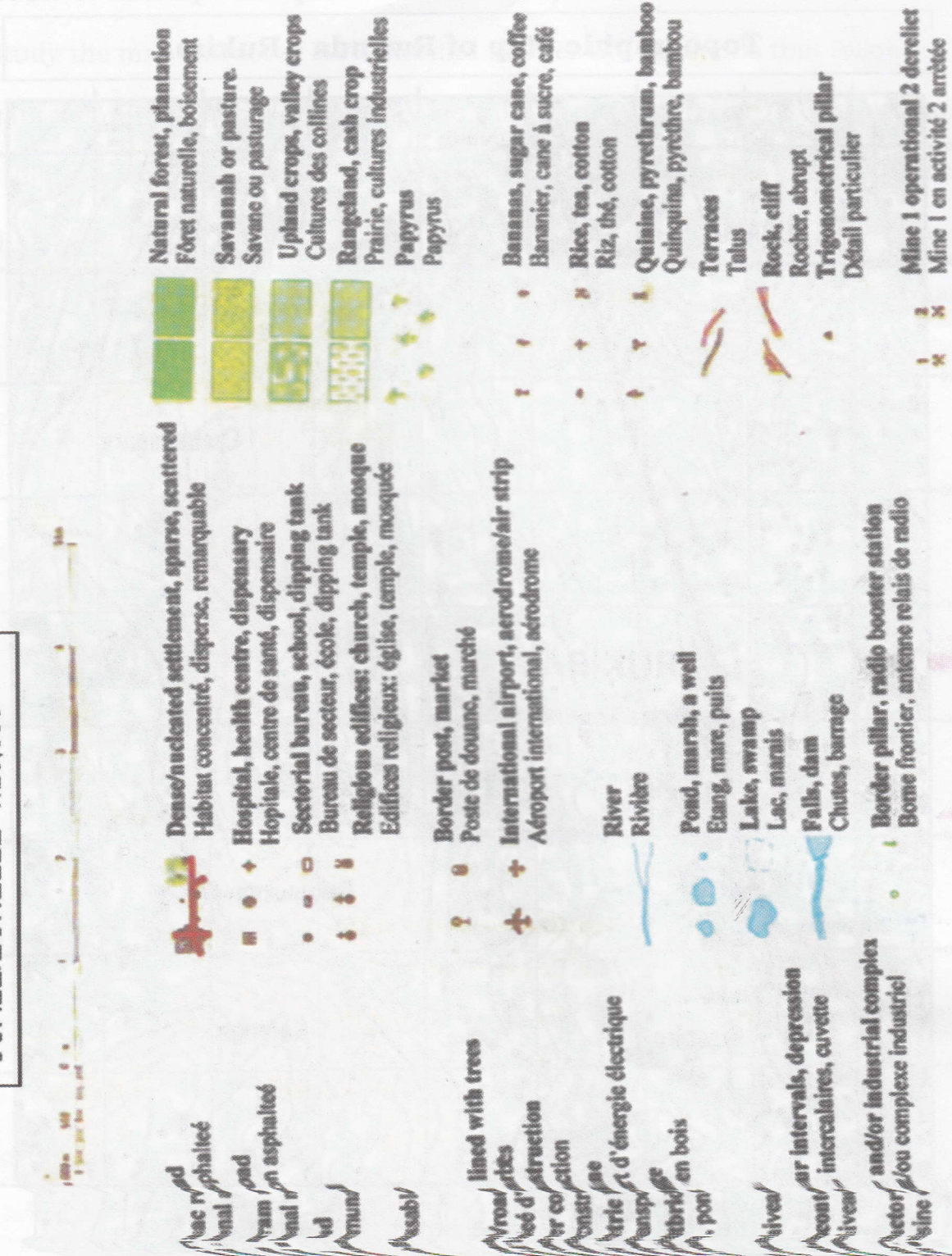


Source:
 Topographic map of Rwanda in 43 sheets
 at 1/50000 scale was produced by IGN in 1989.
 The harcopy maps were scanned and
 georeferenced by NCR in 2006.

Geographic Coordinate System:
 Coordinate System : UTM 2005
 Projection : Transverse Mercator
 Datum : UTM 2005

Scale/Echelle
 1:25,000

SCALE/ECHELLE 1:25,000



21. Study the photograph below and answer the questions that follow.



- a) Identify the major activity taking place in the photograph. **(1mark)**
- b) Describe any two factors that favour the activity identified in 21(a) above. **(3marks)**
- c) Explain the importance of the activity to the people who live in the area and to the country's economy. **(6marks)**
- d) Explain the problems that face the activity identified in 21(a) above. **(4marks)**
- e) Identify an area in Rwanda where the photograph could have been taken. **(1marks)**

Ngoronero.
Harvest