



INDEX NUMBER :

STUDENT NAME :

SCHOOL NAME :

Do not mutilate, fold or put any mark over the barcode

Supervising Examiner / Invigilator's Initial

**FOR OFFICIAL USE ONLY**

Reading Time: 15 Minutes

Writing Time: 2 Hours

Full Marks: 80

Year: 2022

**GEOGRAPHY**

Administrative No.

| For Marker's USE only |          |            |       |                        |                       |                |                        |
|-----------------------|----------|------------|-------|------------------------|-----------------------|----------------|------------------------|
| Section               | Question | Full Marks | Award | Marker Initial         | Cross Checker Initial | Change, if any | Marker Initial         |
| A                     | 1        | 15         |       |                        |                       |                |                        |
|                       | 2        | 5          |       |                        |                       |                |                        |
|                       | 3        | 5          |       |                        |                       |                |                        |
| B                     | 4        | 9          |       |                        |                       |                |                        |
|                       | 5        | 9          |       |                        |                       |                |                        |
|                       | 6        | 9          |       |                        |                       |                |                        |
|                       | 7        | 9          |       |                        |                       |                |                        |
|                       | 8        | 9          |       |                        |                       |                |                        |
| C                     | a        | 6          |       |                        |                       |                |                        |
|                       | b        | 4          |       |                        |                       |                |                        |
|                       |          | TOTAL      |       | Chief Marker's Initial |                       |                | Chief Marker's initial |
|                       |          |            |       |                        |                       |                |                        |

## **READ THE FOLLOWING INSTRUCTIONS CAREFULLY:**

1. **Do not** write for the first **fifteen minutes**. This time is to be spent on reading the questions. After having read the questions, you will be given **two hours** to answer all the questions.
2. In this paper, there are three sections: **A, B and C**. All the questions in this paper are **compulsory**.
3. **Read and re-read carefully** to understand the **instructions and questions** before answering them.
4. **Writing neatly and clearly** will always go well in **your favour!** If your writing cannot be read – **marks can't be awarded**.
5. **Do not** remove or tear off any page from the booklet.
6. **Do not** draw lines or pictures on or in the booklet unless specified by the questions. **Marks can be deducted** for any **Not-Called-For** scribbling, sketching, commenting etc. written in your answer booklet.
7. **Do not** leave the examination hall before you have made sure that you have answered all the questions.
8. The cover page has **BARCODE**. **Do not** mutilate, fold or put any mark on them. **DO NOT** remove the cover page from the booklet. If you do so, your answers will not be evaluated.

## SECTION A [25 Marks]

### Question 1

[15]

**Direction: For each question, there are four alternatives: A, B, C and D. Choose the correct alternatives and circle it. DO NOT circle more than ONE alternative. If there is more than one choice circled, NO score will be awarded.**

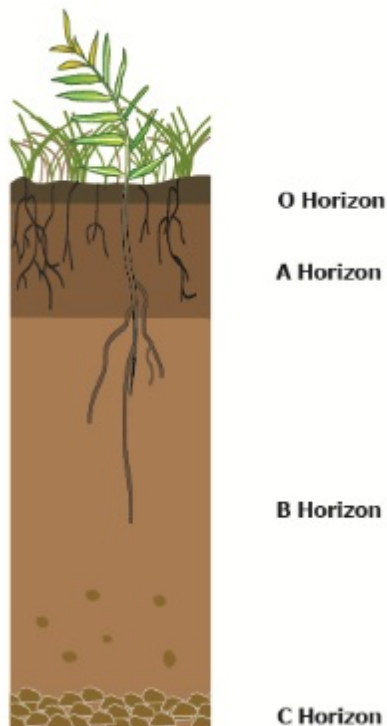
- a) The Earth takes 24 hours to complete one rotation of  $360^\circ$  longitude, what will be the time taken to cover one degree longitude?

[1]

- A 4 minutes
- B 10 minutes
- C 15 minutes
- D 60 minutes

- b) A vertical cross section of the soil as shown in the diagram is:

[1]




- A Soil Texture
- B Soil Profile
- C Soil Structure
- D Soil Property

- c) A population structure consists of a number of males and females in different age groups. The age group between 15 - 59 years is considered as [1]
- A an aging group
  - B dependent age group
  - C uneconomical age group
  - D economically productive age group


- d) This pattern of settlement is generally found and developed on the hills and slopes of mountains. The statement best describes [1]
- A linear settlement
  - B terraced settlement
  - C clustered settlement
  - D dispersed settlement

- e) [1]
- A



**V-shaped valley**

B



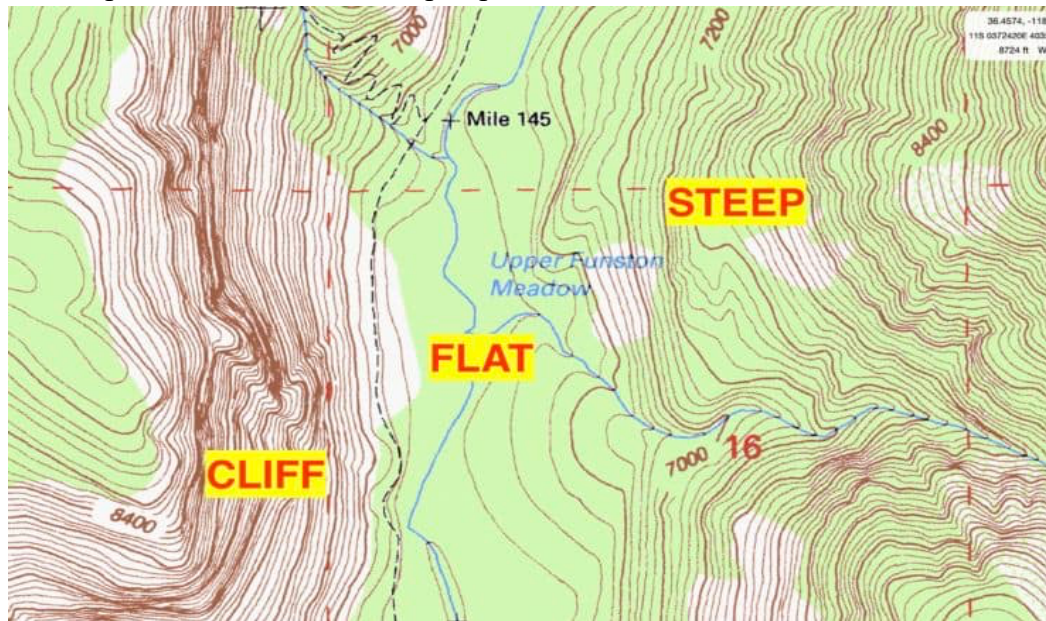
**U-shaped valley**

Landform A is formed by:

- A erosional work of a river in the first stage.
  - B erosional work of a river in the second stage.
  - C transportation work of river in the first stage.
  - D transportation work of river in the second stage.
- f) Which of the following options show the **CORRECT** flow of energy in an ecosystem? [1]
- A fungi → plant → rabbit → snake
  - B plant → rabbit → deer → tiger
  - C plant → rabbit → snake → eagle
  - D grasshopper → shrew → rabbit → snake

- g) International Date Line is a meridian that demarcates the change of one calendar day to a new day. What will happen if you travel from west to east and cross the International Date Line? [1]
- A lose half a day
  - B gain half a day
  - C lose one day
  - D gain one day
- h) Deciduous trees usually shed their leaves during winter, whereas evergreen trees do not. Which of the following is a deciduous tree? [1]
- A oak
  - B cypress
  - C hemlock
  - D blue pine
- i) The disaster management cycle consists of four phases that considers activity before, during and after a disaster. The activity that is carried out before a disaster is called [1]
- A mitigation
  - B recovery
  - C response
  - D preparedness
- j) What will be the R.F of a map, if the statement scale of a map is 2 cm = 1 km? [1]
- A 1: 20,000
  - B 1: 40,000
  - C 1: 50,000
  - D 1: 60,000
- k) As per the World Bank report of 2020, the population of Bhutan has increased by 1.1%. The growth of population during the year has been due to: [1]
- A death rate is higher than birth rate
  - B birth rate is higher the death rate
  - C immigration is more than emigration
  - D migration is more than immigration

- l) Different features are depicted in a contour map with contour lines. Closely spaced contours in the map depict a [1]



Contour map

- A tableland.  
B plain area.  
C steep slope.  
D gentle slope.
- m) The increase in the world's population exerts more pressure on the environment; therefore, management of the natural environment has become necessary. What do you understand by management of natural environment? [1]  
A proper use of land resources in the environment  
B proper use of water resources in the environment  
C proper use of resources in the environment  
D exploitation of resources in the environment
- n) Karma approached the Gewog Agriculture Extension Officer after observing that the yield from his two acres farmland has been decreasing. The officer advised him to add humus to the soil to increase the yield. Why was Karma advised to add humus? [1]  
A It breaks down organic pollutant.  
B It helps to improve water penetration.  
C It converts nitrogen into nitrites for plants.

- D It is rich in nutrients, important for fertility.
- o) Trashigang Dzongkhag Census Officer found out that there are more aged population in his dzongkhag. This is because of [1]
- A high birth rate of population
- B high death rate
- C decrease in life expectancy.
- D increase in life expectancy.

### Question 2

[5]

**Direction: Write True or False against each statement**

| Questions  | Answers |
|--|---------|
| i. The Great Circle divides the Earth into two equal halves.             |         |
| ii. Vegetation affects the climate of a place.                           |         |
| iii. Earthquake is mainly caused by soil erosion.                        |         |
| iv. The upper course of the river is also known as youthful stage.       |         |
| v. In rural settlements, most people are engaged in tertiary activities. |         |

### Question 3

[5]

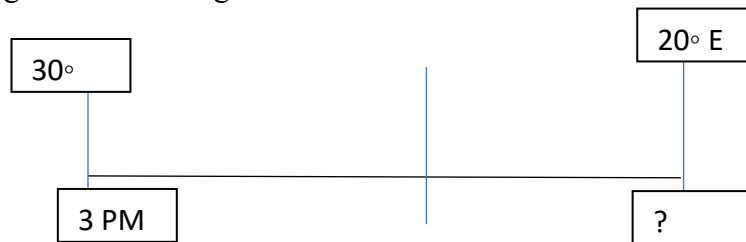
**Direction: Match each item in column I against the most appropriate item in column II.**

| Column A  | Column B            | Column C |
|---|---------------------|----------|
| i. Richter scale  | a. Sandy soil       | i.       |
| ii. Size of the soil                                      | b. Linear pattern   | ii.      |
| iii. Fertile materials deposited at the base of mountains | c. Terraced pattern | iii.     |
| iv. Large particles and not sticky                        | d. Soil texture     | iv.      |
| v. Settlements usually built along the road or river      | e. Earthquake       | v.       |

### SECTION B [45 Marks]

#### Question 4

- a) The football match between Manchester City and Chelsea will be broadcasted live from  $30^{\circ}$  West longitude at 3 PM. At what time can you watch the match living at  $20^{\circ}$  East longitude? [2]



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- b) If you are lost in a dense jungle, a compass will be useful to you. How does a compass help you? Write TWO points. [2]

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- c) Why would you prefer to sit under a tree on a hot sunny day? Support your answer with TWO reasons. [2]

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- d) Latitudes and longitudes form important parts of the Earth's grid. State TWO uses of latitude and longitude in your daily life. [2]

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- e) Lhuentse lies in the upper course while Punakha lies in the middle course of a river. How does the work done by a river affect livelihood of people in these places? [1]

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### Question 5

- a) Your father living in Saudi Arabia at 45° East longitude calls you at 9 PM. [2]  
You receive his call at 3 PM the same day, what is the location (longitude) of your place?



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- b) Design a poster to create an awareness on the importance of rivers for the [2]  
socio-economic development of our country.

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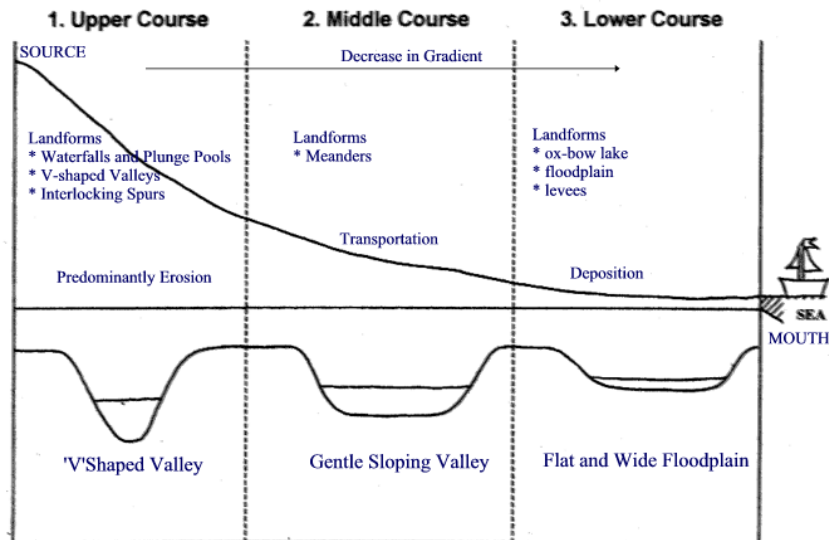
- c) Develop an individual disaster management plan to be used at home in the event of an earthquake with all the phases. Support your answer with a suitable diagram. [2]

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- d) Would you prefer to live in the plains or in the mountains? Give TWO justifications to support your choice. [2]

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- e) River transport and deposit soil and silt particles along the course. In which stage of a river is a good quality sand found? Why? Refer the diagram to answer this question. [1]



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### Question 6

- a) Rivers flowing over gently sloping ground begin to curve back and forth across the landscape forming meanders. The continuous process of meandering results in the formation of an oxbow lake. Explain the formation of an oxbow lake with the help of a diagram. [2]

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- b) If there were no latitudes and longitudes, what would have happened the world? Explain the significance of latitude and longitude with at least TWO points each. [3]

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- c) Although people use digital maps like Google Earth, conventional maps are still important. Explain with suitable reasons. [2]

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- d) More population will bring in more income to the nation. Do you agree with this statement? Support your answer with TWO valid reasons [2]

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### Question 7

- a) Culture and tradition have influence on the design and structure of the buildings in our society. Support the statement with TWO valid reasons by referring to the pictures given, how culture and tradition have influenced design and structure in our country? [2]



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b)            Figure A shows Thimphu in late 1980s and figure B, Thimphu in 2000s. [2]



Figure A

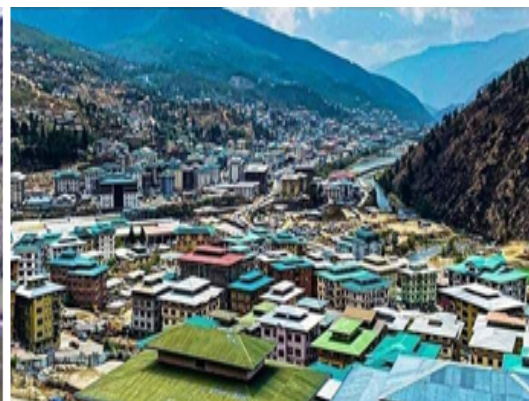


Figure B

Compare these two photographs and, explain how humans have impacted the environment?

[illegible]

c) Draw a bar graph with the help of population data given in the table (Population development in Bhutan since 1960).

[3]

| Year | Population | Change [%] |
|------|------------|------------|
| 2004 | 639,000    | 1.75       |
| 2008 | 672,000    | 1.01       |
| 2012 | 702,000    | 1.20       |
| 2016 | 737,000    | 1.21       |
| 2020 | 772,000    | 1.12       |



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d) The change in population has been less than 2.0 % since 2003 as per the information [2]  
given in Question 7 c. What do you think are some of the reasons for this? Mention at  
least TWO reasons.

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Question 8.

a. Landforms are formed by the interaction of various forces. What is the most [2]  
dominant force of landforms in a mountainous terrain? Support your answer with at  
least TWO reasons.

b). Landform



Observe the picture given and explain the significance of landforms on the lives of the people in the community. Cite at least TWO examples of landforms showing their significance

[2]

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- a) Tourism sector contributes a substantial portion of revenue for Bhutan. Which landform you would prefer to develop into a tourist attraction centre and why? Provide at least THREE points.

[3]

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b)

People are restricted to visit mountains/lakes during certain seasons of the year in certain locality in Bhutan. Give TWO suitable reasons for this.

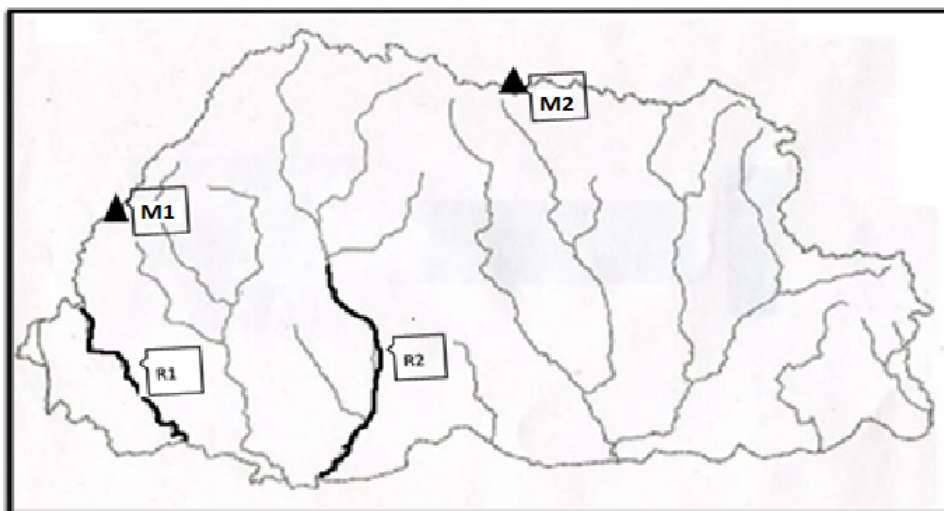
[2]

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### SECTION C (10 Marks)

- a) In the outline map of Bhutan:
- i. Name the mountains M1 and M2. [1]
  - ii. Name the rivers R1 and R2. [1]
  - iii. Mark with a thick dot (o) and name Gasa, Samtse, Jomotsangkha and Lhuentse. [2]
  - iv. Shade (/////) over a densely populated dzongkhag and (.....) over a sparsely populated dzongkhag. [1]
  - v. Mark with (X) and name Dochula and Thrumshengla. [1]



- b) In the outline map of Asia:
- i. Name the countries marked C1, C2, C3 and C4. [2]
  - ii. Name the rivers marked R1 and R2. [1]
  - iii. Mark with a dot [o] and name Singapore and Colombo. [1]

