

GEOGRAPHY

PAPER 1

(THEORY)

(Maximum Marks: 70)

(Time allowed: Three hours)

(Candidates are allowed additional 15 minutes for **only** reading the paper.

They must **NOT** start writing during this time.)

Answer **Sections A and B** from **Part I** which are compulsory.

Answer any **four** questions from **Part II**.

Sketch maps and diagrams should be drawn wherever they serve to illustrate your answer.

The intended marks for questions or parts of questions are given in brackets [].

PART I (30 Marks)

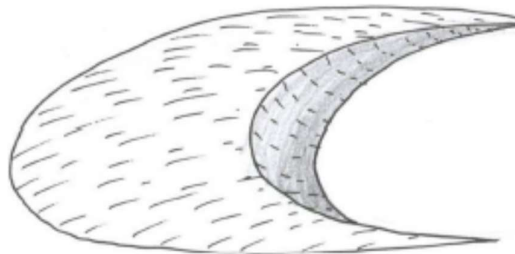
Answer **all** questions.

SECTION A

Question 1

[10 × 2]

- (i) Mention *two* drawbacks of the sedimentation method in determining the age of the earth.
- (ii) What is a *Shadow Zone* and why is it formed on the surface of the earth?
- (iii) Name the metamorphosed form of the following rocks:
 - (a) Granite
 - (b) Sandstone
- (iv) Differentiate between *Exfoliation* and *Block Disintegration*.
- (v) Study the diagram given below:



- (a) Identify the feature.
 - (b) Name the agent of gradation responsible for its formation.
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- (vi) Out of the total 100 units insolation, only 51 units reach the surface of the earth. Explain what happens to the remaining units.
- (vii) With the help of a neat labelled diagram show the position of the Sun, Earth and Moon during the Spring tide.
- (viii) Mention *two* reasons for India being a home to a variety of unique ecosystems.
- (ix) Mention *two* characteristic features of the rainfall in the equatorial region.
- (x) What is *rain water harvesting*? Why is it gaining popularity in India?

SECTION B

Question 2

[10]

On the outline map of the World provided:

- (a) Mark and label the Drakensburg Range.
- (b) Trace the course and label the river Mackenzie.
- (c) Mark and label the Persian Gulf.
- (d) Show the direction with an arrow and label the Gulf Stream.
- (e) Mark and label the Anatolian plateau.
- (f) Point with an arrow and label the island of Tasmania.
- (g) Point an arrow to locate and label The Strait of Magellan.
- (h) Mark an area in South America experiencing Mediterranean climate.
- (i) Trace the course and label River Hwang Ho.
- (j) Mark and label the Himalayas.

Note: *All the map work, including legend (Index) should be done on the map sheet only.*

PART II (40 Marks)
Answer any four questions.

Question 3

- (a) Explain the origin of the Universe according to the Big Bang Theory. [2]
- (b) (i) Mention *any two* differences between the Upper Crust and the Lower Crust of the Earth. [2]
(ii) Name the discontinuity that exists between the Mantle and the Core. [1]
- (c) (i) Why are Sedimentary rocks called stratified rocks? Give *one* example of sedimentary rock. [2]
(ii) Why are Igneous rocks called primary rocks? [1]
- (d) With the help of a neat labelled diagram show the Rock Cycle. [2]

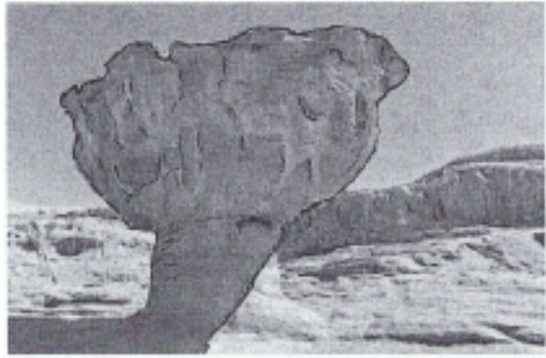
Question 4

- (a) (i) Why are volcanoes considered as the ‘Safety Valves’ of the earth? [1]
(ii) Draw a neat labelled diagram of a Composite Volcanic cone. [1]
- (b) Explain *any two* evidences put forward by Wegener to support his theory of the Continental Drift. [2]
- (c) Differentiate between the following: [3]
 - (i) *Epicentre* and *Focus*
 - (ii) *Volcanic mountain* and *Residual mountain*
 - (iii) *Convergent Plate Boundary* and *Divergent Plate Boundary*.
- (d) (i) “Gradation is the product of the combined actions of Degradation, Transportation and Aggradation.” Explain. [2]
(ii) How are Laterite Soils formed? [1]

Question 5

- (a) With the help of neat labelled diagrams show the following and give reasons for their difference: [3]
 - (i) Shape of river Valley in the Upper Course.
 - (ii) Shape of a glacial valley in the mountain.

- (b) Study the photograph given below and answer the questions that follow:



- (i) Identify the feature. [1]
- (ii) Explain how this is formed. [2]
- (c) Differentiate between the following: [2]
- (i) *Fringing Reef* and *Atoll*
- (ii) *Stalactite* and *Stalagmite*
- (d) (i) Why is there an urgent need for conservation of water resources in our country? [2]

Question 6

- (a) Other than reflection, scattering, absorption and giving the morning and evening sky an orange hue, explain an important role played by dust particles in the atmosphere. [2]
- (b) With the help of a neat labelled diagram show the major pressure belts in the Northern Hemisphere. [2]
- (c) Give Geographical reasons to explain why: [2]
- (i) The troposphere is thicker over the equator and shallow over the poles.
- (ii) Isotherms bend while crossing from land to oceans.
- (d) Differentiate between Relative Humidity and Absolute Humidity. [2]
- (e) Mention the characteristic features of Convectional rainfall. [2]

Question 7

- (a) Differentiate between [2]
- (i) *Continental Shelf* and *Continental Slope*
 - (ii) *Terrigenous Deposits* and *Pelagic Deposits*
- (b) Mention *three* factors which influence salinity in oceans. [3]
- (c) State *three* ways in which ocean currents influence life along the regions they flow. [3]
- (d) Explain the role of El Nino in influencing monsoons over India. [2]

Question 8

- (a) Briefly explain the different components of the biosphere. [3]
- (b) Mention *any two* reasons explaining the need for conserving biodiversity. [2]
- (c) Explain the following terms: [2]
- (i) Gene banks
 - (ii) Biodiversity
- (d) Study the given sketch map and answer the following: [3]



- (i) Name the climatic region shown on the map, labelled A.
- (ii) State the climatic conditions of the given region.
- (iii) Name the dominant natural vegetation found in this climatic region.

Question 9

- (a) Briefly discuss *any three* factors responsible for climate change. [3]
- (b) With reference to India, answer the following questions: [2]
- (i) State *any one* evidence which shows climatic change has taken place in India.
- (ii) Mention *any two* measures taken to adapt to the climatic change you have mentioned in question (b) (i).
- (c) (i) Identify the natural disaster from the given photograph and answer the following questions: [1]



- (ii) Mention *any two* causes for the occurrence of this natural disaster. [1]
- (iii) Name *any one* region affected by it in India. [1]
- (iv) Mention *any two* remedial measures to reduce its impact on human life. [1]
- (d) State *any two* causes of floods in India. [1]