

Answers to this Paper must be written on the paper provided separately. You will not be allowed to write during the first 15 minutes. This time is to be spent in reading the question paper. The time given at the head of this Paper is the time allowed for writing the answers.

Attempt all questions from Part-I (compulsory). A total of five questions are to be attempted from Part-II. The intended marks for questions or parts of questions are given in brackets []

Note

1. In all **Map Work**, make wise use of arrows to avoid overcrowding of the map.
2. The Map given at the end of this question paper must be detached, and after marking, must be fastened to your answer booklet.
3. All sub-sections of the questions attempted must be answered in the correct serial order.

PART I

(Attempt all questions from this part)

Question 1

Choose the correct option:

[10]

1. The exact shape of the earth is
a) Sphere
b) circle
c) Oblate spheroid
d) flat
2. The time along the 0° line of longitude passing through Greenwich is known as
a) GMT.
b) IST.
c) Local time
d) none of the above
3. The date on which the Arctic Circle experience the midnight Sun is
a) 21st June.
b) 21st March
c) 21st December
d) 21st November
4. _____ rocks thus formed are generally more compact, harder and bulky than the original rocks.
a) Igneous
b) sedimentary.
c) Metamorphic
d) intrusive
5. Who is believed to have been the first to hypothesize that the shape of the earth is spherical?
a) Geocentric.
b) Heliocentric.
c) Copernicus
d) Pythagoras
6. An eastward moving wind driven current flowing 100-150 meter deep in Ocean is called
a) Labrador current
b) Tsushima current
c) Equatorial counter current
d) Kurile current
7. _____ regions are situated on the Western margins of the continent between 30° and 45° latitude in both hemispheres
a) Mediterranean region
b) equatorial region
c) Tropical desert region
d) tropical monsoon region
8. Sammi people live in the _____ region of Norway, Sweden, Finland and western Russia.
a) Temperate grassland
b) Tundra.
c) Taiga
d) tropical monsoon
9. Falling of liquid or solid water such as rain snow or hail from the atmosphere due to _____
a) Humidity
b) precipitation
c) Condensation
d) snowfall
10. This belt is located between 60° to 65° latitude in both the hemisphere.
a) Equatorial low pressure belt- doldrums
b) sub tropical high pressure belt
c) Sub polar low pressure belts
d) polar high pressure belts

Question2

On the outline map of the World provided:

[10]

- Shade and label the monsoon region in Asia.
- Mark the Arctic Ocean
- Shade and label the Caspian Sea
- Mark the Persian gulf
- Label the river Zaire
- Label the river Nile
- With bold lines mark and label the Andes
- With bold lines mark and label the Alps
- Shade and label the Western Australian desert
- Shade and label the Canadian shield.

Question3

- State any two benefits of smoke free zone.
- Why is there a need to encourage organic farming?
- Explain with diagram conventional rainfall.
- What is the impact of jet stream on the climate of India?
- Winds of a particular character influence the climate of the area they visit. Justify by giving example.

[10]

Part II

(Attempt any five questions from this part)

Question4

- Compare and contrast: ^{insolation}isolation and terrestrial radiation [2]
- With respect to factors affecting the distribution of the climate answer the following question [2]
 - Identify the factor which is responsible for variation in the monthly average temperature of Diego and Dallas.
 - The Ganga plains are very hot during summer.
- With the help of a suitable diagram explain the heat balance of the Earth. [3]
- Give reason. [3]
 - During the day the atmosphere prevent the Earth from becoming too hot.
 - The air resting over the mountain peaks is cold even though it is closer to the sun.

Question5

- Define the geographical terms. [2]
 - Greenhouse effect
 - Ionosphere
- Compare and contrast: troposphere and stratosphere [2]
- With the help of a suitable diagram explain the layers of the atmosphere. [3]
- With reference to thermosphere answer the following questions. [3]
 - Name the two layers into which it is divided.
 - Why is this layer known as transitional zone?
 - Radio communication is possible because of this layer. Do you agree? Justify your answers.

Question6

- Read information and write a single term. [2]
 - Sometime tides are of a higher magnitude than normal tides.
 - The winds which blow regularly in a fixed direction.
- Define the following terms: (a) planetary wind. (b) Ocean currents [2]
- With reference to Kuroshio current answer the following question [3]

- a) Name the ocean in which it prevails
- b) Is it a cold or warm current?
- c) State its any two characteristics
- iv) Give reasons. [3]
 - a) Ships prefer to sail along the ocean currents.
 - b) Rich fishing grounds are found in the areas where cold and warm current mix.

Question 7

- i) What is Equator? [2]
- ii) Explain a simple method to find local time of a place? [2]
- iii) Draw a labelled diagram showing various heat zone of the earth and explain. [3]
- iv) What will be the time at 90°W longitude when the time at 10°W longitude is 8 a.m.? [3]

Question 8

- i) Give reasons. [2]
 - a) Temperate grasses continue to be a foundation of the world's food supply.
 - b) Organic matter of the taiga soil is limited.
- ii) Define the following geographical terms. [2]
 - a) Lumbering.
 - b) Igloo
- iii) With reference to vegetation and soil of temperate grassland, answer the following question. [3]
 - a) State any two characteristics of the climate of the region.
 - b) State any two characteristics of the soil.
 - c) What are the various type of mosses found in the region?
- iv) With reference to the tundra, answer the following question. [3]
 - a) What is the location of the tundra region?
 - b) How is tundra biome characterized?
 - c) State any two characteristics of the Tundra vegetation.

Question 9

- i) Define the following. [2]
 - a) Biodegradable pollutants.
 - b) Pollutants
- ii) Nuclear power plants are the major source of radioactive pollution. Explain. [2]
- iii) Give reasons. [3]
 - a) Man is the most vulnerable of the effect of pollution.
 - b) Non biodegradable pollutants are very harmful.
- iv) With respect to sources of pollution answer the following question. [3]
 - a) How do the emissions from diesel engine affect the environment?
 - b) Released detergent into water adversely affects aquatic life. Explain.

Question 10

- i) State the precautions to be taken while placing rain gauge [2]
- ii) Compare and contrast: orographic rainfall and cyclonic rainfall. [2]
- iii) With respect to hail as a form of precipitation answer the following question [3]
 - a) What is hail?
 - b) Explain the process of formation of hail.
- iv) With reference to Frontal rainfall answer the following question. [3]
 - a) What is frontal rainfall?
 - b) Explain the phenomena of the frontal rainfall.