

**2 0 2 4**

( CBCS )

( 5th Semester )

**GEOGRAPHY**

SIXTH PAPER

( **Climatology** )

( Revised )

Full Marks : 75

Time : 3 hours

*The figures in the margin indicate full marks for the questions*

**( SECTION : A—OBJECTIVE )**

( Marks : 10 )

Tick (✓) the correct answer in the brackets provided :

1×10=10

1. The layer in which the weather phenomena are confined is

- (a) troposphere (   )
- (b) stratosphere (   )
- (c) mesosphere (   )
- (d) ionosphere (   )

2. The most abundant gas in the atmosphere is

- (a) oxygen (   )
- (b) carbon dioxide (   )
- (c) nitrogen (   )
- (d) argon (   )

3. The term 'frontogenesis' refers to the

- (a) decay of front (   )
- (b) creation of front (   )
- (c) occlusion (   )
- (d) migration of front (   )

4. The Coriolis force at the equator
  - (a) is maximum ( )
  - (b) is medium ( )
  - (c) is zero ( )
  - (d) varies ( )
5. The main cause of monsoon climate is
  - (a) low temperature ( )
  - (b) high temperature ( )
  - (c) seasonal reversal of wind ( )
  - (d) undulating terrain ( )
6. Which of the following jet streams is associated with heating of Tibetan plateau?
  - (a) Polar front jet stream ( )
  - (b) Subtropical jet stream ( )
  - (c) Tropical easterly jet stream ( )
  - (d) Polar night jet stream ( )
7. In the Köppen's system, the savanna is represented by which of the following letter symbols?
  - (a) Bs ( )
  - (b) Am ( )
  - (c) As ( )
  - (d) Aw ( )
8. Who introduced the idea of precipitation-evaporation ratio in climatic classification?
  - (a) Köppen ( )
  - (b) Thornthwaite ( )
  - (c) Critchfield ( )
  - (d) Strahler ( )
9. The concept of carbon credit originated from which one of the following?
  - (a) Kyoto Protocol ( )
  - (b) Earth Summit ( )
  - (c) Montreal Protocol ( )
  - (d) Doha Round ( )

10. Global warming is caused due to the emission of

- (a) nitrogen ( )
- (b) carbon dioxide ( )
- (c) carbon monoxide ( )
- (d) hydrocarbon ( )

**( SECTION : B—SHORT ANSWERS )**

( Marks : 15 )

Write on/Answer the following in short :

3×5=15

**UNIT—I**

1. Distinguish between weather and climate.

**OR**

2. Insolation

**UNIT—II**

3. Air mass

**OR**

4. Weather associated with tropical cyclone

**UNIT—III**

5. Define monsoon.

**OR**

6. La Nina

**UNIT—IV**

7. Potential evapotranspiration

**OR**

8. Advantage of Köppen's climatic classification

**UNIT—V**

9. Greenhouse effect

**OR**

10. Kyoto Protocol

( SECTION : C—DESCRIPTIVE )

( Marks : 50 )

Answer the following questions :

10×5=50

UNIT—I

1. Discuss the nature and scope of climatology.

5+5=10

**OR**

2. Explain the global energy budget of the earth with diagram.

10

UNIT—II

3. Define front. Explain the different types of front with diagram.

2+8=10

**OR**

4. Name the different global wind circulation. Explain the permanent winds.

2+8=10

UNIT—III

5. Discuss the origin and mechanism of monsoon winds.

5+5=10

**OR**

6. What are the impact of jet stream and El Nino on the Indian weather system?

10

UNIT—IV

7. Discuss the main features of the climatic classification system evolved by Köppen.

10

**OR**

8. Discuss the climatic classification of Trewartha.

UNIT—V

9. What are the causes and effects of global warming?

5+5=10

**OR**

10. Discuss the consequences of climate change on agriculture, food security and the coastal zones of the world.

4+3+3=10

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2024

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