

GEOG200 (MAJOR)

Student's Copy

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(NEP—2020)

(3rd Semester)

GEOGRAPHY (MAJOR)

(Climatology)

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 intensity of insolation depends on

- (a) altitude ()
- (b) latitude ()
- (c) nature of the earth's surface ()
- (d) winds ()

2. The most variable gas in the atmosphere is

- (a) nitrogen ()
- (b) oxygen ()
- (c) water vapour ()
- (d) argon ()

3. Horse latitude lies within
- (a) polar high ()
 - (b) equatorial low ()
 - (c) subtropical high ()
 - (d) subpolar low ()
4. The largest number of temperate cyclone originates in
- (a) the Indian Ocean ()
 - (b) the North Atlantic Ocean ()
 - (c) the Arctic Ocean ()
 - (d) the Arabian Sea ()
5. Winds which blow throughout the year from one latitude to the other in response to the latitudinal difference in air pressure are known as
- (a) periodic winds ()
 - (b) seasonal winds ()
 - (c) local winds ()
 - (d) planetary winds ()
6. A large volume of air in the atmosphere with uniform in temperature and moisture is known as
- (a) jet stream ()
 - (b) air mass ()
 - (c) front ()
 - (d) anti-cyclone ()
7. Although monsoons are mentioned in the old scriptures like *Rig Veda* and in the writing of several other scholars but the credit for first scientific studies of the monsoon winds goes to
- (a) the Romans ()
 - (b) the Greeks ()
 - (c) the Arabs ()
 - (d) the Indians ()

8. El Niño is a
- (a) cold current off the coasts of Peru and Ecuador ()
 - (b) warm current off the coasts of Ecuador and Chile ()
 - (c) cold current off the coasts of Chile and Peru ()
 - (d) warm current off the coasts of Peru and Ecuador ()
9. Thornthwaite's climatic classification is based on
- (a) monthly values of temperature and precipitation ()
 - (b) concept of water balance ()
 - (c) concept of distribution of vegetational distribution ()
 - (d) monthly values of humidity and rainfall ()
10. The second letter 'S' in Koppen's climatic code stands for
- (a) steppe-type climate ()
 - (b) desert-type climate ()
 - (c) warm wet climate ()
 - (d) cool humid climate ()

(SECTION : B—SHORT ANSWERS)

(Marks : 15)

Write short notes on *five*, taking at least *one* from each Unit :

3×5=15

UNIT—I

1. Heat Budget
2. Composition of Atmosphere

UNIT—II

3. Trade Winds
4. Tropical Cyclone

UNIT—III

5. Southwest Monsoon
6. Jet Stream

UNIT—IV

7. Basis of Thornthwaite's classification of climate

8. Climate change

(SECTION : C—DESCRIPTIVE)

(Marks : 50)

Answer *five* questions, taking at least *one* from each Unit :

10×5=50

UNIT—I

1. Explain the meaning and scope of climatology. 10

2. Discuss the structure of the atmosphere. 2+8=10

UNIT—II

3. What is cyclone? Describe the characteristics of temperate cyclone. 3+7=10

4. Explain in brief the origin and classification of air masses. 2+8=10

UNIT—III

5. Briefly explain the mechanism of Indian monsoon and its importance on Indian agriculture. 10

6. What are the western disturbances? How it impact the Indian climate? 4+6=10

UNIT—IV

7. Explain in detail Koppen's classification of climate. 10

8. What is global warming? Discuss the causes and effects of global warming. 2+8=10
