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MGG-005

**MASTER OF SCIENCE IN
GEOGRAPHY (MSCGG)
Term-End Examination
June, 2025**

MGG-005 : CLIMATOLOGY

Time : 3 Hours

Maximum Marks : 100

Note : *All Sections are compulsory. Marks are indicated against each question.*

Section—A

1. Answer any *five* of the following questions in about **150** words each : 5×4=20

- (i) Discuss briefly any *four* scales of climatology.

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- (ii) Differentiate between climatology and meteorology.
- (iii) Differentiate between the processes of conduction and convection related with the heating of atmosphere and earth.
- (iv) What are planetary winds and seasonal winds ?
- (v) What are positive Indian Ocean dipole and a negative Indian Ocean dipole ?
- (vi) What is the significance of climatic classification ?
- (vii) Differentiate between Short range weather forecast and Nowcast.

Section—B

2. Answer any *five* of the following questions in about **250** words each : 5×6=30

- (i) Discuss briefly any *four* controls of weather and climate.
- (ii) Describe any *four* factors affecting the horizontal distribution of temperature on the earth.
- (iii) Define air masses. Give an account of salient features of any *two* major air masses.
- (iv) Define 'Fronts' and 'Cyclones'. Briefly describe any *four* major cyclones that affected India.
- (v) Give an account of Tropical Rainy Climates (A) of Koppen.

- (vi) What is Global Warming ? Discuss briefly any *five* adverse effects of global warming.
- (vii) Discuss the spatial distribution and salient characteristics of Sahara type of climates.

Section—C

Note : Answer any *five* of the following questions in about **500** words each.

$$5 \times 10 = 50$$

3. Discuss the origin and evolution of earth's atmosphere. Explain the composition of earth's atmosphere.
4. What is air pressure ? Discuss any *four* factors influencing horizontal distribution of pressure on the earth.
5. What is fog ? Explain the types of fog.

6. What are the bases of Thornthwaite's 1931 climatic classification ? Discuss *three* similarities and *three* dissimilarities of Thornthwaite's climatic classification.
7. Briefly discuss the *four* theories of climate change.
8. What are the different sources of collecting climatic data ? Discuss the impact of climate on tourism and agriculture.
9. Define 'Insolation'. Discuss briefly the factors that affect insolation on earth's surface.

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