

**MA GEOGRAPHY**  
**First Semester**  
**Climatology and Oceanography**  
**(MGE - 02)**

**Duration: 3Hrs.**

**Full Marks: 70**

**Part-A (Objective) =20**

**Part-B (Descriptive)=50**

**(PART-B: Descriptive)**

**Duration: 2 hrs. 40 mins.**

**Marks: 50**

**1. Answer *any five* from the following**

**2×5=10**

- a) Write two factors affecting distribution of Insolation.
- b) Write two characteristics and example of High clouds.
- c) What are the characteristics of Convectonal rainfall?
- d) What is difference between La-Nina and El-Nino?
- e) What are the Sources and types of Marine deposits?
- f) What is Anticyclones? Write one characteristic of Anticyclone.
- g) Define: Spring tide and Neep tide.

**2. Write short notes on *any five* from the following:**

**3×5= 15**

- a) Structure of the Atmosphere.
- b) Heat budget of the Earth.
- c) Characteristics of Jet Stream.
- d) Influence of Air masses on Weather.
- e) Weather Conditions associated with a Warm front.
- f) Difference between Koppen and Thronwaite classification of climate.
- g) Causes and Consequences of Global Warming.

**3. Answer *any five* from the following:**

**5×5= 25**

- a) What is Inversion of temperature? What are the conditions necessary for Temperature inversion? Explain types and significance of temperature Inversion.
- b) Discuss about the life in the rainy tropics. Give example.
- c) Discuss briefly about horizontal distribution of air pressure and pressure belts with the help of diagram.
- d) Describe about the origin and development of Monsoon. How monsoon impacts on world climate.
- e) Discuss briefly about the origin of Ocean basin. Give diagram in support.
- f) What are coral reefs? Explain their types and conditions necessary for the growth of Coral reefs.
- g) Discuss about the effects of Tides and Ocean currents. Give suitable example.

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

**Duration: 20 minutes**

**Marks – 20**

**PART A- Objective Type**

**I. Choose the correct options from following:**

**1 × 20 = 20**

1. In which of the following layers of atmosphere all weather phenomena occurs?
  - a) Troposphere
  - b) Stratosphere
  - c) Mesosphere
  - d) Thermosphere
2. The atmospheric temperature decreases only up to-
  - a) Mesosphere
  - b) Thermosphere
  - c) Stratosphere
  - d) Troposphere
3. When the sun is vertically above the tropic of cancer and tropic of Capricorn this situation is called-
  - a) Equinox
  - b) Solstice
  - c) Season
  - d) Spring
4. The difference between all incoming solar energy and all outgoing terrestrial energy by both short wave and long wave radiation is called-
  - a) Energy deficit
  - b) Net radiation
  - c) Energy surplus
  - d) None of these

5. Meridional is-

- a) The pole ward flow of heat
- b) The equator ward flow of heat
- c) Heat caused by solar rays
- d) None of these

6. Which of the following belt is called 'horse latitude'?

- a) Equatorial low pressure belt
- b) Sub tropical high pressure belt
- c) Sub polar low pressure belt
- d) None of these

7. Which of the following is not the part of tricellular meridonal circulation of the atmosphere?

- a) Tropical Hadley cell
- b) Mid- Atlantic Cell
- c) Polar cell
- d) None of these

8. The concept of Jet stream is related with –

- a) Tropical Easterly Jet Stream
- b) Tropical Westerly Jet Stream
- c) Upper air circulation
- d) Lower air circulation

9. The process associated with the creation of new fronts is called-

- a) Front genesis
- b) Frontolysis
- c) Cold front
- d) Warm front

10. Willy-willy blows in-

- a) Japan
- b) Australia
- c) USA
- d) China

11. In the temperate cyclones the winds blow-

- a) From the periphery towards the center
- b) From the center towards the periphery
- c) From the both side
- d) None of these

12. Cs stands for-

- a) Mediterranean type of climate
- b) West European type of climate
- c) Monsoon type of climate
- d) None of these

13. Thornthwaite new schemes is based on-

- a) Vegetation zone
- b) Potential evapotranspiration
- c) Humidity indices
- d) None of these.

14. Cryphytes vegetation is found in-

- a) Taiga region
- b) Steppe region
- c) Tundra region
- d) Mediterranean region

15. Why the salinity is found high in the tropics than the Equator while both the areas record high rate of evaporation?

- a) Dry air is found over the Tropics
- b) Wet air is found in the tropics
- c) Salinity increases towards poles
- d) None of these

16. Which of the following factors affect the distribution of temperature of the ocean water?

- 1. Latitudes 2. Unequal distribution of land and water
- 3. Prevailing winds 4. Oceanic currents

Select correct answer from the code given below-

**Codes:**

- a) 1, 2 and 3
- b) 2 and 3 only
- c) 1 and 4 only
- d) All the above

17. A ring of narrow growing corals of horse shoe shape and crowned with palm trees are called-

- a) Fringing reef
- b) Barrier reef
- c) Atoll
- d) None of these.

18. Which of the following current affect the summer monsoon-?

- a) Peru current
- b) Kurile current
- c) Brazil current
- d) El-Nino current

19. Isohalines are –

- a) The lines that join the places of equal rainfall
- b) The lines that join the places of equal salinity
- c) The lines that join the places of equal temperature
- d) None of these

20. The sediments of continental origin are called-

- a) Terrigenous
- b) Volcanic
- c) Marine plants
- d) None of these

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