MA/M.Sc. GEOGRAPHY
FIRST SEMESTER (Repeat)
CLIMATOLOGY & OCEANOGRAPHY
MGE-102

(Use separate answer scripts for Objective & Descriptive)

Duration: 3 hrs.   Full Marks: 70

(PART-A: Objective)

Time: 20 min.   Marks: 20

Choose the correct answer from the following: *1x20=20*

1. The cold and dense downslope wind flowing from the mountain slope during the night is known as:
   a. Anabatic wind   b. Khamsin
   c. Harmatten   d. Katabatic

2. Among the following gases which is responsible for global warming?
   a. Oxygen   b. Nitrogen
   c. Carbon-di-oxide   d. Helium

3. Which of the following is the second most layer of the atmosphere from the earth surface?
   a. Troposphere   b. Stratosphere
   c. Mesosphere   d. Thermosphere

4. Which instrument is used to measure the relative humidity in air?
   a. Hydrometer   b. Hygrometer
   c. Hygrograph   d. Barometer

5. What is the cause of low pressure in equatorial region?
   a. High temperature   b. Air convergence
   c. High humidity   d. High pressure

6. Which of the following ocean current is found in the southern hemisphere?
   a. Oyashio current   b. West wind drift
   c. Gulf stream   d. Canaries current

7. Which of the following is not a relief feature of ocean floor?
   a. Hanging valley   b. Atoll
   c. Guyots   d. Seamount

8. During El Nino period the temperature rises rapidly once in three to eight years along the coast of_____.
   a. Peru and Equator   b. Spain and France
   c. India and Pakistan   d. China and Japan

9. The difference between maximum and minimum temperature of the day is called:
   a. Terrestrial radiation   b. Diurnal range of temperature
   c. Annual range of temperature   d. Insolation

10. In winter the western cyclonic disturbances originates from which sea?
    a. Mediterranean sea   b. Indian sea
    c. Caspian sea   d. Arabian sea

11. 'Kuroshio' current is a oceanic current of_____.
    a. South Atlantic ocean   b. North Pacific ocean
    c. North Atlantic ocean   d. Indian ocean

12. The sea bed sloping gradually and bordering the continent is known as:
    a. Continental platform   b. Continental slope
    c. Continental shelf   d. Coast

13. Which of the following ocean has the shape of English alphabet 'S'?
    a. Pacific ocean   b. Atlantic ocean
    c. Indian ocean   d. Arctic ocean

14. The deepest ocean of the world is_____.
    a. Arctic ocean   b. Pacific ocean
    c. Indian ocean   d. Atlantic ocean

15. El Nino is a:
    a. Sea storm   b. Tropical disturbances
    c. A warm ocean current   d. A type of Typhoon

16. Which of the following is not a cold oceanic current?
    a. Canary current   b. Humboldt current
    c. Oyashio current   d. Brazil current

17. Which of the following is not a function of Remote Sensing in Oceanography
    a. To access water quality.
    b. To measure temperature at different depth.
    c. To find out vegetation coverage of the land.
    d. To identify Potential fishing zone.

18. Nor westerlies in Assam is known as:
    a. Bohag bihu   b. Mango shower
    c. Bordoi cheerha   d. Kal baisakhi

19. In Thornthwaite climatic classification he considered _____as important climatic data for classification.
    a. Atmospheric pressure   b. Evapotranspiration
    c. Temperature   d. Relative humidity

20. Secondary circulation in atmosphere consists of
    a. Tropical cyclone   b. Sea breeze
    c. Trade winds   d. Polar easterlies

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[PART-B :Descriptive]

Time: 2 hrs. 40min.   Marks: 50

[Answer question no.1 & any four (4) from the rest]

1. Explain the structure and composition of the atmosphere with appropriate sketches.   5+5=10

2. Classify Indian climate as per Koppen's climatic classification and mention any three causes of climate change.   7+3=10

3. Explain the various agricultural practices causing air pollution and suggest appropriate measures to tackle these problems.   6+4=10

4. What do you mean by El Nino? How El Nino is changing the climatic conditions of the earth?   3+7=10

5. Write in detail the meaning and scope of the subject oceanography.   5+5=10

6. Prepare a sketch on the ocean dynamics showing cold currents and warm currents. Explain the role of temperature and salinity on ocean current.   3+3+4=10

7. Mention the various marine resources of the earth and suggest appropriate measures for its conservation.   5+5=10

8. Explain how application of GIS and Remote Sensing helps in oceanographic studies.   10

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