

MGS 454

Second Semester M.Sc. Degree Examination, September/October 2022 MARINE GEOLOGY (CBCS) Meteorology and Climatology

Time: 3 Hours Max. Marks: 70

Instruction: Answer **all** the questions.

- I. Define/State the following: (10×1=10)
 - 1) Meteorology
 - 2) Precipitation
 - 3) Geostrophic winds
 - 4) Jet streams
 - 5) Cloud burst
 - 6) Meteorological hazards
 - 7) Green house gases
 - 8) Climatology
 - 9) Pollution
 - 10) Cyclones.
- II. Write short notes on **any five** of the following:
 - 11) Significance of Meteorology
 - 12) Earth's Radiation balance
 - 13) Land-sea breezes
 - 14) Thunder storms
 - 15) Causes for climate variation
 - 16) Climate modeling
 - 17) Floods
 - 18) Climatic zones of India.

 $(5 \times 4 = 20)$

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III. Answer any four of the following:

 $(4 \times 5 = 20)$

- 19) Explain coupled ocean-atmosphere system.
- 20) Describe general weather system of India.
- 21) Discuss the utilities of Satellite in meteorology.
- 22) Explain climatic variations due to solar output.
- 23) Explain seasonal variations in the temperature.
- 24) Explain the distribution of precipitation over India.

IV. Answer any two of the following:

 $(2 \times 10 = 20)$

25) a) Explain the Global Monsoon system in detail.

OR

- b) Discuss weather monitoring and describe in detail weather modifications.
- 26) a) Give a detailed note on the intergovernmental panel on climate changes.

OR

b) Give a detailed explanation on the classification of continental and oceanic climates.