

2024
SRMUJ
1st Semester Examination
M.Sc.
GEOGRAPHY
GEO-103
Climatology

Full Marks: 40

Time: 2 Hours

The figures in the margin indicate full marks. Candidates are required to give their answers in their own words as far as practicable.

1. Answer any four from the following questions: 2×4

- a) What is hydrostatic equilibrium?
- b) Why is the mean temperature of Bay of Bengal higher than Arabian sea?
- c) What is Mascarene High?
- d) What is 'Pineapple Express'?
- e) Identify some characteristics of the highland climate.
- f) What is IOD?
- g) Differentiate between barotropic and baroclinic surface.

2. Answer any four from the following questions: 8×4

- a) What is the index cycle of Jet Stream? Discuss the characteristics of different types of Jet Stream. 4+4
- b) Discuss the types of atmospheric stability and their relation to adiabatic processes.
- c) How does ENSO affect Indian Summer Monsoon variability? Explain the role of sea surface temperature (SST) anomalies in developing different El-Nino regions. 4+4
- d) Illustrate the maritime influence on coastal weather. Explain the impacts of the Holocene Climatic Optimum. 4+4
- e) Explain the mechanism of thunderstorm formation and describe its weather conditions.
- f) Discuss the evidences of past climate change.