

Ex./UG/GEOG/C-305/32/2019

BACHELOR OF SCIENCE EXAMINATION, 2019

(2nd Year, 1st Semester)

GEOGRAPHY (HONOURS)

Climatology

Paper - C 305 T

Time : Two hours

Full Marks : 50

Use a separate answer script for each group.

GROUP - A

Answer any *two* questions. 10x2=20

1. State the nature, composition and layering of the atmosphere. 3+3+4
2. Describe the different types of temperature inversion occurring in the atmosphere. What is Isonomalus temperature ? 8+2
3. Mention the major controlling factors of wind motion. Discuss the general pattern of global atmospheric circulation with special reference to meridional and zonal wind movements. 3+7
4. Explain the life cycle of a temperate cyclone with special reference to jet stream movements. Define vorticity. 8+2

(Turn over)

(2)

GROUP - B

Answer any *two* questions. 5x2=10

5. Explain the Index cycle of the Jet Stream.
6. Mention the conditions favourable for the formation of conditional instability in the atmosphere.
7. Write a short note on the scheme of climatic classification of Köppen.
8. Explain the Heat budget of the atmosphere.

GROUP - C

Answer any *ten* questions. 10x2=20

9. What is baroclinic instability ?
10. Mention the Stephan-Boltzaman law of radiation.
11. Why does the sky look red during sunset ?
12. Provide a precise definition of 'greenhouse effect'.
13. What is Rayleigh scattering ?
14. Mention the classes of Safir-Simpson scale.

(3)

15. What are tropical westerlies ?
16. Why is the magnitude of Coriolis force highest at the poles ?
17. What is a stationary front ?
18. What is an ice crystal nucleus.
19. What is a storm surge ?
20. What is a 'SO-Index' ?
21. What is an Atmospheric window ?
22. What is frontogenesis ?
23. What is an air mass ?

— X —