

West Bengal State University
B.A./B.Sc./B.Com. (Honours, Major, General) Examinations, 2013

PART - II

GEOGRAPHY — HONOURS

Paper -III

Duration : 4 Hours]

[Full Marks : 100

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Group - A

(Climatology)

Category - A

Answer any *two* questions within 600 words each. 2 × 10 = 20

1. Define atmosphere. What are the different layers of atmosphere ? Discuss the layers of the lower atmosphere. 2 + 2 + 6
2. What is inversion of temperature ? What are the different types of temperature inversion ? Explain how a ground inversion occurs. 2 + 4 + 4
3. Define precipitation. Explain the Bergerom-Findeisen theory of raindrop formation. 2 + 8
4. What are the differences between tropical and extratropical cyclones ? Describe mid-latitude cyclones mentioning the Polar Front theory. 4 + 6

Category - B

Answer any *four* questions within 150 words each. 4 × 5 = 20

5. What do you understand by the heat budget of the earth ?
6. Mention the characteristics of Jet Stream.
7. Explain the differences between the normal lapse rate and adiabatic cooling.
8. What are the major characteristics of monsoon wind in India ?

9. "Precipitation is an important basis of climatic classification." Explain.
10. Describe the characteristics of tropical cyclones.
11. What is isotherm ? What are the factor affecting the general trend of isotherms globe ? 1

Group - B

(Soil Geography)

Category - A

Answer any *one* question within 600 words.

1 × 10 =

12. Distinguish between soil structure and soil texture. Analyse the importance of the two properties on plant growth. 6
13. Describe and explain the processes of profile development in Chernozem soil.

Category - B

Answer any *four* questions within 150 words each.

4 × 5 =

14. How does organic matter form in the soil ?
15. What are zonal, azonal and intra-zonal soils ? Give examples.
16. How does climate influence the growth of soil ?
17. Why is laterite considered as a zonal soil type ?
18. "Lower the pH value of soil, greater the acidity and vice-versa". Explain.
19. What is Podsolization ?
20. Distinguish between solum and regolith.

Group - C

(Biogeography)

Category - A

Answer any *one* question within 600 words.

1 × 10 =

21. Describe the components of the ecosystem from the trophic and structural standpoint.
22. Define biome. Mention the major biomes of the world. Describe the characteristics of Temperate grassland biome. 1 + 2 =

Category - B

Answer any *four* questions within 150 words each. $4 \times 5 = 20$

23. Give a comparative account of grazing and detritus food chain.
24. Describe the carbon cycle with diagram.
25. Distinguish between food chain and food web.
26. Distinguish between ecotone and niche.
27. Why is the Tropical rain forest endowed with high diversity of species ?
28. Distinguish between afforestation and social forestry.
29. Distinguish between consumer and decomposer.