

West Bengal State University
B.A./B.Sc./B.Com (Honours, Major, General) Examinations, 2014

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. Discuss the characteristics of the different layers of the atmosphere.
2. Explain the Tri-cellular Model of General Circulation.
3. Discuss the origin, structure and characteristics of Tropical cyclones.
4. Explain the monsoon circulation over the Indian sub-continent with special reference to the jet stream.

Category - B

Answer any *four* questions within 150 words each :

4 × 5 = 20

5. Discuss any five factors affecting insolation.
6. Explain how ground inversion occurs.
7. Distinguish between barotropic and baroclinic conditions of the atmosphere.
8. Discuss the greenhouse effect on global climate.
9. Explain the heat budget of the earth.
10. Discuss different forms of condensation.
11. What are the bases of Koppen's classification of world climate ?

Group - B**(Soil Geography)****Category - A**

Answer any *one* question within 600 words : 1 × 10 = 10

12. Explain with example how soil profiles differ under varying conditions of climate and parent material.
13. What are zonal, azonal and intra-zonal soils ? Why is laterite considered as a zonal soil type ? Explain the mechanism of laterite soil formation. 3 + 1 + 6

Category - B

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

14. Describe an idealized soil profile.
15. Differentiate between eluviation and illuviation.
16. Discuss the role of organic matter in augmenting soil fertility.
17. Explain why pH4 is more acidic than pH6.
18. Under what conditions is podzol soil formed ?
19. Mention the factors responsible for soil erosion.
20. Why is chernozem called an 'incompletely leached soil' ?

Group - C**(Biogeography)****Category - A**

Answer any *one* question within 600 words : 1 × 10 = 10

21. What is meant by biogeochemical cycle ? Describe the nitrogen cycle with diagram. 3 + 7
22. Define a biome and mention the major biomes of the world. Describe the distribution and characteristics of Tiaga biome. 3 + 7

Category - B

Answer any *four* questions within 150 words each :

4 × 5 = 20

23. Distinguish between Food chain and Food web.
 24. Differentiate 'biomass pyramid' from 'energy pyramid'.
 25. Why is the Tropical Rain Forest endowed with a high diversity of species ?
 26. Mention the principles of Man and Biosphere Programme.
 27. Describe the characteristics of Temperate Grassland biome.
 28. Explain that energy flow in the ecosystem is unidirectional and non-cyclic.
 29. Mention the importance of Tiger Project in India.
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