

B.A./B.Sc./Part-II/Hons./GEOA-III/2017



WEST BENGAL STATE UNIVERSITY
B.A./B.Sc. Honours, PART-II Examinations, 2017

GEOGRAPHY-HONOURS

PAPER-GEOA-III

Time Allotted: 4 Hours

Full Marks: 100

*The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.*

Group-A

Category-A

Answer any two questions from the following within 600 words each 10×2 = 20

1. What are the major manmade Green House Gases (GHG) as identified by Kyoto Protocol (1997)? Describe their sources, present amount in the atmosphere and global warming potentiality. What is polar stratospheric cloud? 8+2
2. Discuss the characteristics of Ionosphere. What is 'Aerosol'? Describe its positive and negative effects on environment. 4+2+4
3. What is the index cycle of a Jet Stream? Describe Summer Monsoon wind in relation to Jet Stream. 3+7
4. Describe Thornthaiter's Climatic Classification (1998) in brief. 10

Category-B

Answer any four questions from the following within 150 words each 5×4 = 20

5. Explain the differences between the normal lapse rate and adiabatic cooling.
6. What are the factors affecting the general trend of Isotherms on globe?
7. Discuss the role of Rossby waves in transfer of heat in the mid latitude region.
8. How does Coriolis force vary with latitude?
9. Distinguish between “freezing nuclei” and “condensation nuclei”.
10. What are the bases of Koppen’s classification of world climate?
11. Distinguish between the characteristics of warm front and cold front of temperate cyclone.

Group-B

Soil Geography

Category-A

Answer any one question from the following within 600 words 10×1 = 10

12. Define soil structure. Describe characteristics of different soil structures and mention the impact of structure on the productivity of soil. 1+5+4
13. “Laterite and podzol are both pedalfers but their profile characteristics are different”- Elucidate. 10

Category-B

Answer any four questions from the following within 150 words each 5×4 = 20

14. How does organic matter affect soil properties?
15. Distinguish between soil erosion and land degradation.
16. Explain why pH 4 is more acidic than pH 6.
17. Why does moisture holding capacity vary from soil to soil?
18. How does 'Hardpan' form?
19. Why is alluvial regarded as an immature soil?
20. Distinguish between leaching and capillary action.

Group-C

(Bio-geography)

Category-A

Answer any one question from the following within 600 words 10×1 = 10

21. What are the principles of Man and Biosphere Programme by UNESCO? 7+3
Mention the importance of Tiger Project in India.
22. Describe the basic ecological principles of ecosystem. What is "dynamic equilibrium" in ecosystem? 7+3

Category-B

Answer any four questions from the following within 150 words each $5 \times 4 = 20$

23. Distinguish between reserve forest and protected forest.
24. What are the major criteria for defining "biodiversity hotspot region"? Give two examples of outside India.
25. Define with examples:
(i) Endemic species (ii) Endangered species (iii) Vulnerable species.
26. What are the different stages of ecological succession?
27. Discuss the plant and animal community of temperate deciduous biome.
28. Distinguish between nitrification and denitrification processes.
29. What are the different faunal regions in the world?