



**WEST BENGAL STATE UNIVERSITY**  
B.A./B.Sc. Honours 5th Semester Examination, 2022-23



**GEOADSE01T-GEOGRAPHY (DSE1/2)**

**SOIL AND BIOGEOGRAPHY**

Time Allotted: 2 Hours

Full Marks: 50

*The figures in the margin indicate full marks.  
Candidates should answer in their own words and adhere to the word limit as practicable.  
All symbols are of usual significance.*

**FOR REGULAR SYLLABUS**

**CATEGORY-A**

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

1. 'Laterite and Podzol are both Pedalfers but their profile characteristics are different' — Elucidate. 10
2. Give an account of soil erosion in humid and semiarid regions. How can such erosion be arrested? 7+3
3. Describe the geographical extent and characteristic feature of Tropical Rain Forest Biome. 10

**CATEGORY-B**

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

4. How human activities influence soil transformation?
5. Differentiate between eluviation and illuviation.
6. Discuss the impact of soil texture on fertility of soil with suitable examples.
7. Explain energy pyramid with suitable illustration.
8. Distinguish between food chain and food web.
9. What is the importance of carbon-di-oxide cycle in reference to environment?
10. Explain the role of decomposer in an ecosystem.

**CATEGORY-C**

**Answer any five questions from the following (within 50 words each) 2×5 = 10**

11. How does solum differ from regolith?
12. What is C:N ratio?
13. What is mature soil?
14. Mention the geographical location of Taiga Biome.
15. What is the significance of NPK?

16. What is Red Data Book?
17. What is meant by 'net primary productivity'?
18. Define polypedon.
19. What is meant by rill and gully erosion?

**FOR TRUNCATED SYLLABUS**

**CATEGORY-A**

**Answer any two questions from the following (within 600 words each)**  $10 \times 2 = 20$

1. Explain the development of soil profile in chernozem soil along with reasons behind such formation.  $7+3$
2. Highlight the role played by man as an active agent of soil formation. State some suitable measures for mitigation of soil degradation.
3. Define Biome. Discuss the Geographical extent and characteristics of Grassland Biome.  $2+8$

**CATEGORY-B**

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

4. Distinguish between zonal and azonal soil.
5. Classify soil structure.
6. Explain the detritus food chain with suitable example.
7. How does soil pH effect on plant growth?
8. Explain the biomass pyramid with suitable examples.
9. Differentiate between 'niche' and 'habitat'.
10. Discuss about the vertical stratification of vegetation of the Tropical Rainforest Biome.

**CATEGORY-C**

**Answer any five questions from the following (within 50 words each)**  $2 \times 5 = 10$

11. What is soil catena?
12. What is immature soil?
13. What is the importance of soil porosity?
14. What is Green Data Book?
15. Mention two causes of soil erosion.
16. What is meant by 'net primary productivity'?
17. What is C:N ratio?
18. How does solum differ from regolith?
19. Write down the concept of BOD.

-----x-----