



WEST BENGAL STATE UNIVERSITY
B.A./B.Sc. Honours 5th Semester Examination, 2023-24

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.*

CATEGORY-A

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

1. Describe the process of profile development in grassland areas and discuss the reasons behind such formation with special reference to the role of organic matter. 6-4
2. Define the concept of land capability. Discuss the principles of soil classification as proposed by the USDA. 3-7
3. Critically discuss a terrestrial ecosystem with its energy exchange process. What are the characteristics of a Taiga Biome? 5-5

CATEGORY-B

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

4. Explain the factors responsible for a good structural formation in soil.
5. What is the significance of nitrogen cycle in Biosphere?
6. What is the role of parent material in soil formation?
7. Explain the principles of food chain in the context of a pond ecosystem.
8. Podzol is a poor soil for agriculture. — Explain.
9. Write down the principles of 'Man and Biosphere' Programme.
10. Why is Tropical rainforest biome rich in biodiversity?

CATEGORY-C

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

11. What are the autotrophs in the ecosystem?
12. Mention the significance of soil porosity.
13. How does soil pH affect soil fertility?
14. Define soil erosion.
15. Differentiate entisols and vertisols.
16. Mention two major characteristics of laterite soil.
17. Delimit the geographical location of Grassland Biomes.
18. What is 'wilting point'?
19. Define ecotone.