

**2021/TDC (CBCS)/EVEN/SEM/
EESSEC-601T/069**

**TDC (CBCS) Even Semester Exam.,
September—2021**

ECOLOGY AND ENVIRONMENTAL SCIENCE

(6th Semester)

Course No. : EESSEC-601T

(Ecosystem Analysis and Biodiversity)

Full Marks : 50

Pass Marks : 20

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

SECTION—A

Answer any *fifteen* of the following questions :

1×15=15

- 1. Give an example of a grassland ecosystem.**
- 2. What is lotic ecosystem?**
- 3. Write the scientific name of a plant of mangrove ecosystem.**

4. Who coined the term 'ecosystem'?
5. Define ecosystem.
6. What do you mean by agro-ecosystem?
7. What are trophic levels?
8. Give an example of a man-made ecosystem.
9. What is 10% law?
10. What is the shape of pyramid of numbers in grassland ecosystem?
11. Name a nitrifying bacteria.
12. What are the primary consumers of a grassland ecosystem?
13. What is phenophase?
14. What is epilimnion?
15. Write the formula of density of population.
16. Who proposed polyclimax theory?
17. What is fidelity?

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18. What is a quadrat?
19. Define nudation.
20. Who first used the term 'succession'?
21. What are lichens?
22. Define biome.
23. What are sedges?
24. What is migration?
25. What do you mean by *ex-situ* conservation?
26. Write the full form of IUCN.
27. Name the largest botanical garden in India.
28. Name a Biosphere Reserve of North-East India.
29. Define ethnobiology.
30. Name an endangered animal of Assam.

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SECTION—B

Answer any *five* of the following questions : $2 \times 5 = 10$

31. Name five macrophytes of a pond ecosystem.
32. Mention two adaptive features of the plants of mangrove ecosystem.
33. What do you mean by biogeochemical cycles?
34. Name two radioisotopes.
35. Write a brief note on pyramid of energy.
36. Define frequency of population.
37. Define the terms 'psammophytes' and 'halophytes'.
38. What is ecesis?
39. What are gene banks?
40. What do you mean by agroforestry?

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SECTION—C

Answer any *five* of the following questions : 5×5=25

41. Write the characteristics of a tropical evergreen forest.
42. Describe the structure of a grassland ecosystem.
43. Describe the carbon cycle in nature.
44. Describe two methods of measuring primary productivity of an ecosystem.
45. Describe the vertical stratification in a forest community with necessary diagrams.
46. Give an account of the qualitative characters of a community.
47. Describe the general process of succession.
48. Write notes on monoclimax theory and polyclimax theory.
49. Write a note on biosphere reserves.
50. Describe the importance of plant tissue culture in the *ex-situ* conservation of rare and endangered plants.

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