

**2024/FYUG/EVEN/SEM/  
EESDSM-151T/039**

**FYUG Even Semester Exam., 2024**

**ECOLOGY AND ENVIRONMENTAL SCIENCE**

**( 2nd Semester )**

Course No. : EESDSM-151T

**( Basic Concepts of Ecology )**

Full Marks : 70

Pass Marks : 28

Time : 3 hours

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

**SECTION—A**

Answer any ten of the following questions :

2×10=20

1. What are ecozones?
2. Define biosphere.
3. What is synecology? Give one example.
4. What are survivorship curves?

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5. What are *r*-selection species? Give one example.
6. What are *K*-selection species? Give one example.
7. What is a keystone species? Give one example.
8. What is an ecotone? Give one example.
9. What do you mean by community?
10. What is food chain? Give one example.
11. What is food web? Give one example.
12. What is ecosystem?
13. What is biogeochemical cycle?
14. What are the different forms of nitrogen available for plants?
15. What is the available form of phosphorus for plants?

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( Continued )

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SECTION—B

Answer any *five* of the following questions :

10×5=50

16. What do you mean by biomes? Describe briefly the characteristic features of any two terrestrial biomes. 2+4+4=10
17. Write short notes on the following : 5×2=10
  - (a) Liebig's law of minimum
  - (b) Shelford's law of tolerance
18. Describe the various growth patterns of population of different organisms in our ecosystems. 10
19. Write short notes on the following : 5×2=10
  - (a) Density-dependent factors of population growth
  - (b) Life table
20. Describe briefly the various types of species interactions which are constantly occurring in our ecosystems. 10
21. Write short notes on the following : 5×2=10
  - (a) Ecological succession
  - (b) Edge effect

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( Turn Over )

22. Discuss briefly the various components of ecosystem. 10
23. Write short notes on the following : 5×2=10
- (a) Ecological efficiencies
  - (b) Ecological pyramids
24. Describe the hydrological cycle with suitable diagrammatic illustration. 7+3=10
25. Describe the carbon cycle with suitable diagrammatic illustration. 7+3=10

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