

**B. Sc. DEGREE EXAMINATION, NOVEMBER 2023**  
**BRANCH V (a) – PLANT BIOLOGY AND PLANT BIOTECHNOLOGY**  
**FIFTH SEMESTER**

**COURSE : MAJOR – CORE**  
**PAPER : ECOLOGY AND ENVIRONMENTAL BIOTECHNOLOGY**  
**SUBJECT CODE : 19BT/MC/EE54**  
**TIME : 3 HOURS** **MAX.MARKS:100**

**SECTION –A**

**(18x1=18 )**

**I. CHOOSE THE CORRECT ANSWER:**

1. The major cause of environmental degradation is
  - a) Bio-magnification
  - b) Nitrogen deposition
  - c) Quorum quenching
  - d) Lyophilization
2. Biomagnification of DDT causes decline in bird population by
  - a) Thinning of egg shells
  - b) Disturbing Ca metabolism
  - c) Pre mature breaking of egg shells
  - d) All of the above
3. What do the arrows in a food web represent?
  - a) Flow of energy
  - b) Producer
  - c) Consumer
  - d) Water flow
4. The first trophic level consists of
  - a) Energy
  - b) Producer
  - c) Consumer
  - d) Water flow
5. Which trophic level are secondary consumers?
  - a) 1st level
  - b) 2nd level
  - c) 3 rd Level
  - d) 4 th level

**II. FILL IN THE BLANKS**

6. Organisms which do not make their own food is called -----.
7. An ecosystem includes both -----.
8. Accumulation of non-biodegradable pesticides in the food chain in increasing amount at each higher trophic level is known as-----.
9. Flow of energy in an ecosystem is always -----.
10. Depletion of ozone is mainly due to-----.

**III. MATCH THE FOLLOWING**

- |                                     |                              |
|-------------------------------------|------------------------------|
| 11. Bio accumulation                | a. EIA                       |
| 12. Environmental impact Assessment | b. Chemical pollution        |
| 13. Bio indicators                  | c. Microbe solubilize metals |
| 14. Bioremediation                  | d. Lichens                   |
| 15. Environmental risk              | e. DDT                       |

**IV. TRUE OR FALSE**

16. Environment protection act started in 1985.
17. Acidophilic Bacteria are involved in Bioleaching
18. Typha species involved in phytoremediation.

**V. ANSWER ANY SIX IN 50 WORDS:****(6 x 3=18)**

19. Floristic composition
20. Periodicity
21. Life forms
22. Producers
23. Consumer
24. Biomagnification
25. Biotransformation
26. Xerophytes
27. Halophytes

**SECTION - B****VI. ANSWER ANY 4 OUT OF 6 QUESTIONS IN 200 WORDS EACH:****(4x6=24)**

28. Write short notes on Quadrat method
29. Discuss briefly about the aquatic ecosystem
30. Comment on Bio accumulation
31. Give an account of Bioleaching
32. Discuss the term Phytoremediation
33. Explain the Bio indicators with an example.

**SECTION - C****VII. ANSWER ANY 2 OUT OF 4 QUESTIONS IN 1000 WORDS EACH:****(2x20=40)**

34. Write an essay on Quantitative analysis of Plant communities.
35. Give a detailed account on Ecological adaptations of Hydrophytes.
36. Write an essay on Environmental quality monitoring of air and water.
37. Give a detailed account on Terrestrial ecosystem.

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