

**M. Sc DEGREE END SEMESTER EXAMINATION - OCT. 2020 : FEBRUARY 2021****SEMESTER 1 : ENVIRONMENTAL SCIENCE****COURSE : 16P1EVST01 : FUNDAMENTALS OF ENVIRONMENTAL STUDIES***(For Regular - 2020 Admission and Supplementary - 2016/2017/2018/2019 Admissions)*

Time : Three Hours

Max. Marks: 75

**PART A****Answer any 10 (2 marks each)**

1. State Gaia Hypothesis.
2. Write a short note on 'Pyramid of energy'.
3. What is density dependent action in population control?
4. Give a short description on 'Ecotone and Edge effect'.
5. Write a note on ecotone.
6. What are the principles of sustainable development?
7. What are the factors influencing physical weathering?
8. List out the advantages of using bio-filters in pollution control.
9. Comment on the principles of toxicology.
10. What is Kyoto Protocol?
11. List out any four environment conservation laws and rules in India.
12. What is the role of WRI?

**(2 x 10 = 20)****PART B****Answer any 5 (5 marks each)**

13. Explain the laws of thermodynamics that describe the behaviour of energy.
14. Explain Levin's model of meta population.
15. Briefly describe the characteristics of a Community.
16. Write any five applications of GIS in ecosystem monitoring.
17. Explain the functions of a bioreactor.
18. What are bioreactors? How is it useful in waste management?
19. Write a brief note on the Bhopal Gas Tragedy.
20. Write the importance of Wild life protection Act 1972.

**(5 x 5 = 25)****PART C****Answer any 2 (15 marks each)**

21. What are the three successive steps involved in the production process in an ecosystem?  
Explain the different methods used to measure the accumulated organic matter in an ecosystem.
22. Explain the importance of wetlands and add a note on the international initiatives for wetland conservation
23. Explain EIA and its techniques.
24. Discuss Global environmental problems and debates - past and present.

**(15 x 2 = 30)**