

Reg. No .....

Name .....

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

Time : Three Hours

Max. Marks: 75

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

1. State Gaia Hypothesis.
2. Write a short note on 'Pyramid of energy'.
3. Illustrate the 'J' shaped growth form.
4. Give a short description on 'Ecotone and Edge effect'.
5. What is 'Ecological guild'?
6. Briefly explain the process of soil formation.
7. Define 'Sustainable development'.
8. What is bioaugmentation?
9. Explain the role of biofilter in waste management.
10. Comment on the Wildlife Protection Act 1972.
11. Give a brief account on 'Biovillages'.
12. Comment on the functions of WWF.

(2 x 10 = 20)

**Section B****Answer any 5 (5 marks each)**

13. 'Phosphorus cycle' is an imperfect cycle. Why it is called so?
14. Explain Levin's model of meta population.
15. Briefly describe the characteristics of a Community.
16. What is "buffer action"? Explain the buffering action of soil.
17. Explain e-waste.
18. Discuss the aerobic and anaerobic methods of waste management.
19. Write a short note on 'Climate change'.
20. Give a comparative account on local, national and international NGOs with examples.

(5 x 5 = 25)

**Section C****Answer any 2 (15 marks each)**

21. What do you mean by primary productivity? Describe the methods used for measurement of productivity.
22. Explain the importance of wetlands and add a note on the international initiatives for wetland conservation
23. Describe the physical properties of soil.
24. What are the different types of toxicants. Explain dose-effect relationship in toxicology and comment on heavy metal toxicity.

(15 x 2 = 30)