



**MAR IVANIOS COLLEGE (AUTONOMOUS)**  
**THIRUVANANTHAPURAM**

Reg. No. :.....

Name :.....

**Fifth Semester B.Sc. Degree Examination, November 2016**

**First Degree Programme under CBCSS**

**Core Course: Botany – V**

**AUBO542: Environmental Studies and Phytogeography**

Time: 3 Hours

Max. Marks: 80

**SECTION – A**

*Write short notes on ALL the following.*

1. Sustainable development.
2. Productivity of an ecosystem
3. Keystone species.
4. Ecological niche.
5. Ecological indicators.
6. BOD.
7. Ecesis.
8. Minamata disease.
9. Vulnerable species.
10. Photochemical smog.

**(10 × 1 = 10 Marks)**

**SECTION – B**

*Answer any EIGHT questions, not exceeding one paragraph.*

11. What is soil degradation ? How it influences productivity ?
12. What are halophytes ? Mention any two ecological adaptations shown by halophytes.
13. What are hot spots ? Name the two major hot spots in India.
14. What are non – degradable pollutants ? How do they affect ecosystem ?
15. Name any four plant species commonly found in mangrove vegetation.

P.T.O.

1479

16. What is ecological amplitude ? How will you assess the adaptability of species based on this ?
17. Differentiate grazing food chain from detritus food chain.
18. Write a short note on the functions of ecosystem.
19. Mention any two differences between a sanctuary and a national park.
20. What are the consequences of global warming ?
21. Differentiate autogenic succession from allogenic succession.
22. What was Chipko movement ? Who was the leader of that movement ?

(8 × 2 = 16 Marks)

### SECTION – C

*Short essay type : Answer any SIX questions.*

23. Write a brief account on environmental (protection) act, 1986.
24. Why are non – conventional energy sources preferred to conventional energy for sustainable development ?
25. With the help of a diagram, explain the energy flow in a freshwater ecosystem.
26. Describe a grassland ecosystem with the help of a food web.
27. What is succession ? Mention the different stages in succession.
28. Mention any four national parks in India and the main animal protected in these national parks.
29. Write a short note on the distribution of mangroves in Kerala, its major threats and the need for conservation.
30. Give an account of deforestation and its impact on ecosystem.
31. Give a brief account on environment and human health.

(6 × 4 = 24 Marks)

### SECTION – D

*Long essay type : Answer any TWO questions.*

32. Explain the sources of water pollution and their impact on ecosystem. Add a note on the prevention and control of water pollution.
33. Write a detailed account on the significance of floral and faunal diversity, reasons for the loss of biodiversity and the conservation strategies for the protection of biodiversity.
34. Describe the vegetation types in India.
35. What are adaptations ? With suitable examples, explain the morphological, anatomical and physiological adaptations of xerophytes.

(2 × 15 = 30 Marks)

∫\*∫\*∫\*∫\*∫\*∫\*∫\*∫\*∫\*∫\*∫\*∫\*∫\*∫\*∫\*∫\*∫\*∫\*∫\*