Chapter 15
BIODIVERSITY AND CONSERVATION

ONE MARK QUESTIONS:

1. Define Biodiversity. (K)
2. Who popularized the term 'biodiversity'? (K)
3. What is genetic diversity? (K)
4. India has more than 50,000 different strains of rice. Mention the level of biodiversity it represents. (U)
5. Give an example for genetic diversity. (K)
6. Name an active chemical produced by medicinal plant *Rauwolfia vomitoria*. (K)
7. What is species diversity? (K)
8. What is ecological or ecosystem diversity? (K)
9. Among vertebrates, which group of animals has the highest number in global biodiversity? (K)
10. What is India's share (in percentage) in global species diversity? (K)
11. How many mega diversity countries are present in the world? (K)
12. Write the equation that describes species richness – area relationship. (U)
13. What are frugivorous animals? (K)
14. Who proposed the 'rivet popper" hypotheses? (K)
15. Name the forest which is referred to as the 'lungs of the planet'? (K)
16. How the current species extinction is different from the previous episodes of extinction? (K)
17. How does fragmentation of large habitats due to human activities lead to the decline of wildlife population? (U)
18. Give example for a species which has become extinct due to overexploitation. (K)
19. Name an alien species which has been introduced into India that has posed threat to native species in India. (K)
20. "Introduction of alien species causes biodiversity loss". Justify this statement with one appropriate example. (A)
21. What is co-extinction? (K)
22. Define bioprospecting. (K)
23. What are 'biodiversity hotspots'? (K)
24. How many biodiversity hotspots have been identified so far in the world? (K)
25. How many biodiversity hotspots have been identified in India? (K)
26. Why Western Ghats range is considered as one of the biodiversity hotspots? (A)
27. Name one biodiversity hotspot in India. (K)
28. What are endemic species? (K)
29. What is *in situ* conservation? (K)
30. Give an example for *in situ* conservation. (K)
31. What are sacred grooves? (K)
32. How are sacred grooves important in conserving biodiversity? (U)
33. What is *ex situ* conservation? (K)
34. Give an example for *ex situ* conservation. (K)
35. How cryopreservation helps in the conservation of biodiversity? (U)
36. Mention any one advanced technique used in *ex situ* conservation. (K)

TWO MARK QUESTIONS:

1. Define biodiversity. Write any two levels of biodiversity. (K)
2. Differentiate genetic diversity and species diversity. (U)
3. Differentiate genetic diversity and ecological diversity. (U)
4. Differentiate species diversity and ecological diversity. (U)
5. "India is rich in genetic diversity". Justify the statement by giving two examples. (A)
6. How do ecologists estimate the total number of species present in the world? (U)
7. Name the most species-rich taxonomic group among animals and mention its percentage within animal species. (K)
8. Write the major problems in completing the biological wealth inventory of India. (U)
9. Mention David Tilman's observation with respect to species richness in a community. (U)
10. Name any four recent extinct organisms as per IUCN Red list. (K)
11. Mention "The Evil Quartet" of biodiversity loss. (K)
12. Give examples of two species which have become extinct due to overexploitation. (K)
13. "Introduction of alien species causes biodiversity loss". Justify this statement with two appropriate examples. (A)
14. Write a note on co-extinction. (U)
15. List any two ecosystem services provided by biodiversity. (K)
16. Mention two biodiversity hotspots of India. (K)
17. Mention methods for conserving biodiversity. (K)
18. Differentiate *in situ* conservation and *ex situ* conservation. (U)
19. What is *ex situ* conservation? Mention two examples. (K)
20. What are sacred groves? Mention any two examples. (K)
21. Write any two advanced techniques used in *ex situ* conservation. (K)

THREE MARKS QUESTIONS:

1. Briefly explain the three levels of biodiversity. (U)
2. "Tropical rain forests have greater biodiversity compared to temperate forest". Justify with three reasons. (A)
3. Draw a graphical representation of species area relationship. (S)
4. Explain the species-area relationship of biodiversity according to Alexander Von Humboldt. (U)
5. In the formula Log S=Log C- Z log A to find out species-area relationship, what does 'S', 'A' and 'Z' stand for? (U)
6. Write the salient features of stable community with reference to biodiversity. (U)
7. Describe the "rivet popper" hypothesis. (U)
8. List out the three general effects of loss of biodiversity. (K)
9. Explain any three major causes of biodiversity loss. (U)
10. "Alien species invasion leads to extinction of indigenous species". Justify the statement by giving three appropriate examples. (A)
11. "There is a great need to conserve biodiversity". Justify with six reasons. (A)
12. Briefly explain narrowly utilitarian reason for conserving biodiversity. (U)
13. Briefly explain broadly utilitarian reason for conserving biodiversity. (U)
14. "Biodiversity plays a major role in providing many ecosystem services". Justify the statement with three reasons. (A)

FIVE MARKS QUESTIONS:

1. Define biodiversity. Explain the major causes of biodiversity loss. (U)
2. What are endemic species? Differentiate *in situ* conservation and *ex situ* conservation with examples. (U)
3. Explain species area relationship with graphical representation. (S)
4. Describe different ecosystem services provided by biodiversity. (U)