



Attempt questions first; check the separate key afterward. Show all working. Draw accurate figures where required.

A. Very short answers - 1 mark each

1. What is an ecosystem?
2. Identify living and nonliving parts of a pond ecosystem.
3. Name organisms that make food using sunlight.
4. Give two examples of producers in different habitats.
5. Name an animal that eats plants.
6. Name an animal that eats both plants and animals.
7. What is a food chain?
8. Construct one with grass, insect, frog and snake.

B. Short answers / practice - 2 marks each

9. Which organisms return nutrients from dead matter to soil?
10. Explain why they are essential.
11. Can several food chains connect into a food web?
12. Explain how one organism may occur in several chains.
13. What is a habitat?
14. Explain how a cactus is adapted to dry conditions.
15. Are all interactions between species harmful?
16. Explain mutual benefit using pollinators and flowering plants.
17. Name an interaction in which one organism hunts another.
18. Explain how predators can influence prey populations.
19. What is competition in an ecosystem?
20. Give an example of plants competing for resources.

C. Application / reasoning - 3 marks each

21. A pond has 60 observed fish, 15 of one species. Find that species' percentage.
22. Explain why counting once may not reveal the whole pond's biodiversity.
23. Can removing one species affect other species?
24. Predict effects of a sharp fall in pollinators.
25. What does biodiversity mean?
26. Explain why conserving habitats supports biodiversity.
27. In grass→rabbit→fox, identify producer and primary consumer.
28. Explain how loss of vegetation can affect both soil and animals.
29. A survey finds 8 butterfly species in one garden and 3 in another. Does this alone measure every aspect of biodiversity?
30. Why can excessive pesticide use affect animals not directly targeted?
31. Draw a food web with at least five organisms and explain two feeding links.
32. Does planting a single tree species recreate a diverse natural forest completely?
33. Compare plantation and natural-forest diversity.
34. What is an invasive alien species?
35. Prepare a local biodiversity observation plan and suggest conservation actions that avoid disturbing wildlife.

ANSWER KEY - Numerical / closed questions

- 3) Producers. 5) Example: deer. 6) Example: human or bear. 8) Grass→insect→frog→snake. 9) Decomposers. 11) Yes. 15) No. 17) Predation. 21) 25%. 23) Yes. 27) Grass; rabbit. 29) No. 32) No.