

Q1. Which of the following is a *biotic* component?

- a) Water
- b) Soil
- c) Sunlight
- d) Animals

Q2. Abiotic components include:

- a) Humans
- b) Trees
- c) Air
- d) Bacteria

Q3. What does a food chain show?

- a) The way plants grow
- b) Movement of the Sun
- c) How energy is passed from one organism to another
- d) How seeds disperse

Q4. Which one is the correct order in a food chain?

- a) Plant → Frog → Eagle → Snake
- b) Plant → Grasshopper → Frog → Snake → Eagle
- c) Eagle → Snake → Frog
- d) Frog → Plant → Snake

Q5. A food web is:

- a) A type of internet
- b) A single food chain
- c) Many food chains connected together
- d) Made by spiders

Q6. Producers are organisms that:

- a) Hunt other animals
- b) Break down waste
- c) Make food using sunlight
- d) Eat plants

Q7. Consumers include:

- a) Trees
- b) Bacteria
- c) Animals
- d) Soil

Q8. Decomposers help nature by:

- a) Producing seeds
- b) Cleaning dead plants and animals
- c) Hunting prey
- d) Growing in forests

Q9. An example of a decomposer is:

- a) Snake
- b) Eagle
- c) Fungi
- d) Grasshopper

Q10. Which of the following maintains balance in nature?

- a) Deforestation
- b) Pollution
- c) Ecosystem interactions
- d) Plastic use

Q11. Plants give _____ to animals.

- a) Carbon dioxide
- b) Oxygen
- c) Nitrogen
- d) Rain

Q12. Animals help plants by providing:

- a) Seed dispersal
- b) Sunshine
- c) Pollution
- d) Oil

Q13. Which of the following is harmful to nature's harmony?

- a) Recycling
- b) Reusing
- c) Hunting
- d) Planting trees

Q14. What is interdependence in nature?

- a) Ignoring each other
- b) Depending on machines
- c) Depending on each other for survival
- d) Only animals depending on plants

Q15. Which of the following causes climate change?

- a) Seed dispersal
- b) Deforestation
- c) Decomposition
- d) Interdependence

Q16. What should we avoid to protect nature's harmony?

- a) Plastic
- b) Solar power
- c) Rainwater harvesting
- d) Reuse of paper

Q17. What returns nutrients to the soil?

- a) Producers
- b) Consumers
- c) Decomposers
- d) Seeds

Q18. An ecosystem is:

- a) A place where animals live
- b) A type of soil
- c) A system where living and non-living things work together
- d) A part of the forest

Q19. Which practice helps protect the environment?

- a) Burning plastic
- b) Throwing waste in rivers
- c) Reusing materials
- d) Cutting trees

Q20. Which one is not a threat to nature's harmony?

- a) Hunting
- b) Climate change
- c) Planting trees
- d) Pollution

Assertion-Reason Questions (1 mark each)

Choose:

- A. Both A and R are true and R is the correct explanation of A.
- B. Both A and R are true but R is not the correct explanation of A.

C. A is true but R is false.
D. A is false but R is true.

Q21. A: All living things depend on each other.

R: Interdependence helps maintain balance in nature.

Q22. A: Decomposers help in cleaning the environment.

R: They eat other animals to survive.

Q23. A: Food chains and food webs are the same.

R: Food webs include many interconnected food chains.

Q24. A: Air is a biotic component.

R: Biotic components are non-living.

Q25. A: Deforestation can harm the balance of nature.

R: It reduces the number of trees that act as producers.

 **2 Case Study Questions (4 sub-questions each)**

Case Study 1: The Forest Trip

During a nature walk, the students observed a grasshopper eating leaves, a frog eating the grasshopper, and a snake eating the frog. The guide explained this was a food chain and part of nature's balance.

1. What is the role of the plant in this food chain?
2. Who is the primary consumer in the chain?
3. Which animal is a secondary consumer?
4. Why is this food chain important for nature?

Case Study 2: Protecting Nature

Ravi saw his family using plastic bags and throwing waste in the river. His teacher told him such actions disturb nature's harmony. Ravi decided to use cloth bags and plant more trees.

1. Name two actions that harm nature.
2. How can Ravi help restore nature's balance?
3. What should we use instead of plastic bags?
4. Why is planting trees important?