

CHAPTER 15



Our Environment

Multiple Choice Questions

- Which one of the following is an artificial ecosystem?
 - Pond
 - Crop field
 - Lake
 - Forest
- In a food chain, the third trophic level is always occupied by
 - carnivores
 - herbivores
 - decomposers
 - producers
- An ecosystem includes
 - all living organisms
 - non-living objects
 - both living organisms and non-living objects
 - sometimes living organisms and sometimes non-living objects
- In the given food chain, suppose the amount of energy at fourth trophic level is 5 kJ, what will be the energy available at the producer level?

Grass → Grasshopper → Frog → Snake → Hawk

 - 5 k J
 - 50 k J
 - 500 k J
 - 5000 k J
- Accumulation of non-biodegradable pesticides in the food chain in increasing amount at each higher trophic level is known as
 - eutrophication
 - pollution
 - biomagnification
 - accumulation

6. Depletion of ozone is mainly due to
- (a) chlorofluorocarbon compounds
 - (b) carbon monoxide
 - (c) methane
 - (d) pesticides
7. Organisms which synthesise carbohydrates from inorganic compounds using radiant energy are called
- (a) decomposers
 - (b) producers
 - (c) herbivores
 - (d) carnivores
8. In an ecosystem, the 10% of energy available for transfer from one trophic level to the next is in the form of
- (a) heat energy
 - (b) light energy
 - (c) chemical energy
 - (d) mechanical energy
9. Organisms of a higher trophic level which feed on several types of organisms belonging to a lower trophic level constitute the
- (a) food web
 - (b) ecological pyramid
 - (c) ecosystem
 - (d) food chain
10. Flow of energy in an ecosystem is always
- (a) unidirectional
 - (b) bidirectional
 - (c) multi directional
 - (d) no specific direction
11. Excessive exposure of humans to U V-rays results in
- (i) damage to immune system
 - (ii) damage to lungs
 - (iii) skin cancer
 - (iv) peptic ulcers
- (a) (i) and (ii) (b) (ii) and (iv)
(c) (i) and (iii) (d) (iii) and (iv)

18. What will happen if deer is missing in the food chain given below?

Grass → Deer → Tiger

- (a) The population of tiger increases
 - (b) The population of grass decreases
 - (c) Tiger will start eating grass
 - (d) The population of tiger decreases and the population of grass increases
- 19.** The decomposers in an ecosystem
- (a) convert inorganic material, to simpler forms
 - (b) convert organic material to inorganic forms
 - (c) convert inorganic materials into organic compounds
 - (d) do not breakdown organic compounds
- 20.** If a grass hopper is eaten by a frog, then the energy transfer will be from
- (a) producer to decomposer
 - (b) producer to primary consumer
 - (c) primary consumer to secondary consumer
 - (d) secondary consumer to primary consumer
- 21.** Disposable plastic plates should not be used because
- (a) they are made of materials with light weight
 - (b) they are made of toxic materials
 - (c) they are made of biodegradable materials
 - (d) they are made of non-biodegradable materials

Short Answer Questions

- 22.** Why is improper disposal of waste a curse to environment?
- 23.** Write the common food chain of a pond ecosystem.
- 24.** What are the advantages of cloth bags over plastic bags during shopping?
- 25.** Why are crop fields known as artificial ecosystems?
- 26.** Differentiate between biodegradable and non-biodegradable substances. Cite examples.

- 27.** Suggest one word for each of the following statements/ definitions
- The physical and biological world where we live in
 - Each level of food chain where transfer of energy takes place
 - The physical factors like temperature, rainfall, wind and soil of an ecosystem
 - Organisms which depend on the producers either directly or indirectly for food
- 28.** Explain the role of decomposers in the environment?
- 29.** Select the mis-matched pair in the following and correct it.
- | | | |
|----------------------|---|--|
| (a) Biomagnification | — | Accumulation of chemicals at the successive trophic levels of a food chain |
| (b) Ecosystem | — | Biotic components of environment |
| (c) Aquarium | — | A man-made ecosystem |
| (d) Parasites | — | Organisms which obtain food from other living organisms |
- 30.** We do not clean ponds or lakes, but an aquarium needs to be cleaned. Why?

Long Answer Questions

- 31.** Indicate the flow of energy in an ecosystem. Why is it unidirectional? Justify.
- 32.** What are decomposers? What will be the consequence of their absence in an ecosystem?
- 33.** Suggest any four activities in daily life which are eco-friendly.
- 34.** Give two differences between food chain and food web.
- 35.** Name the wastes which are generated in your house daily. What measures would you take for their disposal?
- 36.** Suggest suitable mechanism (s) for waste management in fertiliser industries.
- 37.** What are the by-products of fertiliser industries? How do they affect the environment?
- 38.** Explain some harmful effects of agricultural practices on the environment.