

Chapter 15: Our Environment

1. Every food chain in the ecosystem begins with..... which are the original source of food.

- (a) Saprophytes
- (b) Parasites
- (c) Producers
- (d) Herbivores

Answer: (c) Producers

Explanation: All green plants and few blue-green algae which can produce food by photosynthesis are called the producers.

2. We should reduce the use of the plastic bags, bottles etc. because:

- (a) They are not durable
- (b) They are non-biodegradable
- (c) They are made of toxic materials
- (d) They react with the atmospheric gases

Answer: (b) They are non-biodegradable

Explanation: Plastics bags and bottles come under the category of non-biodegradable products because they cannot be broken down by natural process and tend to damage the safety of the environment.

3. Among the following choose the correct option which contains only biodegradable items?

- i. Wood, paper, PVC
- ii. Paper, seeds, detergent,
- iii. Paper, animal excreta, wood
- iv. Wool, leaves, paper

(a) (i), (ii) and (iii)

(b) (i) and (iii)

(c) (ii), (iii) and (iv)

(d) (iii) and (iv)

Answer: (d) (iii) and (iv)

Explanation: All natural things produced by nature are biodegradable.

4. Which among the following statements is incorrect in view of the plants?

(a) They convert the solar energy into mechanical energy

(b) They prepare their food from organic compounds

(c) They are also called producers

(d) They are the initial source of energy in a food chain

Answer: (b) They prepare their food from organic compounds

Explanation: Plants prepare food from sunlight and inorganic constituents like carbon dioxide and water.

5. In a food chain the second trophic level is occupied by:

(a) Carnivores

(b) Autotrophs

(c) Herbivores

(d) Producers

Answer: (c) Herbivores

Explanation: Herbivores occupy the second trophic level after autotrophs or producers.

6. Green plants utilize percent of sun's energy to prepare their food by the process of photosynthesis?

- (a) 1 percent
- (b) 10 percent
- (c) 20 percent
- (d) 99 percent

Answer: (a) 1 percent

Explanation: The study of flow of energy between various ecosystems state that the autotrophs in a terrestrial ecosystem capture about 1% of the energy of sunlight that falls on their leaves and convert it into feed.

7. The process of accumulation of harmful chemical substances like pesticides, in the body of living organisms at each trophic level of a food chain is known as:

- (a) Biological magnification
- (b) Biological accumulation
- (c) Chemical magnification
- (d) Chemical accumulation

Answer: (a) Biological magnification

Explanation: The build-up of toxic and chemical constituents like pesticides, DDT, herbicides in the body of biotic organisms through food web/chain is bio-magnification.

8. Which of the following may be a conclusion of the excessive exposure of humans to sun's ultraviolet rays?

- i. Peptic ulcers
- ii. Eye disease like cataract
- iii. Damage to lungs
- iv. Skin cancer

(a) (i) and (iv)

(b) (ii), (iii) and (iv)

(c) (ii) and (iv)

(d) Only (iv)

Answer: (c) (ii) and (iv)

Explanation: Too much exposure to the ultraviolet rays in the sun can increase the risk of cataract and skin cancer.

9. Which among the following is a correct full form for DDT?

(a) Dichlorodiphenyltrichloroethane

(b) Dichlorodiphenyltetrachloroethane

(c) Dichlorodecaphenyltrichloroethane

(d) Dichlorodiethyltrichloroethane

Answer: (a) Dichlorodiphenyltrichloroethane

Explanation: The full form of DDT is Dichlorodiphenyltrichloroethane. It is known for its insecticidal properties.

10. If 100 J energy is available at the producer level in a food chain then the energy available to the secondary consumer will be:

(a) 10 J

(b) 0.1 J

(c) 1 J

(d) 0.01 J

Answer: (c) 1 J

Explanation: Producers convert sunlight into chemical energy and when one form of energy is changed to another, some energy is lost to the environment in forms which cannot be used again.

11. Which of the following radiations is responsible for the conversion of atmospheric oxygen to ozone?

- (a) Gamma radiations
- (b) Cosmic radiations
- (c) Infrared radiations
- (d) Ultraviolet radiations

Answer: (d) Ultraviolet radiations

Explanation: UV radiation is a highly damaging radiation, which when enters the environment can change atmospheric nitrogen into ozone.

12. The substance which is chiefly responsible for the depletion of ozone layer is:

- (a) CFCs
- (b) CH₄
- (c) DDT
- (d) O₃

Answer: (a) CFCs

Explanation: The use of chemicals like CFCs has endangered the ozone layer.

13. 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

Answer: (d) The population of tiger decreases and the population of grass increases

Explanation: If herbivores start missing, the producer population will increase and the population of carnivores will decrease dramatically.

14. Which of the following substances will not be converted to compost when added in a composting pit?

- (a) Waste paper
- (b) Fruit and vegetable peels
- (c) Human and animal excreta
- (d) Plastic bags

Answer: (d) Plastic bags

Explanation: Plastics bags and bottles come under the category of non-biodegradable products because they cannot be broken down by natural process and tend to damage the safety of the environment.

15. Global warming is a phenomenon related to:

- (a) Evaporation
- (b) Ecological balance
- (c) Greenhouse effect
- (d) Desertification

Answer: (c) Greenhouse effect

Explanation: The increase in greenhouse gases in the environment leads to global warming.

All the above questions are also provided below in form of PDF which students may download and save them to use in offline mode as and when required