

# Ecosystems

## REVIEW QUESTIONS

### Multiple Choice Questions:

1. Put a tick mark (✓) against the correct alternative in the following statements:

a. The term “ecosystem” is derived from the Greek word “Oikos” meaning.

1. Body weight
2. Food
3. **House**
4. Size

b. Rat in any food chain would occupy the position of

1. Tertiary consumer
2. Secondary consumer
3. **Primary consumer**
4. Producer

c. Evergreen broad-leaved trees are characteristic of

1. **Tropical rain forests**
2. Temperate deciduous forests
3. Coniferous forests
4. All of the above types of forests.

### Short Answer Type:

1. Mention if the following statements are true (T) or false (F).

- (a) Snakes are primary consumers (T/F)
- (b) Some humans are strictly primary consumers & some others are of other types of consumers also (T/F)
- (c) No ecosystem can survive without light (T/F)
- (d) Cattle go to ponds for drinking water, so they are a constituent of pond ecosystem (T/F)

**Answer:**

**(a) Snakes are primary consumers (F)**

No the snakes are not primary consumers as snakes eat rats and frogs as these are primary consumers which eat plant products. As snakes eat the primary consumers so the snakes are secondary consumers.

**(b) Some humans are strictly primary consumers and some others are of other types of consumers also (T)**

It is true that humans are vegetarians and eat plants or plant products. So these humans are vegetariBut there are certain humans which eat the flesh or eggs of other animals. These are carnivores and humans living plants are called Herbivores.

**(c) No ecosystem can survive without light (T)**

The plants and animals and micro-organisms present at a place and interacting with the atmosphere like sun light, air, water, soil and warmth and dwelling at a place like, pond, desert, forest, rock form the ecosystem as pond ecosystem, desert ecosystem forest ecosystem. So ecosystem cannot survive without the presence of light. As the flora (plants) living in that ecosystem can only make food in the presence of light and the animals (Fauna) living in that ecosystem get the food from the plants of that ecosystem. So flora in that area cannot survive in that area without light and animals living in that area will not get the food and the plants and animals will perish and the ecosystem cannot survive.

**(d) Cattle go to ponds for drinking water, so they are a constituent of pond ecosystem (F)**

Cattles likes tigers, lions, cows, deers, buffaloes, go to take water from the pond and return to their dwellings as tigers, deers etc. come to the forest so they form a forest ecosystem. But plants like hydrilla, vallineria, lotus etc. and animals like frogs, beetles, fish live in the pond and form the pond ecosystem. But animals like buffalo which come only to take~water cannot form a part of the pond ecosystem.

**2. Match the items in Column I with as many items as possible in Column II.**

| Column I       | Column II              |
|----------------|------------------------|
| 1. Deer        | (i) Autotroph          |
| 2. Parrot      | (ii) Heterotroph       |
| 3. Cobra       | (iii) Insect           |
| 4. King Snake  | (iv) Deciduous forests |
| 5. Greenkeeper | (v) Rangoon            |
|                | (vi) Chondrichthyes    |
|                | (vii) Freshwater       |

**Answer:**

| Column I     | Column II                                      |
|--------------|------------------------------------------------|
| 3. Cobra     | (iii) Carnivore                                |
| 4. Pine tree | (iv) Deciduous forests,<br>Autotroph, Producer |

**3. Rewrite the following in their correct sequence in a food chain:**

- (a) Snake → Grasshopper → Grass → Frog
- (b) Grass → Tiger → Deer
- (c) Snake → Peacock → Rat → Wheat

**Answer:**

- (a) Grass → Grasshopper → Frog → Snake
- (b) Grass → Deer → Tiger
- (c) Wheat → Rat → Snake → Peacock

**Long Answer Type:**

**Question 1.**

Differentiate among primary, secondary and tertiary consumers. Give one example of each in a food chain.

**Answer:**

All plants produce food through photosynthesis and are categorised as self food producers i.e. these are autotrophs. There are plant eating animals called herbivores as Rabbits, deers, pigeons, cows, buffaloes etc. and insects like grasshoppers, bees, butterflies and crickets also eat plants or plant products as fruits, flowers, pollen grains and plant juices. Such animals are called primary consumers.

Animals like tigers, lions, wolves, lizards, frogs eat the primary consumers. Birds vultures, kites, eagles eat the primary consumer, (i.e. These birds eat the flesh of many birds like pigeons, sparrows.) These animals or birds are called secondary consumers.

Animals like snakes are eaten by the peacocks, they eat the secondary consumers and are called tertiary consumers.

Owls, eagle are top carnivore. So it is quaternary consumer.

### Question 2.

Define the term (a) flora and (b) fauna.

#### Answer:

**Flora:** Plants occurring in a particular area are called flora of that area i.e. vegetative growth forms flora. Flora deals with plants. **Fauna:** The animals occurring in an area form the fauna of that area.

Fauna deals with animals.

Flora and fauna of an area are the plants and animals found in that area.

### Question 3.

List any three members each of the flora and fauna of tropical rain forests.

#### Answer:

Tropical rain forests are on the western coast of India and in the north, east.

**Flora:** bamboos, ferns, shrubs (Evergreen trees).

**Fauna:** leopards, jungle cats, monkeys, snakes, flying squirrels, insects, snails, centipedes, millipedes.

### Question 4.

Define the following terms and give two examples in each case.

(a) Symbiosis

(b) Parasitism

(c) Predation

#### Answer:

**(a) Symbiosis:** It refers to relationships between organisms of different species that show an intimate association with each other. Symbiotic relationships provide at least one of the participating species with a nutritional advantage.

Examples of Symbiosis Relationships are of Fungus and photosynthetic alga and Microbes and cattle.

**(b) Parasitism:** Parasitism is a type of symbiotic relationship between organisms of different species where one organism, the parasite, benefits at the expense of the other, the host. Examples of Parasitism are tapeworms, flukes, the plasmodium species and mosquitoes.

**(c) Predation:** A predator is any consumer that kills and eats another living organism in order to obtain energy. The organism being eaten is called the prey.

Examples are Lions, Deer, Wolves, Eagles.