

B.Sc. Part 1

ZOOLOGY HONS

Paper 2

Ecosystem

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Ecosystem Definition

“An ecosystem is defined as a community of life forms in concurrence with non-living components, interacting with each other.”

The ecosystem is the structural and functional unit of ecology where the living organisms interact with each other and the surrounding environment. In other words, an ecosystem is a chain of interaction between organisms and their environment. The term “Ecosystem” was first coined by A.G.Tansley, an English botanist, in 1935.

Read on to explore the structure, components, types and functions of the ecosystem in the ecosystem notes provided below.

Types of Ecosystem

An ecosystem can be as small as an oasis in a desert, or as big as an ocean, spanning thousands of miles. There are two types of ecosystem:

- Terrestrial Ecosystem
- Aquatic Ecosystem

Terrestrial Ecosystems

Terrestrial ecosystems are exclusively land-based ecosystems. There are different types of terrestrial ecosystems distributed around various geological zones. They are as follows:

1. Forest Ecosystems
2. Grassland Ecosystems
3. Tundra Ecosystems
4. Desert Ecosystem

Forest Ecosystem

A forest ecosystem consists of several plants, animals and microorganisms that live in coordination with the abiotic factors of the environment. Forests help in maintaining the temperature of the earth and are the major carbon sink.

Grassland Ecosystem

In a grassland ecosystem, the vegetation is dominated by grasses and herbs. Temperate grasslands, savanna grasslands are some of the examples of grassland ecosystems.

Tundra Ecosystem

Tundra ecosystems are devoid of trees and are found in cold climates or where rainfall is scarce. These are covered with snow for most of the year. The ecosystem in the Arctic or mountain tops is tundra type.

Desert Ecosystem

Deserts are found throughout the world. These are regions with very little rainfall. The days are hot and the nights are cold.

Aquatic Ecosystem

Aquatic ecosystems are ecosystems present in a body of water. These can be further divided into two types, namely:

1. Freshwater Ecosystem
2. Marine Ecosystem

Freshwater Ecosystem

The freshwater ecosystem is an aquatic ecosystem that includes lakes, ponds, rivers, streams and wetlands. These have no salt content in contrast with the marine ecosystem.

Marine Ecosystem

The marine ecosystem includes seas and oceans. These have a more substantial salt content and greater biodiversity in comparison to the freshwater ecosystem.
