Environmental Equillibrium
(English Medium)

Exercise 134:

Solution 1(a):

Biotic components include plants and animals.

Solution 1(b):

Abiotic components include air, sunlight, temperature and soil.

Solution 1(c):

Abiotic factors include light, temperature, chemical products, water and atmosphere. For example, light is an essential abiotic factor in the ecosystem because it constitutes the main supply of energy for organisms. The plants with chlorophyll can change light energy into chemical energy.
Biotic factors cannot survive without abiotic factors which will disturb the environment.

Exercise 135:

Solution 1(a):

The environmental equilibrium may be disturbed due to the introduction of new species, sudden death of some species, natural hazards or man-made causes.
Earthquakes, various types of volcanic eruptions, tsunami, the devastating effects of human activities such as forest clearing and the introduction of invasive species disturb the environmental equilibrium.

Solution 1(b):

Snakes, reptiles and monkeys are found rarely or in small numbers around us.

Exercise 136:

Solution 1(a):

Asian elephant	Marbled cat	Olive Ridley turtles	Sea turtle	Indian vulture
Bengal tiger	Red panda	Hornbill	Sawfish	Lemur
Blue whale	Snow leopard	Black rhino	Redheaded vulture	Javan rhinoceros
Barasingha	Sloth bear	Himalayan wolf	Quail	Monk seal
Clouded leopard	Swamped deer	Flying squirrel	Great Indian Bustard	Mountain gorilla
Indian wild ass	Yak	Roofed turtle	Owlet	Ivory billed woodpecker
Lion tailed macaque	Wild goat	Gharial	Crane	Giant salamander

Exercise 137:

Solution 1(a):

1. Different types of habitat can be studied and regular statistical surveys of animal populations can be carried out.
2. Protection of endangered species by creating national parks, sanctuaries and zoos.
3. Launching of successful captivity breeding programmes for these animals.
4. Many organizations like Indian Board of Wildlife and World Wildlife Fund take sole responsibility of conservation of endangered animals.

Solution 1(b):

Birds found in highest numbers	Birds found in less numbers or are rare	Birds never found
Crow	Parrot	Kiwi
Pigeon	Sparrow	Woodpecker
Hummingbird	Swan	Vulture
Peacock	Duck	Eagle

Exercise 139:

Solution 1(a):

Albatross	Himalayan quail	Pink headed duck	Spoon billed sandpiper	Black tailed Godwit
Siberian crane	Indian vulture	Forest Owlet	White backed vulture	Lesser flamingoes
White bellied heron	Great Indian Bustard	Bengal Florican	Red headed vulture	Eurasian curlew

Solution 1(b):

1. They help in growth of trees by removing parasites and damaging insects.
2. They help in transporting seeds.
3. They also help with pollination.

Exercise 141:

Solution 1(a):

The aquatic animals include sharks, dolphins, fishes, eels, whales, shrimps, crabs, starfishes, stingrays and turtles.

Exercise 142:

Solution 1(a):

Trees found rarely	Trees not found at all
Mangroves	Nilgiri Holly
Milkwort	Kerala legume tree
Whisk fern	Woolly stalked Begonia
Ebony	Jeemikanda
Umbrella thorn	Spiderwort
Musli	Water lily

Exercise 144:

Solution 1(a):

1. Preventing overgrazing of animals as they eat young trees.
2. Practices such as safe campfire and safe fireworks should be adopted near forest areas in order to prevent forest fire.

3. Large scale afforestation can be practiced to protect and conserve trees.

Exercise 145:

Solution 1:

1. Introduction of foreign species in a native environment causes ecological imbalance.
2. Habitat loss is also an important problem that causes imbalance in environment.
3. Climate change is also altering migratory species patterns.
4. Improper use of non-renewable resources also causes loss in ecological imbalance.
5. Deforestation and environmental pollution is also a major cause for environmental imbalance.

Solution 2:

Environmental equilibrium refers to the balance in the environment and all the organisms living in it.

1. It is very important for continued existence and survival of organisms and stability of environment.
2. It is also important for adaptation of organisms to the environment and vice versa.
3. Interactions among organisms maintain diversity and in destroying or enhancing one species in a local ecosystem, one may destroy the whole system in time.

For example, bacteria are vital for maintaining the living world. Some of them are producers that capture energy by photosynthesis while others are decomposers that break down the nutrients in dead matter and the atmosphere.

Solution 3:

1. We can protect forests by planting more trees and preventing forest fires.
2. We can conserve wildlife that is on the verge of extinction.
3. Conservation of habitat for the wild species may be taken care of so that they feel safe and secure.
4. Protection of these species by constructing national parks, zoos and sanctuaries.
5. We can reduce the environmental pollution of air, water and soil in order to maintain environmental equilibrium.