

K. Case Study

1. Cutting down of trees is called deforestation and it leads to soil erosion. Since roots of trees bind the soil, with deforestation, the soil gets easily blown away by wind and swept away by water.

As the top layer of soil gets eroded, soil fertility decreases. The soil that remains has less humus and minerals and so the plants do not grow in it. With time, this area without vegetation looks like a desert. This is called desertification.

Deforestation leads to destruction of many habitats and so the loss of many plants and animals. Deforestation also leads to decrease in the water holding capacity of soil. Hence the amount of water that infiltrates from soil to ground gets reduced. This reduces the water table of the area.

- (i) As the top soil in a forest gets eroded, it leads to:

(a) deforestation (b) less rain fall (c) desertification (d) less temperature

(ii) Which one of the following is not due to deforestation?

- (a) reduced water table
- (b) loss of habitats
- (c) soil erosion
- (d) forest fires

(iii) Which of the following leads to soil erosion?

- (a) loss of habitats
- (b) deforestation
- (c) increased temperature
- (d) reduced water table

(iv) Deforestation leads to:

- (a) decrease in water holding capacity of soil
- (b) more humus in soil
- (c) increase in habitats
- (d) none of these

J. Assertion-Reason Questions

In the questions given below two statements are given – one labelled **Assertion (A)** and the other labelled **Reason (R)**. Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below:

- (a) Both A and R are true, and R is the correct explanation of A.
- (b) Both A and R are true, but R is not the correct explanation of A.
- (c) A is true, but R is false.
- (d) A is false, but R is true.

1. **Assertion:** Deforestation leads to decrease in the water holding capacity of soil.
Reason: Deforestation leads to soil erosion and floods in the lowline areas.
2. **Assertion:** Biosphere reserves help to maintain the biodiversity as well as local culture of that area.
Reason: In a biosphere reserve, tribal communities coexist with the natural environment.
3. **Assertion:** The areas which have endemic species are generally highly protected.
Reason: Endemic species occupy a restricted area and are confined to a specific region.
4. **Assertion:** Migration is movement of animals from one place to another for food, shelter and rearing of young ones.
Reason: Migration of animals takes place before the onset of unfavourable conditions.
5. **Assertion:** In a national park, the boundary is not well marked by a fence.
Reason: In a national park, some human activities for recreation and research are allowed under strict supervision of guides.