1. Name the three important components of biodiversity.
Ans: Three components of biodiversity are:
(a) Genetic diversity
(b) Species diversity
(c) Ecological diversity

2. How do ecologists estimate the total number of species present in the world?
Ans: Ecologists make a significant comparison of species richness of exhaustively studied groups of insects of the temperate and tropical regions and extrapolate this ratio to other groups of animals and plants to calculate gross estimate of the total number of species existing on the earth.

3. Give three hypothesis for explaining why tropics "'show greatest levels of species richness.
Ans:
(1) The tropical area have a more stable climate than temperate zones. Local species continues to live in absence of natural disturbances.
(2) Warm temperature and high humidity in most tropical areas provide favourable conditions for growth and survival of diverse species.
(3) Tropical areas receive more solar energy over year and thus tropical communities are more productive and can support a wide range of species.

4. What is the significance of the slope of regression in a species - area relationship?
Ans: When analysis of species - area relationships is done among small areas, the values of slope of regression are remarkably similar regardless of the taxonomic group or the region. However, when such analysis is done among very large areas, i.e., continents, then the slope of regression would be much steeper. Biodiversity also changes with the change in altitude. It increases from higher to lower altitudes.

5. What are the major causes of species losses in a geographical region ?
Ans: Species are lost in a geographical region due to natural disturbances like forest fires; famine, drought and also due to human disturbance with over replantation, habitat destruction, habitat displacement, over specialization, intensive agriculture and pollution.

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