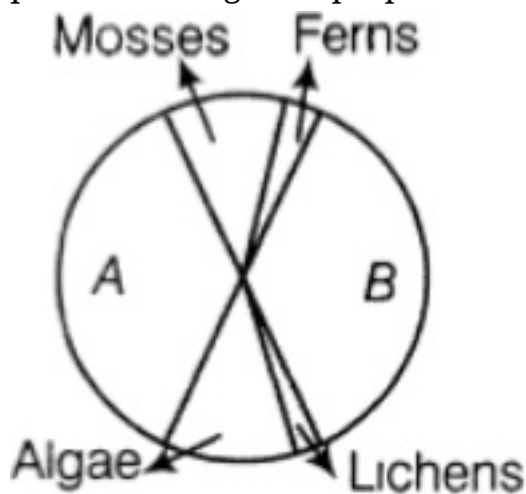


CBSE Test Paper 04
Ch-15 Biodiversity and Conservation

1. A sacred lake is
 - a. Chilka Lake of Orissa
 - b. Suraj kund Lake of Haryana.
 - c. Dal lake of Kashmir
 - d. Khecheopalari Lake of Sikkim.
2. Project elephant started in the year:
 - a. 1992
 - b. 1990
 - c. 1993
 - d. 1982
3. Statement I: Biosphere reserves help in restoration of degraded ecosystem and habitat.
Statement II: Biosphere helps in restoring extinct species of plants and animals.
Statement III: Biosphere reserves support education and research in various ecological aspects.
 - a. Only statement I and III is correct.
 - b. Only statement I and II is correct.
 - c. All statements are correct.
 - d. All statements are incorrect.
4. If a sample area comprises of more number of taxonomically unrelated species, this will indicate
 - a. a sample area with greater genetic diversity
 - b. a sample area with number of sub-species
 - c. a less diverse sample area
 - d. a more diverse sample area
5. Objectives of conservation of biological diversity are:
 - i. sustainable use of components of biodiversity.
 - ii. non-sharing of benefits arising out of utilisation of genetic resources.
 - iii. Using biological components for present generation only.
 - a. only i) and iii) are correct

- b. only ii) and iii) are correct
- c. only iii) is correct
- d. only i) and iii) are correct

6. Name any two threatened animal species of India.
7. India has more than 50,000 strains of rice. Mention the level of biodiversity it represents.
8. Name the unlabelled areas A and B of the pie chart representing the biodiversity of plants showing their proportionate number of species of major taxa.



9. Name the hierarchical levels of biodiversity.
10. What are threatened species? Name three categories of threatened species.
11. Define Ex-situ conservation.
12. A team of research workers observed that the population of fish eating birds is declining every year after the establishment of a pesticide factory nearby five years ago. (a) What may be the possible reason in your opinion? Explain. (b) Can you suggest alternative to pesticide so that factory may be stopped.
13. Among the ecosystem services are control of floods and soil erosion. How is this achieved by the biotic components of the ecosystem?
14. Amazonian rain forest has the greatest biodiversity on earth. List any two hypothesis that are proposed by the biologists to account for the greater biological diversity.
15. What will be consequences of loss of biodiversity?

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Answer

1. d. Khecheopalari Lake of Sikkim, **Explanation:** Sacred lake is a pool of water generally near religious places where catching fish and other aquatic animals are strictly prohibited. Khecheopalari Lake of Sikkim is a sacred lake in India among many.
2. a. 1992, **Explanation:** Project Elephant (PE) was launched by the Government of India in the year 1992 as a Centrally Sponsored Scheme with following objectives:
 - To protect elephants, their habitat & corridors
 - To address issues of man-animal conflict
 - Welfare of captive elephants

3. a. Only statement I and III is correct, **Explanation:** A biosphere reserve is a protected area in which multiple use of land is permitted by dividing it into zones, each for a particular activity.

Importance of Biosphere Reserve:

1. **Conservation:** Biosphere reserves conserve genetic resources, species, ecosystems and landscapes without uprooting inhabitants.
 2. **Development:** Sustainable economic, cultural, social and ecological developments are ensured.
 3. **Restoration:** Biosphere reserve helps to rebuild any damage caused to ecosystems and habitats.
 4. **Education and Research:** Biosphere reserve provides a lot of scientific information for specific scientific studies and research.
4. d. a more diverse sample area, **Explanation:** Richness is a measure of the number of different kinds of organisms present in a particular area.
A diverse sample area having more number of taxonomically unrelated species will indicate a more diverse sample area.
A sample area is used to know the diversity of a geographical area.

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5. d. only i) and iii) are correct, **Explanation:** As per the Ministry of Environment and Forests, Government of India, the objectives of conservation of biodiversity are:
- i. To increase public awareness through media, government agencies, NGOs, etc.
 - ii. To implement strict restrictions on export of rare plants and animals.
 - iii. To preserve all varieties of old and new flora, fauna and microbes.
 - iv. To protect natural habitats.
 - v. To protect all critically endangered, endangered, and rare species.
 - vi. To reduce pollution.
 - vii. To maintain ecological balance.
 - viii. To utilize the natural resources in a sustainable way.
6. - Sarus crane
- Asiatic lion.
7. It represents Genetic diversity.
8. A-Fungi
B-Angiosperms.
9. Biodiversity includes 3 hierarchical levels:
- a. Genetic diversity
 - b. Species diversity
 - c. Community and Ecosystem diversity
10. Species likely to become extinct sooner or later are called threatened species. Three categories of threatened species are:
- a. Endangered species
 - b. Vulnerable species
 - c. Rare species
11. In Ex-situ conservation, threatened animals and plants are taken out from their natural habitat and placed in special setting where they can be protected and given special care. Example: Zoological parks, botanical gardens and wildlife safari parks.
12. A) Pesticide is entering into food chain which is resulting in biomagnifications. Higher level of pesticide is responsible for death of fish eating birds.
B) As an alternative to pesticide, biocontrolling agent can be used to remove pest. Biopesticides such as neem extract can be used as sprays to prevent pest attack.

Values

- Problem solving
- Critical thinking
- Concern towards nature

13. The biotic components of an ecosystem include plants and animals. Plants play following important role in the control of flood and soil erosion:
- The roots of the plants bind the soil particles firmly and prevent soil erosion. In absence of plants, rainwater washes away the top layer of soil which finally gets deposited in the river beds leading to decrease in depth of river. This causes flood.
 - Roots of the plants and the humus make the soil porous. This helps in percolation of the water into the soil and reduces the speed of the water flow.
14. Two hypothesis proposed to explain the greater biological diversity in amazon rainforest are:
- i. Speciation is generally a function of time. Temperate regions have been subjected to frequent glaciations in the past but tropical latitudes have remained undisturbed for millions of years. This has provided longer time for evolution and species diversification.
 - ii. Tropical environments are less seasonal, relatively more constant and predictable. Such constant environments promote niche specialization which leads to a greater diversity in plant and animal species. Also, more solar energy is available in the tropics which contributes to higher productivity. This indirectly contributes to species diversity.
15. Biodiversity is the biological wealth of world. The loss of biodiversity will result in:
- i. Decline in plant production which will lead to climatic change and pollution
 - ii. Extinction of various species
 - iii. Disruption in food chain and food web
 - iv. Imbalance in various ecosystems
 - v. As man is dependent on biodiversity for food and other necessities, its loss will be hard pressed for mankind.