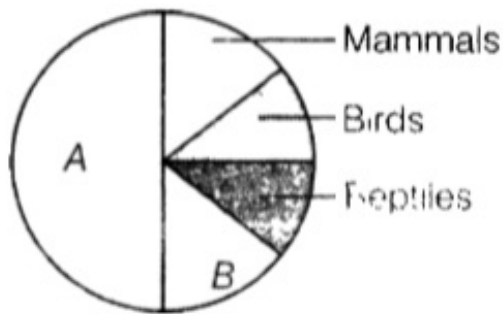


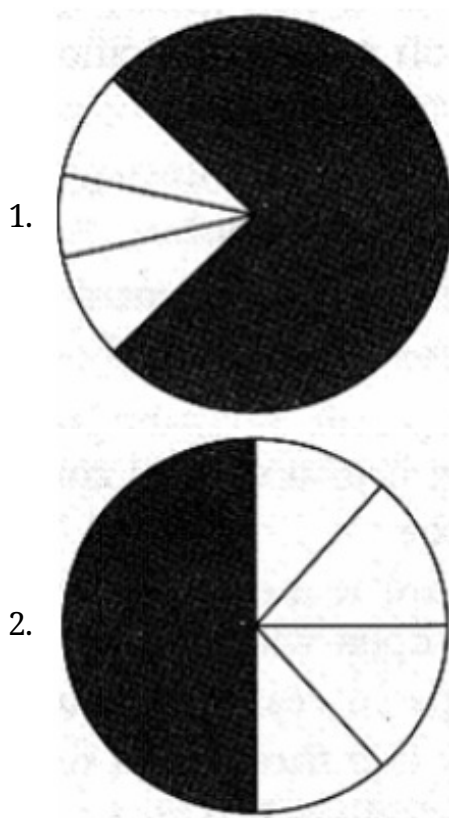
CBSE Test Paper 03
Ch-15 Biodiversity and Conservation

1. Nowadays, the greatest cause for extinction or biodiversity loss is
 - a. habitat alteration
 - b. climate change
 - c. invasive or alien species
 - d. overharvesting
2. Polyps and medusae of coelenterates (fixed and free-floating stages) are examples of polymorphism related to
 - a. habitat diversity
 - b. ecosystem diversity
 - c. genetic diversity
 - d. species diversity
3. Surveys and statistical studies have reported that endemic species show
 - a. more variation
 - b. less variation
 - c. high genetic diversity
 - d. spread only within a limited area
4. World wetland day:
 - a. Is celebrated every year on 2nd January.
 - b. In 2014, Indian ministry organised its celebrations at the Chilka lake.
 - a. both statements are wrong.
 - b. Statement a) is correct but b) is wrong.
 - c. Statement b) is correct but a) is wrong.
 - d. both statements are correct.
5. Which of the following is a major cause of reduction in gene pool?
 - a. Reproductive isolation
 - b. Genetic mutation
 - c. Breeding programmes
 - d. Genetic drift
6. Which group of vertebrates comprises the highest number of endangered species?

7. Name the unlabelled areas A and B of the pie chart representing biodiversity of vertebrates showing the proportionate number of species of major taxa.



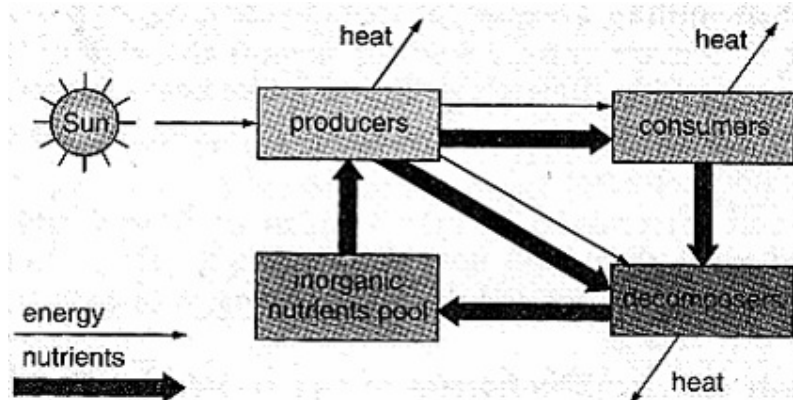
8. Why Western Ghats in India have been declared as biological hotspot?
9. In the pie chart (a) and (b) drawn below to show the global animal diversity, which group of animals would you name and write on the areas shaded back in (a) and (b). In which kind of habitat would you find these groups of animals?



10. Giving two reasons explain why there is more species biodiversity in tropical latitudes than in temperate ones?
11. List any three natural world heritage sites of India.

12. The species diversity of the plants (22%) is much less than that of animals (72%). What could be the explanations to how animals achieved greater diversification?

13. Study the following diagram, and answer these questions:



- Why does a wide arrow point from both producers and consumers to decomposers?
 - Why does a wide arrow point only from the inorganic nutrient pool to producers?
 - Why don't the wavy arrows point from decomposers to producers?
14. Alien species are a threat to native species. Justify taking examples of an animal and a plant alien species.
15. Define co-extinction and give a example.

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Answer

1. a. habitat alteration, **Explanation:** The greatest cause for extinction or biodiversity loss is the habitat alteration. Deforestation causes loss of habitats of a number of wild animals. Pollution of water also alters the habitat of aquatic organisms.
2. c. genetic diversity, **Explanation:** Two or more forms of same species are called polymorphism. Coelenterates are of two kinds alternating with each other. Polyp forms remain fixed with attached with substratum and medusa forms are free-floating stages.
3. b. less variation, **Explanation:** Endemic species are plants and animals that exist only in one geographic region. Species can be endemic to large or small areas of the earth.
Endemic species of an ecological region try to maintain same genetic makeup. These species are well suited in particular habitat and show very less variation in comparison to other species.
4. c. Statement b) is correct but a) is wrong, **Explanation:** World Wetlands Day is celebrated every year on 2 February. This day marks the date of the adoption of the Convention on Wetlands on 2 February 1971, in the Iranian city of Ramsar on the shores of the Caspian Sea.
In 2014, Indian ministry organised its celebrations at the Chilika lake.
5. d. (d) Genetic drift, **Explanation:** Gene pool is the sum total of genes of different organisms of a particular species. Reduction of gene pool is mainly caused by genetic drift along with reasons like geographical isolations.
6. The highest number of endangered species are found in **Mammals**.
7. A-Fishes
B-Amphibians
8. Western Ghats have been declared as biological hotspot due to its rich biodiversity

and rich environment. Many endemic species of amphibians, reptiles and fishes are found in these regions.

9. A - Insects. They are the most species-rich taxonomic group in the animal kingdom, making up more than 70 per cent of the total species found on earth. Insects are found in almost all types of habitats.

B - Fish. Among the vertebrates, fish form the largest group including both freshwater and seawater fish.

10. The reasons for more species biodiversity in tropical latitudes than in temperate ones are:

(i) Tropical latitude shows less seasonal variations and has remained relatively undisturbed for millions of years. Such stable environment provides longer time for species diversification.

(ii) Tropical regions get more sunlight compared to temperate ones. Availability of greater amount of solar energy increases productivity and growth in population. This indirectly helps in species diversity.

11.

	Site	State
(a)	Kaziranga National Park	Assam
(b)	Nanda Devi National Park	Punjab
(c)	Sundarban National Park	West Bengal

12. Animals have achieved greater diversification due to following reasons:

- Compared to plants, animals have increased size and genetic variation.
- Also the animals possess complex nervous system to control and coordinate various body activities.
- Animals possess receptor organs for receiving various environmental stimuli and able to respond against them.
- Animals have the ability of locomotion which is absent in plants.

Due to above reasons, animals have shown greater adaptations to different climatic and geographical locations leading to evolution of more diverse species.

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13. i. When both producers and consumers die, they are decomposed by the decomposers.
- ii. Only producers use simple inorganic nutrients to make complex organic molecules through the process of photosynthesis.
- iii. Energy flow is unidirectional. It does not follow the cyclic path.
14. When alien species are introduced in a particular ecosystem, they become invasive. Alien species compete for food and other resources which threatens survival of native species. For example:
- The Nile Perch introduced in lake Victoria in East Africa led to the gradual extinction of more than 200 species of Cichlid fish in the lake. Introduction of African cat fish (*Clarias gariepinus*) for aquaculture purpose is posing threat to the indigenous catfish in our rivers.
 - Invasive weed species like water hyacinth (*Eichhornia*), carrot grass (*Parthenium*) have posed a threat to our native species.
15. When a species becomes extinct, the plant and animal species associated with it in an obligatory way also become extinct. This is called co-extinction.
- Example:
- When a host fish species becomes extinct, the group of parasites who depend on it also become extinct.
 - Certain obligatory mutualistic relationships exist in nature like *Pronuba yuccaselles* and *Yucca*. Extinction of one will cause extinction of the other.