

Topic :- Biodiversity & Conservation

1 (c)
Threatened species in India include about 81 species of wild mammals, 30 wild birds, 15 reptiles and amphibians and many invertebrates.

2 (b)
Endangered species are those species, which are on the verge of extinction because of critically reduced number of individuals due to indiscriminate killing and due to drastic reduction in their habitats. Common endangered animals are Indian wild ass, Indian one-horned rhinoceros, etc.

3 (c)
A more conservative and scientifically sound estimate made by Robert May, places the global species diversity at about 7 million

4 (c)
On a logarithmic scale, the species area relationship is a straight line described by the equation

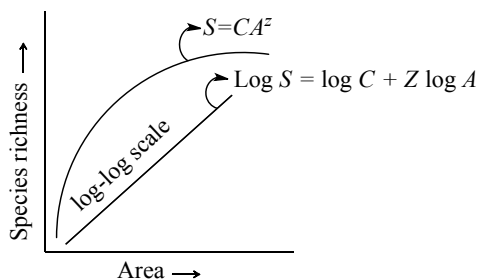
$$\log S = \log C + Z \log A$$

Where, S = species richness

A = area

Z = slope of the line

C = Y-intercept



- 5 **(a)**
Out of the 25 hotspots of the world, two are found in India. These are Western ghats and Eastern Himalayas and these extend to the neighbouring countries also. These areas show high degree of endemism and area inhabited by a wide variety of flowering plants, swallow-tailed butterflies, amphibians, reptiles and mammals.
- 6 **(b)**
The Kashmir stag (*Cervus elaphus hanglu*) also called **hangul**, is a subspecies of Red Deer native to northern Pakistan and India. This deer lives in riverine forests, high valleys and mountains of the Kashmir valley and northern Chamba in Himachal Pradesh. In Kashmir, it's found in Dachigam National Park.
- 7 **(a)**
Rivet popper hypothesis explains the importance of biodiversity for the survival of species. It was proposed by Paul Ehrlich
- 8 **(b)**
Alpha diversity refers to the diversity of organisms showing the same community for habitat. A combination of richness and equitability/evenness is used to represent diversity within a community or habitat.
- 9 **(b)**
Chiru is the source of Shahtoosh.
- 10 **(c)**
Nepenthes is an endangered species of plant. *Rauwolfia*, *Rhododendron*, *Psilotum*, *Ophioglossum* are some other endangered species of plants.
- 11 **(b)**
In the beginning of 20th century, about 30% of land mass in India was covered with forests and at the end of 20th century, it is reached by 19.4%.
- 12 **(c)**
Genetic diversity is the diversity in the number

and types of genes as well as chromosomes present in different species and the variations in the genes and their alleles in the same species. Introduction of high yielding varieties is the greatest threat to genetic diversity in agricultural crops.

- 13 **(b)**
Endemic species are species which are restricted geographically in a particular area in a given time.
- 14 **(d)**
Humans derives countless direct economic benefits from the nature like food, firewood, fibre, construction material, industrial products and products of medicinal importance. More than 25% of the drugs currently sold in the market worldwide are derived from the plants and 25000 species of the plants contributes to the traditional medicines used by native peoples around the world
- 15 **(c)**
Ex situ strategy is the conservation of selected threatened plants and animal species.
Ex situ strategy is the conservation of selected threatened plant and animal species in places outside their natural habitat, where the population is conserved under stimulated conditions that closely resemble their natural habitats. It includes, botanical gardens, zoological parks, wildlife safari, gene banks, etc.
- 16 **(b)**
Afforestation or **reforestation**, *i.e.*, growing of forest trees is most effective in controlling soil erosion. The Government of India has introduced the festival of 'Van Mahotsav'. In this festival, planting of trees is done on open waste land.
- 17 **(a)**
Excessive exploitation of a species, whether a plant or animal reduces the size of its population, so that it becomes vulnerable to extinction. Many marine fishes like whales population is declining around the world because of over harvesting.

Some commercially important species are likely to become endangered

18 **(d)**

The number of species facing the threat of extinction worldwide is 15,500

19 **(b)**

Biosphere reserve is an *in situ* conservation method. Hence, it is the most effective way among the four for preserving genetic diversity by protecting wild population, traditional life style and domesticated plant genetic resource.

20 **(c)**

Loss of biodiversity occurs due to habitat loss, fragmentation over exploitation, alien species invasion and co-extinction.

ANSWER-KEY										
Q.	1	2	3	4	5	6	7	8	9	10
A.	C	B	C	C	A	B	A	B	B	C
Q.	11	12	13	14	15	16	17	18	19	20
A.	B	C	B	D	C	B	A	D	B	C