

Topic :- Biodiversity & Conservation

- 1 (c)
Biodiversity Act of India was passed by the Parliament in the year 2002.
- 2 (d)
The world is facing accelerated rate of biodiversity losses due to human interference. The causes are over population, urbanization, industrialization, coextinctions, alien species invasions, habitat loss and fragmentation, etc.
- 3 (a)
The diversity at the species level is measured as species diversity. It is the variety in the number and richness of the species of a region. For example, the Western Ghats have a greater amphibian species diversity than the Eastern Ghats
- 4 (a)
IUCN (International Union for the Conservation of Nature and Natural Resources) headquarter at Morgon, Switzerland, has 8 Red list categories of species-extinct, extinct in wild, critically endangered, vulnerable, lower risk, data deficient and not evaluated. In India, it is completed by Botanical Survey of India (BSI).
- 5 (b)
Example of *ex situ* conservation are zoos, aquaria and captive breeding programmes just like breeding of animals in Nandan Kanha.
- 6 (a)
In the species-area relationship, S represents species richness
- 7 (d)
Those species whose population has been greatly reduced or whose natural habitats have been disturbed due to which these are near the extinction and may become extinct if the causative factors continue, are grouped under the category of **threatened species**.

IUCN (International Union Conservation of Nature and Natural Resources) is maintaining a **Red Data Book**, which contains a record of species, which are threatened. These include vulnerable, endangered and rare species.
- 8 (a)
Organic matter (organic wastes) contains a number of pathogens, secondary pollutants, pesticides, etc. Biological oxygen demand becomes high and therefore, the dissolved oxygen reduced. Hence, planktons, Mollusca and fishes will be eliminated due to reduced

dissolved oxygen and presence of secondary pollutant. Some species like annelid worm *Tubifex* and some insect larvae (*Chironomus*) tolerate pollution.

- 9 **(b)**
Medicinal plant, *Rauwolfia vomitoria*, growing in different Himalayan ranges, shows differences in the potency and concentration of active chemical called reserpine due to genetic diversity
- 10 **(c)**
Conservation of biodiversity is the protection, uplift and scientific management of biodiversity so as to maintain it at its optimum level and derive sustainable benefits for the present as well as future generations. Sustainable use is the ability to use natural resources in a way that helps people and protects the ecosystem
- 11 **(b)**
The coniferous forest or taiga or boreal forest consists of evergreen, cone bearing trees like spruce, pine, etc. Mean annual rainfall is 50-170 cm (50-250 cm annual variation in precipitation). In winter average temperature is 6°C and night are long and chilly while summers are pleasant with average maximum temperature of 20°C and with long hours of day light (– 1°C to 13°C annual variations in the intensity and duration of temperature).
- 12 **(a)**
In situ conservation is the conservation of living resources through their maintenance within the natural ecosystem in which they occur, e.g., national parks, sanctuaries, biosphere reserves.
- 13 **(a)**
Biota is the total number of all species of organisms in a given region. Flora is the plant species of a region while **fauna** is the animal species in an area.
- 14 **(b)**
Rhino (*Rhinoceros unicornis*) are protected in Kaziranga National Park. This park is situated ar Asom.

Ranthambor and Bandipur national parks are tiger (*Panthera tigris*) reserve, while Gir forests protect lion (*Panthera leo persica*).
- 15 **(b)**
Simlipal is biosphere reserve located in Orissa.
- 16 **(b)**
Humus is the fully decomposed organic matter mixed with mineral matter. It is dark brown or black in colour and is found in the region, a, or humio or melanised region or horizon-A of soil profile.
- 17 **(c)**
In the given table, the area 'IV' has maximum species diversity, as there are 10 species (A-J) reside in 12 habitats, while in area 'III', the 10 species reside in 13 habitats, so exhibit

less diversity than area 'IV'.

18 **(a)**

A species becomes prone to extinction due to the two categories of attributes, drastic environmental changes and population characteristics

Population traits are-small population size, large body size, higher status of trophic level, etc.

19 **(b)**

A botanical gardens is collection of various types of living plants. *Ex situ* conservation means conservation of plants or animals in the artificial habitats, which are quite similar to the normal habitats of these organisms. In this way, botanical gardens provide *ex situ* conservation of germplasm.

20 **(c)**

Approximately 20% of the world's population lives in dryland environments. Almost 75% lives in semi-arid zones, 25% in arid zones and only 1% in hyper arid zone.

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