

Topic :- Biodiversity & Conservation

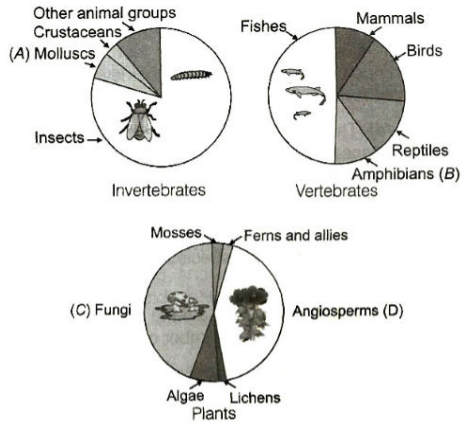
- 1 **(c)**
Variation in the genes of a species increases with the increase in size and environmental parameters of the habitat
In results in the formation of polymorphs-ecotypes, races, varieties and sub-species. Genetic diversity is useful in adaptation to the change in environmental conditions.
Medicinal plant, *Rauwolfia vomitoria* shows variation due to the genetic diversity
- 2 **(a)**
In situ consevation is the conservation of living resources through their maintenance within the natural ecosystems, in which they occur. *In situ* conservation includes a comprehensive system of protected areas such as the national parks, sanctuaries, natural reserves, biosphere reserves, etc.
- 3 **(b)**
The cheetah (*Acinonyx jubatus*) is a member of cat family. Cheetah have been know to exist in India for a very long time. But due to hunting and other purposes, cheetah in India became extinct before the twentieth century.
- 4 **(a)**
For frugivorous birds and mammals in the tropical forests of different continents, the slope is found to have a value of 1.15
- 5 **(d)**
Given, $\log A = 4$, $Z = 0.3$ and $\log C = 0.8$
Putting these values in equation, *i.e.*, species area relationship equation, we will get the value of $\log S$

$$\begin{aligned}\log S &= \log C + Z \log A \\ &= 0.8 + 0.3 \times 4 \\ &= 0.8 + 1.2 \\ &= 2.0\end{aligned}$$

- 6 **(a)**
Siberian cranes are regular visitors of Bharatpur sanctuary, Rajasthan.
- 7 **(d)**
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.
- 8 **(a)**
Periyar sanctuary is located in Kerala.
- 9 **(b)**
Manas Wildlife Sanctuary is situated at Kamrup (Assam). It covers 80 sq km area. Its key vertebrate species are tiger, wild boar, sambhar, golden langoor, one-horned rhino, swamp deer, wild dog and wild buffalo.
- 10 **(b)**
Eutrophication means nutrient enrichment. Rich growth of microorganisms consumes most of the dissolved oxygen, so as to deprive other organisms.
- 11 **(a)**
Deforestation is the depletion of forest resources. Its main cause is the explosion of human and livestock population with the increased demand of the basic needs. Ideally, one third (33%) of land of a country must be covered by forest. In India, forest cover is only 19.43% out of which only 13% are thick forests. India is losing about 1.5 million hectare of forest covers each year. The major effect of deforestation is the loss of precious wild life, rare species of flora and fauna. Directly or indirectly, deforestation caused intensified soil

erosion, accentuated flood, drought and the worst pollution.

12 (b)



On earth, more than 70% of all the species recorded are animals, while plants (including algae, fungi, bryophytes gymnosperms and angiosperms) comprises no more than 22% of the total. Among animals, insects are the most species-rich taxonomic group, making up more than 70% of the total. Number of fungi species in the world is more than the combined total of the species of fishes, amphibians, reptiles and mammals

13 (b)

Soil transportation by wind is common in dry regions where soil is chiefly sandy and the vegetation is very poor. Transported soils are those where the weathered material is taken away at other places. Depending on the nature of these transporting agents, the transported soil may be

(i) **Glacial**, transported by glaciers (large mass of snow ice)

(ii) **Eolian**, transported by wind

(iii) **Aluvial**, transported by running water

(iv) **Colluvial**, transportation by gravity.

14 (d)

Ranthambor national park is situated in Rajasthan.

- 15 **(b)**
A plant *Bentinckia condapanna/nicoarica* (member of family –Arecaceae) and the animal, red panda, both are declared as endangered in India.
- 16 **(b)**
Earth Summit at Rio de Janeiro (1992), Brazil, promoted Convention on Biological Diversity (CBD) which was signed by 152 nations
- 17 **(b)**
The narrowly utilitarian arguments for conserving biodiversity are
Human derives countless direct economic benefits from nature-food (pulses, cereals, fruits), firewood, fibre, construction, dyes, resins, perfumes) and the products of medicinal importance
- 18 **(c)**
Species diversity.
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
- 19 **(b)**
In 1973, the Chipko movement (Chipko means to hug or stick to) was launched by **Chandi Prasad Bhatt** and **Sunder Lal bahuguna** against large scale felling of trees by timber contractors in the Uttarakhand hills. The starting point was **Chamoli** district of **Garhwal** region in Uttarakhand.
- 20 **(b)**
In 1973 the Chipko movement was launched by Chandi Prasad Bhatt and Sundar Lal Bahuguna against large scale falling of trees by timber contractors in Uttarakhand hills.

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

PE