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Biodiversity and Its Conservation

TOPIC 1 Biodiversity

01 Which of the following regions of the globe exhibits highest species diversity? [NEET (Sep.) 2020]

- (a) Madagascar
- (b) Himalayas
- (c) Amazon forests
- (d) Western Ghats of India

Ans. (c)

The Amazonian rain forest in South America has the greatest biodiversity on earth. Rainforests have high biodiversity because they are abundant in nutrients, energy and have a favorable climate for the biodiversity to prosper.

02 Decline in the population of Indian native fishes due to introduction of *Clarias gariepinus* in river Yamuna can be categorised as [NEET (Odisha) 2019]

- (a) co-extinction
- (b) habitat fragmentation
- (c) overexploitation
- (d) alien species invasion

Ans. (d)

Decline in the population of Indian native fishes due to introduction of *Clarias gariepinus* in river Yamuna can be categorised as alien species invasions. It is posing a threat to the indigenous catfishes in our rivers and causing a loss of biodiversity.

03 Which of the following is the most important cause for animals and plants being driven to extinction? [NEET (National) 2019]

- (a) Drought and floods
- (b) Economic exploitation
- (c) Alien species invasion
- (d) Habitat loss and fragmentation

Ans. (d)

Habitat loss and fragmentation is the most important cause for animals and plants being driven to extinction. Due to habitat fragmentation and loss, a 14% of the earth's land surface, rainforest has shrunk to only 6% in last few years. Fragmentation and loss of large habitats due to various human activities badly affects mammals and birds requiring large territories. Certain animals with migratory habits are also affected by habitat loss and fragmentation. Thus, their populations are driven towards decline and extinction.

On the other hand, droughts and floods, economic exploitation and alien species invasion affect only a small part of population at a time.

04 Which is the National Aquatic Animal of India? [NEET 2016, Phase I]

- (a) River dolphin
- (b) Blue whale
- (c) Seahorse
- (d) Gangetic shark

Ans. (a)

River dolphin is the National Aquatic Animal of India. This mammal exclusively reside in freshwater or brackish water.

05 Plants such as *Prosopis*, *Acacia* and *Capparis* represent examples of tropical [CBSE AIPMT 1998]

- (a) grasslands
- (b) thorn forests
- (c) deciduous forests
- (d) evergreen forests

Ans. (b)

Flora of thorn forests include *Prosopis cineraria*, *Acacia senegal*, *Capparis decidua*, *Salvadora oleoides*, *Asparagus racemosus* and *Ephedra foliata*.

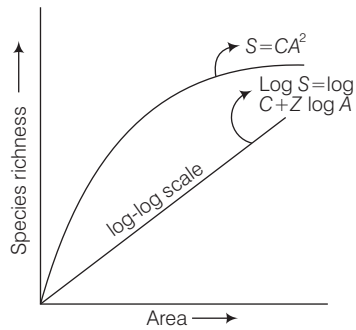
06 Alexander von Humbolt described for the first time [NEET 2017]

- (a) ecological biodiversity
- (b) law of limiting factor
- (c) species area relationships
- (d) population growth equation

Ans. (c)

Alexander von Humbolt was a great German naturalist and geographer. He did extensive explorations in the wilderness of South American forests. He established species area relationship.

He observed that within a region, species richness increase with increasing explored area, but upto a certain limit. Infact, the relationship between species richness and area for a variety of taxa turns out to be a rectangular hyperbola as shown in figure below



Showing species area relationship

Note that on log scale the relationship becomes linear.

On a logarithmic scale, the 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 (regression coefficient)

C = Y-intercept

07 Which of the following is the most important cause of animals and plants being driven to extinction? [NEET 2016, Phase I]

- (a) Alien species invasion
- (b) Habitat loss and fragmentation
- (c) Co-extinctions
- (d) Over-exploitation

Ans. (b)

There are four major causes of biodiversity loss in which most important cause driving animals and plants to extinction is habitat loss and fragmentation.

08 Red List contains data or information on [NEET 2016, Phase II]

- (a) all economically important plants
- (b) plants whose products are in international trade
- (c) threatened species
- (d) marine vertebrates only

Ans. (c)

IUCN maintains a **Red Data Book** which is a catalogue of the taxa facing the risk of extinction. The threatened species are the one which are at more risk of become extinct. The list of these species is called Red List.

09 Which of the following is correctly matched? [NEET 2016, Phase II]

- (a) Aerenchyma – *Opuntia*
- (b) Age pyramid – Biome
- (c) *Parthenium hysterophorus* – Threat to biodiversity
- (d) Stratification – Population

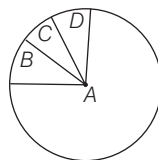
Ans. (c)

Parthenium hysterophorus (carrot grass) is an alien species introduced inadvertently for some economic use, turned invasive causing decline or extinction of the indigenous species.

The other options are wrong because

- (a) Aerenchyma is found in aquatic plants (*Vallisneria*, *Hydrilla*), but *Opuntia* is a xerophytic plant.
- (b) Biome is total sum of all ecosystem present in the planet earth whereas age pyramid is the graphical representation of age of organisms of one population at a specific time.
- (d) Stratification is related with different layers of vegetation in an ecosystem (like forest/grass land) and population is a term referred to a group of same kind of organisms which can freely interbreed.

10 Given below is the representation of the extent of global diversity of invertebrates. What groups the four portions (A-D) represent respectively? [CBSE AIPMT 2014]



	A	B	C	D
(a)	Insects	Crustaceans	Other animal Groups	Molluscs
(b)	Crustacean	Insects	Molluscs	Other animal groups
(c)	Molluscs	Other animal groups	Crustaceans	Insects
(d)	Insects	Molluscs	Crustaceans	Other animal groups

Ans. (c)

Phylum-Arthropoda is the largest phylum of the animal kingdom with its largest group, i.e. insecta (A). The second largest population is of phylum-Mollusca (B). The third one is occupied by crustaceans (C). All other animals combinally indicate the (D) portion of pie chart.

11 A species facing extremely high risk of extinction in the immediate future is called [CBSE AIPMT 2014]

- (a) vulnerable
- (b) endemic
- (c) critically endangered
- (d) extinct

Ans. (c)

The extremely highest risk category assigned by the IUCN Red List for wild species is critically endangered species. These are those species that are facing a very high risk of extinction in near future. There are currently 2129 animals and 1821 plants which have been recorded in this category.

12 The organisation which publishes the Red List of species is [CBSE AIPMT 2014]

- (a) ICFRE
- (b) IUCN
- (c) UNED
- (d) WWF

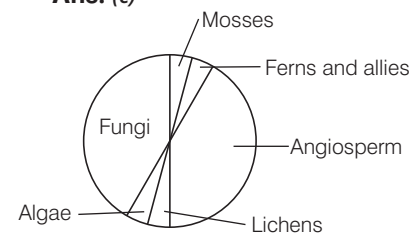
Ans. (b)

IUCN is International Union for Conservation of Nature which publishes the Red List of threatened species or Red Data List which assesses the conservation status of species. It is an international organisation founded in October, 1948. Its head quarter is in Gland, Switzerland.

13 Which of the following represent maximum number of species among global biodiversity? [NEET 2013]

- (a) Algae
- (b) Lichens
- (c) Fungi
- (d) Mosses and ferns

Ans. (c)



The following figure shows global biodiversity of fungi, mosses, ferns, algae, lichens and angiosperms. Therefore, from the above figure it is clear that fungi has maximum number of species among the global biodiversity.

14 Maximum nutritional diversity is found in the group
[CBSE AIPMT 2012]

- (a) Fungi (b) Animalia
(c) Monera (d) Plantae

Ans. (c)

Maximum nutritional diversity is shown by the members of kingdom—Monera. Some of them are autotrophic, (e.g. photosynthetic autotrophic or chemosynthetic autotrophic) while the vast majority are heterotrophs (e.g. saprotrophic or parasitic). Ecologically, these may be producers or decomposers.

15 The highest number of species in the world is represented by
[CBSE AIPMT 2012]

- (a) fungi (b) mosses
(c) algae (d) lichens

Ans. (a)

Fungi represent the highest number of species in the world. Around 1,00,000 species of fungi have been formally described by taxonomists but the global biodiversity of kingdom fungi is not fully understood.

16 Which one of the following shows maximum genetic diversity in India?
[CBSE AIPMT 2011, 2009]

- (a) Rice (b) Maize
(c) Mango (d) Groundnut

Ans. (a)

There are an estimated 2,00,000 varieties of rice in India alone. The diversity of rice in India is one of the richest in the world. Basmati rice has 27 documented varieties grown in India.

17 Which one of the following have the highest number of species in nature?
[CBSE AIPMT 2011]

- (a) Insects (b) Birds
(c) Angiosperms (d) Fungi

Ans. (a)

More than 70 per cent of all the species recorded are animals. Among animals, insects are the most species rich taxonomic group, making more than 70 per cent of the total. It means out of every 10 animals on this planet, 7 are insects.

18 Which one of the following expanded forms of the following acronyms is correct?
[CBSE AIPMT 2011]

- (a) UNEP — United Nations Environmental Policy
(b) EPA — Environmental Pollution Agency
(c) IUCN — International Union for Conservation of Nature and Natural Resources
(d) IPCC — International Panel for Climate Change

Ans. (c)

IUCN or IUCNRR (International Union for Conservation of Nature and Natural Resources) is now known as WCU (World Conservation Union). Its headquarter is at Gland, Switzerland. It studies the threat to biodiversity in all parts of the world by gathering information about the geographical distribution, population size and population changes of various taxa. It prepares a Red List or Red Data Book categorising different organisms belonging to different categories.

19 ICBN stands for
[CBSE AIPMT 2007]

- (a) Indian Congress of Biological Names
(b) International Code of Botanical Nomenclature
(c) International Congress of Biological Names
(d) Indian Code of Botanical Nomenclature

Ans. (b)

ICBN stands for International Code of Botanical Nomenclature. A body of rules and recommendations governing botanical names.

20 Which one of the following pairs of organisms are exotic species introduced in India?
[CBSE AIPMT 2007]

- (a) *Ficus religiosa*, *Lantana camara*
(b) *Lantana camara*, water hyacinth
(c) Water hyacinth, *Prosopis cineraria*
(d) Nile perch, *Ficus religiosa*

Ans. (c)

A species of organism that is not native to a locality where it is flourishing and have been moved there from its natural range by humans or other agents is called exotic species, e.g. water hyacinth, *Prosopis cineraria*, etc.

21 Which of the following pairs of an animal and a plant represents endangered organisms in India?
[CBSE AIPMT 2006]

- (a) *Bentinckia nicobarica* and red panda
(b) Tamarind and rhesus monkey
(c) *Cinchona* and leopard
(d) Banyan and black buck

Ans. (a)

A plant *Bentinckia condapanna/nicobarica* (member of family—Arecaceae) and the animal, red panda (an arboreal mammal) both have been declared endangered in India. High altitude area of Arunachal Pradesh have formed Pangchen Red Panda conservation alliance to recover population of the endangered animal.

22 What is a keystone species?
[CBSE AIPMT 2004]

- (a) A species which makes up only a small proportion of the total biomass of a community, yet has a huge impact on the community's organisation and survival
(b) A common species that has plenty of biomass, yet has a fairly low impact on the community's organisation
(c) A rare species that has minimal impact on the biomass and on other species in the community
(d) A dominant species that constitutes a large proportion of the biomass and which affects many other species

Ans. (a)

Species having much greater influence on community characteristics, relative to their low abundance or biomass are keystone species, removal of these cause serious disruption in functioning of community, e.g. in tropical forests, figs are keystone species.

23 According to IUCN Red List, what is the status of red panda (*Athurus fulgens*)?
[CBSE AIPMT 2005, 2004]

- (a) Vulnerable species
(b) Critically endangered species
(c) Extinct species
(d) Endangered species

Ans. (d)

Endangered species are those species whose population have been reduced to a critical level.

So, they are near to extinction in near future. Approximately 300 species and

sub-species of mammals are considered as endangered by the International Union for the Conservation of Nature and Natural Resources (IUCN).

Red panda is an endangered species because it is facing a very high risk of extinction in near future.

- 24** Biodiversity act of India was passed by the Parliament in the year [CBSE AIPMT 2005, 2002]

(a) 1996 (b) 1992
(c) 2002 (d) 2000

Ans. (c)

According to the US office of technology assessment (1987) 'biological diversity is the variety among living organisms and the ecological complexes in which they occur'. Biodiversity act of India was passed by the Parliament in the year of 2002.

- 25** Which endangered animal is the source of the world's finest, lightest, warmest and most expensive wool—the shahtoosh? [CBSE AIPMT 2003]

(a) Kashmiri goat (b) Chiru
(c) Nilgai (d) Cheetal

Ans. (c)

According to the US office of technology assessment (1987) 'biological diversity is the variety among living organisms and the ecological complexes in which they occur'. Biodiversity act of India was passed by the Parliament in the year of 2002.

- 26** Which group of vertebrates comprises the highest number of endangered species? [CBSE AIPMT 2003]

(a) Reptiles (b) Birds
(c) Mammals (d) Fishes

Ans. (c)

Approximately 69 mammalian species and 40 bird species are threatened in India alone.

- 27** The endangered largest living lemur Ildri is inhabitant of [CBSE AIPMT 2000]

(a) Madagascar (b) Mauritius
(c) Sri Lanka (d) India

Ans. (a)

The Lemurs are the inhabitants of Madagascar and the Comoro Islands.

- 28** Which of the following is mainly responsible for extinction of wildlife? [CBSE AIPMT 1999]

(a) Destruction of habitats
(b) Pollution of air and water
(c) Hunting for flesh
(d) All of the above

Ans. (d)

Destruction of habitats deprives wildlife of their best places where they could flourish, indiscriminate killing of wild animals has greatly reduced their population and pollution adversely affects their life cycles.

- 29** Which of the following is the main factor of desertification? [CBSE AIPMT 1995]

(a) Tourism
(b) Irrigated agriculture
(c) Over grazing
(d) All of these

Ans. (c)

The process of formation of desert is desertification. Main factor of desertification is over grazing of that area by the herbivorous animals. Cutting down of trees may be other cause for desertification as it leads to loss of wild life.

- 30** If the forest cover is reduced to half, what is most likely to happen on a long basis? [CBSE AIPMT 1996]

(a) Tribals living in these areas will starve to death
(b) Cattle in these and adjoining areas will die due to lack of fodder
(c) Large areas will become deserts
(d) Crop breeding programmes will suffer due to a reduced availability of variety of germplasm

Ans. (c)

If the forest cover is reduced to half than it will lead to desertification (formation of desert) of that area in long term.

- 31** Wildlife is destroyed most when [CBSE AIPMT 1994]

(a) there is lack of proper care
(b) mass scale hunting for foreign trade
(c) its natural habitat is destroyed
(d) natural calamity

Ans. (c)

Destruction of habitat (including falling of trees) exposes wildlife to a number of adverse factors leading to diminishing of their numbers.

- 32** Which animal has become extinct from India? [CBSE AIPMT 1994]

(a) Snow leopard (b) Hippopotamus
(c) Wolf (d) Cheetah

Ans. (d)

Cheetah has become extinct from India in 1930. Asiatic cheetah are now found in Iran and scientists are working to breed them and bring them back to Indian sub-continent.

- 33** Species diversity increases as one proceeds from [CBSE AIPMT 1994]

(a) high altitude to low altitude and high latitude to low latitude
(b) low altitude to high altitude and high latitude to low latitude
(c) low altitude to high altitude and low latitude to high latitude
(d) high altitude to low altitude and low latitude to high latitude

Ans. (a)

Species diversity increases from high altitude or latitude to low altitude or latitude due to the increase in temperature and seasonal variability in the concerned areas.

- 34** American water plant that has become a troublesome water weed in India is [CBSE AIPMT 1993]

(a) *Cyperus rotundus*
(b) *Eichhornia crassipes*
(c) *Trapa latifolia*
(d) *Trapa bispinosa*

Ans. (b)

Eichhornia crassipes is a native of America and is exotic species to India. It has become a trouble some weed in many aquatic habitats causing eutrophication and many other ecological problems.

TOPIC 2 Biodiversity Conservation

- 35** In the following in each set a conservation approach and an example of method of conservation are given

(1) *In situ* conservation—Biosphere reserve
(2) *Ex situ* conservation—Sacred groves

- (3) *In situ* conservation–Seed bank
 (4) *Ex situ* conservation–
 Cryopreservation

Select the option with correct match of approach and method.

[NEET (Oct.) 2020]

- (a)(1) and (3) (b)(1) and (4)
 (c)(2) and (4) (d)(1) and (2)

Ans. (b)

Option (b) is correct. It can be explained as *In situ* conservation is on site conservation technique, i.e. the species are protected in their natural habitats only. In this approach the important components of biological diversity are protected and managed through protected areas, biosphere reserves and sacred forests or lakes.

On the other hand, *ex situ* conservation involves the conservation of selected rare flora or fauna in places outside their natural habitat.

It includes off site collection and gene banks. In gene banks, germplasm, tissue or embryos are stored in preserved conditions using the technologies like orchards, tissue culture and cryopreservation.

- 36** Which one of the following is not a method of *in situ* conservation of biodiversity?

[NEET (National) 2019]

- (a) Wildlife sanctuary
 (b) Botanical garden
 (c) Sacred grove
 (d) Biosphere reserve

Ans. (b)

Botanical garden is not a method of *in situ* conservation of biodiversity. It is a type of *ex situ* or off site conservation in which rare plants are conserved in places outside their natural habitat. Rest all are methods of *in situ* conservation of biodiversity.

- 37** The Earth Summit held in Rio de Janeiro in 1992 was called

[NEET (National) 2019]

- (a) for conservation of biodiversity and sustainable utilisation of its benefits
 (b) to assess threat posed to native species by invasive weed species
 (c) for immediate steps to discontinue the use of CFCs that were damaging the ozone layer
 (d) to reduce CO₂ emissions and global warming

Ans. (a)

The Earth Summit held in Rio de Janeiro in 1992 was called for the conservation of biodiversity and sustainable utilisation of its benefits. In this summit, more than 130 nations signed a convention on Biodiversity and Climate Change. Canada was the key player in the development of this convention.

- 38** All of the following are included in *ex-situ* conservation except

[NEET 2018]

- (a) botanical gardens
 (b) sacred groves
 (c) wildlife safari parks
 (d) seed banks

Ans. (b)

Sacred groves is a mode of *in situ* conservation in which forest fragments of varying size are protected by religious communities. It helps to protect the biota of that area on site.

On the other hand, botanical gardens, seed banks and wildlife safari parks are the examples of *ex situ* conservation in which the biota is protected outside its natural habitat.

- 39** Which one of the following is related to *Ex situ* conservation of threatened animals and plants?

[NEET 2017]

- (a) Wildlife safari parks
 (b) Biodiversity hotspots
 (c) Amazon rainforest
 (d) Himalayan region

Ans. (a)

Wildlife safari parks are used for the *ex situ* conservation of threatened animals and plants. They are taken out from their natural habitat and placed in special settings (wildlife safari park, zoo). Here they are protected and given special care.

- 40** The region of biosphere reserve, which is legally protected and where no human activity is allowed is known as

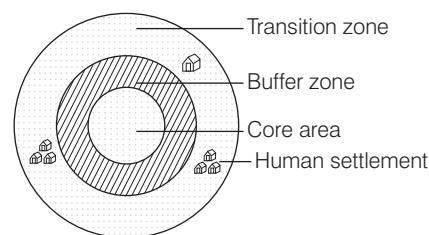
[NEET 2017]

- (a) core zone
 (b) buffer zone
 (c) transition zone
 (d) restoration zone

Ans. (a)

Biosphere reserve consists of three zones, i.e. core, buffer and transition zone. **Core zone** comprises an

undisturbed and legally protected ecosystem, where no human activity is allowed. Buffer zone surrounds the core area and transitions zone is the outermost area of the biosphere reserve, where active cooperation between reserve management and the local people occur.



Zonation in terrestrial biosphere

- 41** Joint Forest Management Concept was introduced in India during

[NEET 2016, Phase I]

- (a) 1970s (b) 1980s
 (c) 1990s (d) 1960s

Ans. (b)

Joint Forest Management Concept was introduced in India during 1980s by the Government of India to work closely with the local communities for protection and management of forests.

- 42** Which of the following national parks is home to the famous musk deer or hangul?

[NEET 2016, Phase II]

- (a) Keibul Lamjao National Park, Manipur
 (b) Bandhavgarh National Park, Madhya Pradesh
 (c) Eaglenest Wildlife Sanctuary, Arunachal Pradesh
 (d) Dachigam National Park, Jammu and Kashmir

Ans. (d)

Dachigam National Park, situated at Jammu and Kashmir is famous for conservation of musk deer.

At **Keibul Lamjao National Park**, Manipur, brown deer (Sangai) is protected. At Bandhavgarh National Park, MP, tiger is protected.

Eaglenest Wildlife Sanctuary, Arunachal Pradesh, protects elephants and red panda.

- 43** How many hotspots of biodiversity in the world have been identified till date by Norman Myers?

[NEET 2016, Phase II]

- (a) 17 (b) 25
 (c) 34 (d) 43

Ans. (c)

The total number of biodiversity hotspots in the world are 34 till date. These are the areas of high endemism and high level of species richness.

- 44** The species confined to a particular region and not found elsewhere is termed as
[CBSE AIPMT 2015]
- (a) keystone (b) alien
(c) endemic (d) rare

Ans. (c)

The species confined to a particular region and not found elsewhere is termed as endemic.

Their conservation requires peculiar specific efforts due to their unavailability in other parts of world.

- 45** Just as a person moving from Delhi to Shimla to escape the heat for the duration of hot summer, thousands of migratory birds from Siberia and other extremely cold Northern regions move to
[CBSE AIPMT 2014]
- (a) Western Ghat
(b) Meghalaya
(c) Corbett National Park
(d) Keolado National Park

Ans. (d)

Every year in the season of winter the famous Indian National Park, Keolado National Park situated in Bharatpur, Rajasthan, host thousands of migratory birds which come from Siberia (Atlantic Ocean) Central America and other extremely cold Northern region.

October-February is the best time to observe these migratory birds. Most of them stay till march including the Siberian crane.

- 46** An example of *ex situ* conservation is
[CBSE AIPMT 2014, 2010]
- (a) National Park
(b) Seed Bank
(c) Wildlife Sanctuary
(d) Sacred Grove

Ans. (b)

Ex situ or off-site conservation is the process of protecting endangered species of plants and animals outside their natural habitat. This involves the conservation of genetic resources like seeds in seed banks.

- 47** Which one of the following is not used for *ex situ* plant conservation?
[NEET 2013]
- (a) Field gene banks
(b) Seed banks
(c) Shifting cultivation
(d) Botanical gardens

Ans. (c)

Shifting cultivation results into deforestation. Botanical gardens have collection of living plants for reference. Seed banks store seeds as a source of germplasm, in case seed reserves elsewhere are destroyed. Field gene banks are a type of biorepository which preserve the genetic material.

- 48** Which one of the following areas in India, is a hot spot of biodiversity?
[CBSE AIPMT 2012]
- (a) Eastern Ghats (b) Gangetic plain
(c) Sunderbans (d) Western Ghats

Ans. (d)

Hotspots are areas that are extremely rich in species diversity, in its natural habitat, have high endemism and are under constant threat. In India, two hotspots are found extending into neighbouring countries. The Western Ghats/Sri Lanka and the Indo-Burman region (covering the Eastern Himalayas which is also known as cradle of speciation).

- 49** Select the correct statement about biodiversity.
[CBSE AIPMT 2012]

- (a) The desert areas of Rajasthan and Gujarat have a very high level of desert animal species as well as numerous rare animals
(b) Large scale planting of Bt cotton has no adverse effect on biodiversity
(c) Western Ghats have a very high degree of species richness and endemism
(d) Conservation of biodiversity is just a fad pursued by the developed countries

Ans. (c)

Western Ghats occur along the western coast of India in Maharashtra, Karnataka, Tamil Nadu and Kerala. There is high degree of endemism as well as richness of species of flowering plants, amphibians, reptiles, some mammals and butterflies.

- 50** A collection of plants and seeds having diverse alleles of all the genes of a crop is called
[CBSE AIPMT 2011]
- (a) germplasm (b) gene library
(c) genome (d) herbarium

Ans. (a)

A germplasm is a collection of genetic resources for an organisms. For plants, the germplasm may be stored as a seed collection. It includes diverse alleles of all the genes of organism occurring in nature.

- 51** Tiger is not a resident, in which one of the following national parks?
[CBSE AIPMT 2009]
- (a) Ranthambhor
(b) Sunderbans
(c) Gir
(d) Jim Corbett

Ans. (c)

Gir National Park (Gujarat) is not concerned with tiger. The animals found in Gir National Park are Asiatic lion, panther, striped hyaena, sambar, nilgai, cheetal, four-horned antelope and chinkara.

Ranthambhor National Park Sunderbans and **Jim Corbett National Park** (Uttarakhand) are tiger reserves.

- 52** Which one of the following is not observed in biodiversity hot spots?
[CBSE AIPMT 2008]

- (a) Endemism
(b) Accelerated species loss
(c) Lesser interspecific competition
(d) Species richness

Ans. (c)

Hotspots are the areas that are extremely rich in species diversity, have high endemism and are under constant threat. The key criteria for determining a hotspot are number of endemic species and degree of threat which is measured in terms of habitat loss. 34 hot spots had been identified globally with an approximate area of 1.4%.

Among these hot spots 2 are found in India, i.e. Western Ghat and Eastern Himalayas. These areas are particularly rich in floral wealth and endemism not only in flowering plants but also in reptiles, amphibians, swallo tailed butterflies and some mammals.

53 World Summit on Sustainable Development (2002) was held in
[CBSE AIPMT 2008]

- (a) Brazil
- (b) Sweden
- (c) Argentina
- (d) South Africa

Ans. (a)

In 1992, world leaders convened an Earth Summit in Rio de Janeiro, Brazil, in search of international agreements that could help to save the world from pollution, poverty and the waste of resources. Another Earth Summit was convened from 26th August–4th September 2002 in Johannesburg, South Africa.

54 One of endangered species of Indian medicinal plants is that of
[CBSE AIPMT 2007]

- (a) *Podophyllum*
- (b) *Ocimum*
- (c) garlic
- (d) *Nepenthes*

Ans. (a)

Podophyllum is an Indian endangered plant of family–Berberidaceae. Its dried roots and rhizomes are used in chronic constipation and tumorous growth.

55 Identify the odd combination of the habitat and the particular animal concerned.
[CBSE AIPMT 2007]

- (a) Dachigam National Park
– Snow leopard
- (b) Sunderbans
– Bengal tiger
- (c) Periyar
– Elephant
- (d) Rann of Kutch
– Wild ass

Ans. (a)

Dachigam National Park is situated near Dal Lake in Jammu and Kashmir. It is known for conservation of the most endangered Hangul or Kashmir stag in paramount.

56 Which one of the following is not included under *in situ* conservation?
[CBSE AIPMT 2006]

- (a) Sanctuary
- (b) Botanical gardens

- (c) Biosphere reserve
- (d) National park

Ans. (b)

Botanical gardens (i.e. man-made areas that maintain living plant collections representing a large number of species, genera and families) are the means of *ex situ* conservation (i.e. conservation outside the natural habitats).

In situ conservation involves the conservation of genetic resources through their maintenance within natural ecosystems in which they occur.

It includes National Parks, Sanctuaries, Biosphere Reserves, Natural Reserves, Natural Monuments, Cultural Landscapes, etc.

57 Which of the following is considered a hotspot of biodiversity in India?
[CBSE AIPMT 2006]

- (a) Western ghats
- (b) Indo-Gangetic plain
- (c) Eastern ghats
- (d) Aravalli hills

Ans. (a)

Hotspots are the areas with high density of diversity or megadiversity which are also the most threatened once. Today, the number of hot spots identified by ecologists are 34, of which two hot spots are present in India, i.e. Western Ghats and North-East Himalayas.

Western Ghats occur along the Western Coast of India for a distance of about 1600 km in Maharashtra, Karnataka, Tamil Nadu and Kerala extending over to Sri Lanka.

58 One of the most important function of botanical garden is that
[CBSE AIPMT 2005]

- (a) one can observe tropical plants there
- (b) they allow *ex situ* conservation of germplasm
- (c) they provide the natural habitat for wild Life
- (d) they provide a beautiful area for recreation

Ans. (b)

A botanical garden is a garden dedicated to the collection, cultivation and display of a wide range of plants with their botanical names. *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.

59 In your opinion which is the most effective way to conserve the plant diversity of an area?
[CBSE AIPMT 2004]

- (a) By tissue culture method
- (b) By creating biosphere reserve
- (c) By creating botanical gardens
- (d) By developing seed banks

Ans. (b)

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

60 Species restricted to a given area are called
[CBSE AIPMT 1998]

- (a) sibling
- (b) endemic
- (c) sympatric
- (d) allopatric

Ans. (b)

Species restricted to small areas are called endemic; approximately 29% of dicots in the Himalayas are endemic.

61 MAB stands for [CBSE AIPMT 1997]

- (a) Man And Biology programme
- (b) Man And Biosphere programme
- (c) Mammals And Biosphere
- (d) Mammals And Biology programme

Ans. (b)

Man And Biosphere (MAB) programme was formally launched by UNESCO in 1971. It is an interdisciplinary programme of research and training with emphasis on ecological approach to the study of inter-relationship between man and his environment.

62 A number of natural reserves have been created to conserve specific wildlife species. Identify the correct combination from the following **[CBSE AIPMT 1996]**

- (a) Gir forest – Tiger
- (b) Kaziranga – Elephants
- (c) Rann of Kutch – Wild ass
- (d) Manas Wildlife Sanctuary – Musk deer

Ans. (c)

Rann of Kutch is situated in Gujarat and provides protection mainly to wild ass, whereas musk deers are mainly protected in Kedarnath sanctuary. Gir is famous for Asiatic lions. Kaziranga is famous for one-horned rhinoceros.

63 Which of the following is the correct matching pair of a

sanctuary and its main protected wild animal? **[CBSE AIPMT 1995]**

- (a) Gir – Lion
- (b) Sariska – Tiger
- (c) Sunderban – Rhino
- (d) Kaziranga – Musk deer

Ans. (b)

Sariska is a wildlife sanctuary and is situated in Alwar, Rajasthan. Tiger is main protected animal in Sariska as it was selected as a Tiger Reserve in Project Tiger (1973). Gir is a National Park, associated with lions.

64 National Park associated with rhinoceros is **[CBSE AIPMT 1994]**

- (a) Kaziranga
- (b) Ranthambore
- (c) Corbett
- (d) Valley of flowers

Ans. (a)

Kaziranga National Park is associated with rhinoceros. It is situated in Golaghat and Nagaon districts of Assam. This National Park is famous for one-horned rhinoceros of India.

65 Ranthambore National Park is situated in **[CBSE AIPMT 1994]**

- (a) Maharashtra
- (b) Rajasthan
- (c) Gujarat
- (d) UP

Ans. (b)

Ranthambore National Park is situated in Rajasthan.

This is one of the tiger reserves established in 1973. Under the project Tiger initiative taken by Indian Government.