

Chapter 9

Biodiversity and Conservation

Solutions

SECTION - A

Objective Type Questions

(Biodiversity)

1. Which is **not** true regarding genetic diversity?

- (1) It enables a population to adapt to its environment
- (2) It is also basis of speciation
- (3) Ecotype formation depends upon it
- (4) Higher diversity increases uniformity

Sol. Answer (4)

Higher the diversity higher is variation.

2. Regional diversity is also called

- (1) Alpha diversity
- (2) Beta diversity
- (3) Gamma diversity
- (4) Ecosystem diversity

Sol. Answer (3)

Regional diversity is also called – γ diversity

Local diversity/point diversity – α diversity

Community diversity – β diversity

3. India covers the world land area of _____ and contributes the global diversity of _____.

- (1) 4%, 8%
- (2) 8.1%, 2.4
- (3) 2.4%, 8.1%
- (4) 8%, 4%

Sol. Answer (3)

India covers the world land area of 2.4% and contributes the global diversity of 8.1%.

4. Read the following statements :

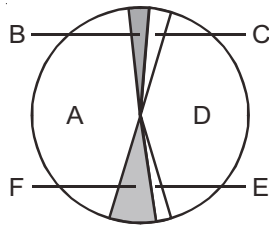
(A) India has a greater ecosystem diversity than Norway.

(B) According to the IUCN (2004), the total number of plant and animal species described so far is slightly more than 15 millions.

- (1) Both (A) & (B) are correct
- (2) Only (B) is correct
- (3) Both (A) & (B) are incorrect
- (4) Only (A) is correct

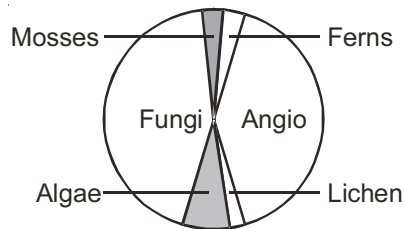
Sol. Answer (4)

5. Study the following pie chart w.r.t. global diversity of plants and select the correct option.



	A	B	C	D	E	F
(1) Angiosperms	Lichens	Algae	Fungi	Mosses	Ferns and allies	
(2) Fungi	Lichens	Algae	Angiosperms	Mosses	Ferns and allies	
(3) Fungi	Mosses	Ferns and allies	Angiosperms	Lichens	Algae	
(4) Angiosperms	Ferns and allies	Lichens	Fungi	Algae	Mosses	

Sol. Answer (3)



6. Which is not a reason of maximum diversity in tropics?

- (1) Higher pest pressure (2) Evolutionary older zone
(3) High rate of out crossing (4) Greater environmental variations

Sol. Answer (4)

Tropics show less environmental variations.

7. Select an **incorrect** statement w.r.t. biodiversity

- (1) Mountain peaks are more diverse than foot hills
(2) Valley's are more diverse than mountain peaks
(3) Shade sides are more diverse than sun sides of mountains
(4) Western ghats are more diverse than eastern ghats

Sol. Answer (1)

Mountain peaks are less diverse than foot hills.

8. Read the following statements:

- (A) Tropics harbour more species than temperate or polar areas.
(B) Colombia located near the equator has nearly 1400 species of birds.
(C) India has less than 105 species of birds.

- (1) (A) & (B) are incorrect (2) (B) & (C) are incorrect
(3) (A) & (C) are incorrect (4) Only (C) is incorrect

Sol. Answer (4)

India has more than 1200 species of birds because most of the land area lies in tropics.

9. Amazonian rain forest in South America is home to more than A species of plants and B species of fishes.

(1) A – 3,000, B – 40,000

(2) A – 1500, B – 2,500

(3) A – 40,000, B – 3,000

(4) A – 427, B – 378

Sol. Answer (3)

A – 40,000 plants, B – 378 species of fishes.

10. Which of the following statement is **wrong**?

(1) A stable community should show much variation in productivity from year to year

(2) According to Tillman's long term ecosystem experiments increased diversity contributed to higher productivity

(3) Stable community must be resistant to occasional disturbances

(4) Rich biodiversity is essential for ecosystem health but imperative for the very survival of the human race on this planet

Sol. Answer (1)

A stable community does not show much variation in year to year productivity.

11. Degree of biodiversity increases from

(1) Equator to poles

(2) Poles to equator

(3) Low latitude to high latitude

(4) Low altitude to high altitude

Sol. Answer (2)

Degree of biodiversity increases from poles to equators and high altitude to low altitude.

12. Which sample area shows maximum diversity?

(1)

Birds - 4
Insects - 4
Elephant - 4

(2)

Crow - 8
Pigeon - 8
Cuckoo - 8
Myana - 8

(3)

Pigeon - 10
Crow - 3
Insect - 7

(4)

Butter fly - 20
Banana fly - 20
Lizards - 20

Sol. Answer (1)

Maximum diversity occurs when species of taxonomically different groups occur in almost equal abundance

Birds - 4
Insects - 4
Elephant - 4

including - Aves, arthropods and mammals so it is more diverse than other given boxes.

13. Threats to biodiversity comes from

(1) Habitat loss

(2) Over exploitation

(3) Intensive agriculture

(4) All of these

Sol. Answer (4)

Threats to biodiversity come from - Habitat loss, Over exploitation and Intensive agriculture.

14. A population characteristic of a species susceptible to extinction is

- (1) Low trophic level in food chain
- (2) Inability to switch over to alternate food source
- (3) Wide range of distribution
- (4) High biotic potential

Sol. Answer (2)

In a population a species susceptible to extinction have inability to switch over to alternate food source.

15. Number of red list categories prepared by WCU (IUCN) is

- (1) 6
- (2) 7
- (3) 8
- (4) 9

Sol. Answer (3)

Number of red list categories given by WCU (World Conservation Union) old name IUCN into 8 categories

(i) Extinct, (ii) Extinct in wild, (iii) Critically endangered, (iv) Endangered, (v) Vulnerable, (vi) Lower risk, (vii) Data deficient, (viii) Not evaluated.

16. According to IUCN, when a taxon is facing an extremely high risk of extinction in the immediate future, it is

- (1) Extinct in wild
- (2) Endangered
- (3) Critically endangered
- (4) Vulnerable

Sol. Answer (3)

Critically endangered species face risk of extinction in immediate future.

17. Exotic species *Eichhornia crassipes*

- (1) Was introduced by Europeans in India
- (2) Was introduced in India accidentally
- (3) Was introduced in Lake Victoria of South Africa
- (4) Is a straggling shrub of tropical America

Sol. Answer (1)

Exotic species *Eichhornia crassipes* introduced in India by *Europeans*

18. Silent valley of Kerala is being preserved because it has

- (1) Rare plants and animals
- (2) Only natural forest of India
- (3) Costly timber plants
- (4) Recreational value

Sol. Answer (1)

Silent valley of Kerala is being preserved because it is abode for rare plants and animals.

19. In India, forests constitute about

- (1) 19.4% of the land area
- (2) 38.7% of the land area
- (3) 33% of the land area
- (4) 67% of the land area

Sol. Answer (1)

In India forests constitute 19.4% of the land area.

(Biodiversity Conservation)

20. Protected areas are example of

- (1) *In-situ* conservation (2) *Ex-situ* conservation (3) Cryopreservation (4) Green Houses

Sol. Answer (1)

Protected areas are "*In-situ* conservation".

21. The Indian lion is the most important protected species in

- (1) Gir National Park (2) Bandipur National Park
(3) Corbett National Park (4) Kaziranga National Park

Sol. Answer (1)

The Indian lion is the most important protected species in Gir National Park.

22. Government of India has provided the private ownership rights in

- (1) A national park (2) A sanctuary (3) A biosphere reserve (4) Zoo

Sol. Answer (2)

Government of India has provided the private ownership rights in sanctuary.

23. Wild populations of plants and animals and traditional life styles of tribals are protected in

- (1) Biosphere reserve (2) Sanctuary (3) National Park (4) None of these

Sol. Answer (1)

Biosphere reserve protects entire biosphere.

24. Which is not a criteria used for determining hot spots?

- (1) Number of endemic species
- (2) Degree of habitat destruction
- (3) Having traditional strategy for protection of biodiversity
- (4) Degree of exploitation

Sol. Answer (3)

The traditional strategy for protection of biodiversity are used in biosphere reserve not in hot spots.

25. Which of the following is correct match w.r.t. biodiversity rich region?

- | | | | |
|------------------------|------|--------------------------|-------|
| (1) National parks | – 95 | (2) Wildlife sanctuaries | – 448 |
| (3) Biosphere reserves | – 24 | (4) Zoological parks | – 25 |

Sol. Answer (2)

Wildlife sanctuaries – 448.

26. Select the odd one w.r.t. *ex-situ* conservation.

- (1) Botanical gardens (2) Wildlife safari parks
(3) Zoological parks (4) Sacred grooves

Sol. Answer (4)

Sacred grooves of India are forest fragments of varying sizes, which are communally protected and which

usually have a significant religious connotation for the protecting community.

27. Mark the odd one out (w.r.t. National Parks)

- | | |
|--|--|
| (1) Cultivation of land is not permitted | (2) Meant for protection of both flora and fauna |
| (3) Forest products are not harvested | (4) Grazing is allowed |

Sol. Answer (4)

Human interference like grazing is not allowed in National Parks.

28. Which of the following statement for biosphere reserve is incorrect?

- (1) They are meant for preserving genetic diversity in representative ecosystems
- (2) They are also notified as National Parks
- (3) Transition zone is legally protected undisturbed ecosystem
- (4) Importance in conservation, development, scientific research and monitoring

Sol. Answer (3)

In biosphere, transitional zone is outer zone, in this zone human activities like cropping, forestry etc. are allowed.

29. Conservation of plant diversity is mostly a / an

- (1) Aesthetic necessity (2) Economic necessity (3) Genetic necessity (4) Environmental necessity

Sol. Answer (3)

Conservation of plant diversity is mostly a genetic necessity.

30. *In-situ* conservation of one horned Rhino is being done in

- | | |
|-----------------------------|-------------------------|
| (1) Kaziranga National Park | (2) Kanha National Park |
| (3) Gir National Park | (4) Hazaribag Sanctuary |

Sol. Answer (1)

In-situ conservation of one horned rhino is being done in Kaziranga National Park – Jorhat, Assam.

(Conventions on Biodiversity)

31. Match the following

Column I	Column II
a. World Forestry Day	(i) October 4
b. World Animal Day	(ii) June 5
c. World Habitat Day	(iii) March 21
d. World Environment Day	(iv) First Monday of October
(1) a(i), b(iii), c(iv), d(ii)	(2) a(iv), b(i), c(iii), d(ii)
(3) a(iii), b(i), c(iv), d(ii)	(4) a(ii), b(i), c(iv), d(iii)

Sol. Answer (3)

World Forestry Day	–	March 21
World Animal Day	–	October 4
World Habitat Day	–	First Monday of October
World Environment Day	–	June 5

SECTION - B

Previous Years Questions

1. Western Ghats have a large number of plant and animal species that are not found anywhere else. Which of the following terms will you use to notify such species? **[NEET-2019 (Odisha)]**

(1) Keystone (2) Endemic (3) Vulnerable (4) Threatened

Sol. Answer (2)

Endemic species are those species that are confined to a particular region only and not found anywhere else.

2. Exploration of molecular, genetic and species level diversity for novel products of economic importance is known as : **[NEET-2019 (Odisha)]**

(1) Bioprospecting (2) Biopiracy (3) Bioenergetics (4) Bioremediation

Sol. Answer (1)

Bioprospecting refers to exploring molecular, genetic and species level diversity for products of economic importance.

3. The Earth Summit held in Rio de Janeiro in 1992 was called **[NEET-2019]**

(1) to reduce CO₂ emissions and global warming
(2) for conservation of biodiversity and sustainable utilization of its benefits
(3) to assess threat posed to native species by invasive weed species
(4) for immediate steps to discontinue use of CFCs that were damaging the ozone layer

Sol. Answer (2)

Earth Summit (Rio Summit)-1992, called upon all nations to take appropriate measures for conservation of biodiversity and sustainable utilisation of its benefits

4. Which of the following is the most important cause for animals and plants being driven to extinction? **[NEET-2019]**

(1) Habitat loss and fragmentation (2) Drought and floods
(3) Economic exploitation (4) Alien species invasion

Sol. Answer (1)

Habitat loss and fragmentation is the most important cause driving animals and plants to extinction.

eg: Loss of tropical rainforest reducing the forest cover from 14 % to 6 %.

5. Which one of the following is **not** a method of *in situ* conservation of biodiversity? **[NEET-2019]**

(1) Biosphere Reserve (2) Wildlife Sanctuary
(3) Botanical Garden (4) Sacred Grove

Sol. Answer (3)

Botanical garden - ex - situ conservation (off-site conservation) i.e. living plants (flora) are conserved in human managed system.

6. All of the following are included in 'ex-situ conservation' except **[NEET-2018]**

(1) Wildlife safari parks (2) Sacred groves (3) Seed banks (4) Botanical gardens

Sol. Answer (2)

- Sacred groves – *in-situ* conservation.
- Represent pristine forest patch as protected by Tribal groups.

7. Which one of the following is related to *Ex-situ* conservation of threatened animals and plants? [NEET-2017]

- (1) Wildlife Safari parks (2) Biodiversity hot spots (3) Amazon rainforest (4) Himalayan region

Sol. Answer (1)

Ex-situ conservation is offsite strategy for conservation of animals and plants in zoological park and botanical gardens respectively.

8. The region of Biosphere Reserve which is legally protected and where no human activity is allowed is known as [NEET-2017]

- (1) Core zone (2) Buffer zone (3) Transition zone (4) Restoration zone

Sol. Answer (1)

Biosphere reserve is protected area with multipurpose activities.

It has three zones

- (a) Core zone – without any human interference
(b) Buffer zone – with limited human activity
(c) Transition zone – human settlement, grazing cultivation etc., are allowed.

9. Alexander Von Humboldt described for the first time [NEET-2017]

- (1) Ecological Biodiversity (2) Laws of limiting factor
(3) Species area relationships (4) Population Growth equation

Sol. Answer (3)

Alexander Von Humboldt observed that within a region species richness increases with the increases in explored area.

10. How many hot spots of biodiversity in the world have been identified till date by Norman Myers? [NEET(Phase-2)-2016]

- (1) 17 (2) 25 (3) 34 (4) 43

Sol. Answer (3)

Today the number of hotspots identified by ecologists is 34 covering an area less than 2% of land surface with about 20% of human population living there.

11. Red list contains data or information on [NEET(Phase-2)-2016]

- (1) All economically important plants (2) Plants whose products are in international trade
(3) Threatened species (4) Marine vertebrates only

Sol. Answer (3)

IUCN [International Union Conservation of Nature and Natural Resources] (or) WCU [World Conservation Union] maintains red list which is a catalogue for threatened species.

12. Which of the following National Parks is home to the famous musk deer or hangul? [NEET(Phase-2)-2016]

- (1) Keibul Lamjao National Park, Manipur (2) Bandhavgarh National Park, Madhya Pradesh
(3) Eaglenest Wildlife Sanctuary, Arunachal Pradesh (4) Dachigam National Park, Jammu & Kashmir

Sol. Answer (4)

Conservation of Musk deer or Hangul.

13. Which of the following is the most important cause of animals and plants being driven to extinction? [NEET-2016]

- (1) Co-extinctions (2) Over-exploitation
(3) Alien species invasion (4) Habitat loss and fragmentation

Sol. Answer (4)

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

14. Which is the National Aquatic Animal of India? [NEET-2016]

- (1) Sea-horse (2) Gangetic shark (3) River dolphin (4) Blue whale

Sol. Answer (3)

River Dolphin is the national aquatic animal of India. This mammal can only survive in pure and fresh water.

15. The species confined to a particular region and not found elsewhere is termed as: [Re-AIPMT-2015]

- (1) Rare (2) Keystone (3) Alien (4) Endemic

Sol. Answer (4)

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

16. Cryopreservation of gametes of threatened species in viable and fertile condition can be referred to as [AIPMT-2015]

- (1) In situ cryo-conservation of biodiversity (2) In situ conservation of biodiversity
(3) Advanced ex-situ conservation of biodiversity (4) In situ conservation by sacred groves

Sol. Answer (3)

Cryopreservation is advanced *ex-situ* conservation of biodiversity.

17. In which of the following both pairs have **correct** combination? [AIPMT-2015]

- | | |
|--|---|
| (1) <i>In situ</i> conservation : Tissue culture | (2) <i>In situ</i> conservation : National Park |
| <i>Ex situ</i> conservation : Sacred groves | <i>Ex situ</i> conservation : Botanical Garden |
| (3) <i>In situ</i> conservation : Cryopreservation | (4) <i>In situ</i> conservation : Seed Bank |
| <i>Ex situ</i> conservation : Wildlife Sanctuary | <i>Ex situ</i> conservation : National Park |

Sol. Answer (2)

In-situ (on site) conservation is within the natural habitat. *Ex-situ* (off site) conservation is outside the natural habitat.

18. A species facing extremely high risk of extinction in the immediate future is called [AIPMT-2014]

- (1) Vulnerable (2) Endemic
(3) Critically Endangered (4) Extinct

Sol. Answer (3)

- Vulnerable – Facing risk of extinction in mid term future.
- Endemic – Belonging or restricted to a particular area.

19. The organization which publishes the Red list of species is [AIPMT-2014]

- (1) ICFRE (2) IUCN (3) UNEP (4) WWF

Sol. Answer (2)

Red list or red book is published and maintained by IUCN.

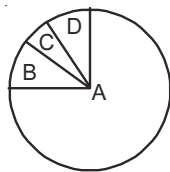
20. An example of ex situ conservation is [AIPMT-2014]

- (1) National Park (2) Seed Bank
(3) Wildlife Sanctuary (4) Sacred Grove

Sol. Answer (2)

In situ conservation strategies – National park, biosphere reserve, sanctuaries, sacred groves.

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



	A	B	C	D
(1)	Insects	Crustaceans	Other animal groups	Molluscs
(2)	Crustaceans	Insects	Molluscs	Other animal groups
(3)	Molluscs	Other animal groups	Crustaceans	Insects
(4)	Insects	Molluscs	Crustaceans	Other animal groups

Sol. Answer (4)

(A) Insects; (B) Molluscs; (C) Crustaceans; (D) Other animals groups.

22. Which of the following are likely to be present in deep sea water ? [NEET-2013]

(1) Eubacteria (2) Blue-green-algae (3) Saprophytic fungi (4) Archaeobacteria

Sol. Answer (4)

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

(1) Lichens (2) Fungi (3) Mosses and Ferns (4) Algae

Sol. Answer (2)

Among mosses, ferns, algae, lichens and fungi, fungi shows maximum diversity.

24. Which one of the following is not used for ex situ plant conservation? [NEET-2013]

(1) Seed banks (2) Shifting cultivation (3) Botanical Gardens (4) Field gene banks

Sol. Answer (2)

Shifting cultivation.

25. Which one of the following areas in India, is a hotspot of biodiversity ? [AIPMT (Prelims)-2012]

(1) Sunderbans (2) Western Ghats (3) Eastern Ghats (4) Gangetic Plain

Sol. Answer (2)

Hot spot of biodiversity is Western Ghats.

26. Select the **correct** statement about biodiversity [AIPMT (Mains)-2012]

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

Sol. Answer (3)

Western Ghats have a very high degree of species richness and endemism.

27. Sacred groves are specially useful in [AIPMT (Mains)-2012]

- (1) Generating environmental awareness
- (2) Preventing soil erosion
- (3) Year-round flow of water in rivers
- (4) Conserving rare and threatened species

Sol. Answer (4)

Sacred groves are specially useful in conserving rare and threatened species.

28. Which one of the following expanded forms of the following acronyms is **correct** ? [AIPMT (Prelims)-2011]

- (1) IUCN = International Union for Conservation of Nature and Natural Resources
- (2) IPCC = International Panel for Climate Change
- (3) UNEP = United Nations Environmental Policy
- (4) EPA = Environmental Pollution Agency

Sol. Answer (1)

- (1) IUCN – International Union for Conservation of Nature and Natural Resources
- (2) IPCC – Intergovernmental Panel on Climate Change to assess green house gases.
- (3) UNEP – United Nations Environmental Programme
- (4) EPA – Environmental Protection Act

29. Which one of the following shows maximum genetic diversity in India ? [AIPMT (Prelims)-2011]

- (1) Mango (2) Groundnut (3) Rice (4) Maize

Sol. Answer (3)

Rice

30. Biodiversity of a geographical region represents [AIPMT (Mains)-2011]

- (1) Genetic diversity present in the dominant species of the region
- (2) Species endemic to the region
- (3) Endangered species found in the region
- (4) The diversity in the organisms living in the region

Sol. Answer (4)

Biodiversity of a geographical region is the diversity in organisms living in particular zone.

31. Which one of the following have the highest number of species in nature ? [AIPMT (Prelims)-2011]

- (1) Angiosperms (2) Fungi (3) Insects (4) Birds

Sol. Answer (3)

32. Which one of the following is an example of *ex-situ* conservation? [AIPMT (Prelims)-2010]

- (1) National park (2) Wildlife sanctuary (3) Seed bank (4) Sacred groves

Sol. Answer (3)

Seed bank is *ex-situ* conservation.

33. A renewable exhaustible natural resource is [AIPMT (Prelims)-2010]

- (1) Forest (2) Coal (3) Petroleum (4) Minerals

Sol. Answer (1)

34. The Indian Rhinoceros is a natural inhabitant of which one of the Indian states? [AIPMT (Mains)-2010]

- (1) Uttarakhand (2) Uttar Pradesh (3) Himachal Pradesh (4) Assam

Sol. Answer (4)

Rhinoceros – Assam

35. Which one of the following has maximum genetic diversity in India? [AIPMT (Prelims)-2009]

- (1) Mango (2) Wheat
(3) Tea (4) Teak

Sol. Answer (1)

India has 1000 genetically different varieties of mango.

36. Tiger is **not** a resident in which one of the following national park ? [AIPMT (Prelims)-2009]

- (1) Sunderbans (2) Gir
(3) Jim Corbett (4) Ranthambhor

Sol. Answer (2)

Gir national park is for lion.

37. Which one of the following is **not** observed in biodiversity hotspots? [AIPMT (Prelims)-2008]

- (1) Species richness (2) Endemism
(3) Accelerated species loss (4) Lesser inter-specific competition

Sol. Answer (4)

Lesser inter-specific competition.

38. The table below gives the populations (in thousands) of ten species (A-J) in four areas (a-d) consisting of the number of habitats given within brackets against each. Study the table and answer the question which follows

Area and Number of habitats	Species, and their populations (in thousands) in the areas									
	A	B	C	D	E	F	G	H	I	J
a (11)	2.3	1.2	0.52	6.0	—	3.1	1.1	9.0	—	10.3
b (11)	10.2	—	0.62	—	1.5	3.0	—	8.2	1.1	11.2
c (13)	11.3	0.9	0.48	2.4	1.4	4.2	0.8	8.4	2.2	4.1
d (12)	3.2	10.2	11.1	4.8	0.4	3.3	0.8	7.3	11.3	2.1

Which area out of a to d shows maximum species diversity?

[AIPMT (Prelims)-2008]

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

Sol. Answer (4)

Maximum species diversity is present in 'd' area.

39. Identify the **odd** combination of the habitat and the particular animal concerned [AIPMT (Prelims)-2007]

- (1) Rann of Kutch – Wild Ass (2) Dachigam National Park – Snow Leopard
(3) Sunderbans – Bengal Tiger (4) Periyar – Elephant

Sol. Answer (2)

40. Which one of the following is being utilized as a source of biodiesel in the Indian countryside?

[AIPMT (Prelims)-2007]

- (1) *Pongamia* (2) *Euphorbia* (3) Beetroot (4) Sugarcane

Sol. Answer (1)

41. Which one of the following pairs of organisms are exotic species introduced in India? [AIPMT (Prelims)-2007]
- (1) Nile perch, *Ficus religiosa* (2) *Ficus religiosa*, *Lantana camara*
(3) *Lantana camara*, Water hyacinth (4) Water hyacinth, *Prosopis cineraria*

Sol. Answer (3)

42. One of endangered species of Indian medicinal plants is that of: [AIPMT (Prelims)-2007]
- (1) *Nepenthes* (2) *Podophyllum* (3) *Ocimum* (4) Garlic

Sol. Answer (2)

Endangered species of India w.r.t. medicinal plant is *Podophyllum*.

43. Which one of the following is not included under *in situ* conservation ? [AIPMT (Prelims)-2006]
- (1) Sanctuary (2) Botanical garden (3) Biosphere reserve (4) National park

Sol. Answer (2)

Botanical garden is *ex-situ* conservation strategy.

44. Which one of the following is the **correctly** matched pair of an endangered animal and a National Park? [AIPMT (Prelims)-2006]
- (1) Lion — Corbett National Park (2) Rhinoceros — Kaziranga National Park
(3) Wild ass — Dudhwa National Park (4) Great Indian bustard — Keoladeo National Park

Sol. Answer (2)

Rhinoceros : Kaziranga national park.

45. Which of the following pairs of an animal and a plant represents endangered organisms in India? [AIPMT (Prelims)-2006]
- (1) *Bentinckia nicobarica* and red panda (2) Tamarind and rhesus monkey
(3) *Cinchona* and leopard (4) Banyan and black buck

Sol. Answer (1)

Bentinckia nicobarica and Red Panda.

46. Which of the following is considered a hot-spot of biodiversity in India? [AIPMT (Prelims)-2006]
- (1) Western ghats (2) Indo-Gangetic plain
(3) Eastern ghats (4) Aravalli hills

Sol. Answer (1)

47. According to IUCN red list what is the status of red Panda (*Ailurus fulgens*)? [AIPMT (Prelims)-2005]
- (1) Vulnerable species (2) Critically endangered species
(3) Extinct species (4) Endangered species

Sol. Answer (4)

Red list, status of *Ailurus fulgens* - Red Panda, is endangered species.

48. One of the most important functions of botanical gardens is that [AIPMT (Prelims)-2005]
- (1) One can observe tropical plants there (2) They allow *ex situ* conservation of germplasm
(3) They provide the natural habitat for wild life (4) They provide a beautiful area for recreation

Sol. Answer (2)

49. Biodiversity act of India was passed by the Parliament in the year [AIPMT (Prelims)-2005]
(1) 1996 (2) 1992 (3) 2002 (4) 2000

Sol. Answer (3)

50. Total number of all species of organisms in a given region is known as the region's
(1) Biota (2) Flora
(3) Fauna (4) Diversity

Sol. Answer (4)

Total number of all species of organisms in a given area called biodiversity.

51. How many bio-geographical regions are present in India?
(1) 3 (2) 4 (3) 7 (4) 10

Sol. Answer (4)

There are 10 bio-geographic regions in India.

52. Diversification in plant life appeared
(1) Due to long periods of evolutionary changes (2) Due to abrupt mutations
(3) Suddenly on earth (4) By seed dispersal

Sol. Answer (1)

Diversification in plants life appeared due to long period of evolutionary changes.

53. Which organization publishes the Red Data Book?
(1) GEF (2) IUCN (3) UNEP (4) WWF

Sol. Answer (2)

Red Data Book is published by IUCN/WCU.

54. If we uncover half of the forest, covering of the earth, what crisis will be produced at most and at first?
(1) Some species will be extincted
(2) Population and ecological imbalance will rise up
(3) Energy crisis will occur
(4) Rest half forests will maintain this imbalance

Sol. Answer (2)

Population and ecological imbalance will rise up.

55. Land mass occupied by forest is about
(1) 30% (2) 60% (3) 11% (4) 22%

Sol. Answer (1)

Land mass occupied by forest is about 30%.

56. Which one of the following have the highest number of species in nature?
(1) Angiosperms (2) Fungi (3) Insects (4) Birds

Sol. Answer (3)

Highest number of species richness among angiosperms, fungi, insects and birds.

57. What is the major cause of diminishing wildlife number?

- (1) Felling of trees
- (2) Paucity of drinking water
- (3) Cannibalism
- (4) Habitat destruction

Sol. Answer (4)

The major causes of diminishing wildlife is habitat destruction.

58. Which of the following communities is more vulnerable to invasion by outside animals and plants?

- (1) Temperate forests
- (2) Oceanic island communities
- (3) Mangroves
- (4) Tropical evergreen forests

Sol. Answer (4)

Tropical evergreen forests.

59. Which part of the world has a high density of organisms?

- (1) Deciduous forests
- (2) Tropical rain forests
- (3) Grasslands
- (4) Savannahs

Sol. Answer (2)

Tropical rain forests.

60. Which group of vertebrates comprises the high number of endangered species ?

- (1) Mammals
- (2) Fishes
- (3) Reptiles
- (4) Birds

Sol. Answer (1)

Highest number of vertebrates which belong to endangered species are mammals.

61. The largest tiger reserve in India is

- (1) Nagarhole
- (2) Valmiki
- (3) Nagarjunsagar-Srisailem
- (4) Periyar

Sol. Answer (3)

The largest tiger reserve in India is Nagarjunsagar-Srisailem.

62. World Summit on Sustainable Development (2002) was held in

- (1) South Africa
- (2) Brazil
- (3) Sweden
- (4) Argentina

Sol. Answer (1)

World Summit on Sustainable Development 2002 was held in South Africa in Johannesburg.

63. Identify the correct match between tiger reserve and its state

- (1) Manas – Assam
- (2) Corbett – Madhya Pradesh
- (3) Bandipur – Tamil Nadu
- (4) Palamau – Orissa

Sol. Answer (1)

Manas – Assam

Corbett – Uttarakhand

Bandipur – Karnataka

Palamau – Jharkhand

64. Which of the following is the matching pair of a sanctuary and its main protected wild animal?

- | | |
|---------------------------|------------------|
| (1) Kaziranga - Musk deer | (2) Gir - Lion |
| (3) Sunderban - Rhino | (4) All of these |

Sol. Answer (2)

Gir - Lion

65. Identify the correctly matched pair

- | | |
|-------------------------|---------------------------|
| (1) Corbett park - Aves | (2) Rann of Kutch - Tiger |
| (3) Gir forest - Rhino | (4) Kaziranga - Elephant |

Sol. Answer (4)

Corbett park - Tiger, Rann of Kutch - Wild ass, Kaziranga - Elephant.

66. The breeding place of *Flamingo* (Hansawar) in India is most likely

- | | | | |
|-------------------|-----------------|------------------|-----------------|
| (1) Rann of Kutch | (2) Ghana Vihar | (3) Sambhar lake | (4) Chilka lake |
|-------------------|-----------------|------------------|-----------------|

Sol. Answer (4)

The breeding place of *Flamingo* (Hansawar) in India is Chilka lake.

67. MAB stands for

- | | |
|-------------------------------|-----------------------------------|
| (1) Mammals And Biosphere | (2) Mammals And Biology Programme |
| (3) Man And Biology Programme | (4) Man And Biosphere Programme |

Sol. Answer (4)

MAB – Man and Biosphere Programme.

68. In your opinion, which is the most effective way to conserve the plant diversity of an area?

- (1) By tissue culture method
- (2) By creating biosphere reserve
- (3) By creating botanical garden
- (4) By developing seed bank

Sol. Answer (2)

The most effective way to conserve the plant diversity of an area by creating biosphere reserve.

69. Which of the following is considered a hot-spot of biodiversity in India?

- (1) Aravalli hills
- (2) Western ghats
- (3) Indo-gangetic plain
- (4) Eastern ghats

Sol. Answer (2)

Hot spot – Western Ghats

70. Viable material of endangered species can be preserved by

- | | | | |
|---------------|------------------|---------------|---------------|
| (1) Gene bank | (2) Gene library | (3) Herbarium | (4) Gene pool |
|---------------|------------------|---------------|---------------|

Sol. Answer (1)

Viable material of endangered species can be preserved by Gene bank.

71. The most important human activity, leading to the extinction of wildlife, is

- (1) Pollution of air and water
- (2) Hunting for valuable wildlife products
- (3) Introduction of alien species
- (4) Alteration and destruction of the natural habitats

Sol. Answer (4)

SECTION - C

Assertion-Reason Type Questions

1. A : Western ghats are included among the hot spots of biodiversity.

R : Western ghats have greater amphibian diversity than eastern ghats.

Sol. Answer (2)

Hot spot biodiversity centre is Western Ghats, it having more amphibian diversity than Eastern Ghats.

2. A : Tropical regions are more diversity rich in comparison to temperate areas.

R : Availability of more solar energy directly affects the presence of more species in these areas.

Sol. Answer (3)

Tropical regions have more diversity due to unchanged environmental conditions as compare to temperature zone. Frequent glaciation do not occur in this area so has high species richness.

3. A : Process of extinction is random and fast.

R : Any species not adapted to environmental conditions cannot survive.

Sol. Answer (4)

Process of extinction is slow.

4. A : Habitat destruction is the main reason of loss of biodiversity.

R : This actually cause the increase in edge area and reduction in core area.

Sol. Answer (3)

5. A : Pristine forests are among *in-situ* conservation strategies.

R : These are sacred grooves where biota is protected on-site.

Sol. Answer (1)

Pristine forests are *in-situ* conservation strategies because these are sacred grooves where biota is protected on site.

6. A : A stable community should show much variation in year to year productivity.

R : It must not be resilient to occasional disturbance.

Sol. Answer (4)

A stable community should not show variation in year to year w.r.t. productivity.

7. A : Biodiversity of the prokaryotes cannot be estimated.

R : Conventional taxonomic methods are not suitable for identification and characterisation of microbes.

Sol. Answer (1)

Biodiversity of micro-organism prokaryotes cannot be estimated because conventional methods are not suitable for identification and characterisation of microbes.

8. A : Biosphere reserves are also included under the *ex-situ* conservation strategies.

R : Cropping and grazing are allowed in the transition zone of biosphere reserve.

Sol. Answer (4)

Biosphere reserve is *in-situ* conservation.

9. A : Taxonomic diversity represents the maximum level of species diversity.

R : It represents species of taxonomically different groups occurring in equal balance.

Sol. Answer (1)

Taxonomic diversity represent maximum level of species diversity, if found at the same area different groups occurring in balance equilibrium.

10. A : Tropics have more biodiversity.

R : Climate of tropical region is more seasonal.

Sol. Answer (3)

Tropics have more diversity because they show less seasonal variation.