

# FOREST AND WILDLIFE

## GEOGRAPHY CLASS 10

1) *Hubbardia Heptaneuron* is a species of \_\_\_\_\_.

- a) Tree
- b) Plant
- c) Grass
- d) Flower

**Answer: (c)**

2) *Madhuca Insignis* (a wild variety of Mahua) is a \_\_\_\_\_.

- a) Plant
- b) Tree
- c) Insect
- d) Birds

**Answer: (a)**

3) The forest and tree cover in India is estimated to be \_\_\_\_\_ of its total geographical area.

- a) Around 30%
- b) Around 24%
- c) Around 35%
- d) Around 40%.

**Answer: Option (b)**

4) The open forests in India are \_\_\_\_\_ of its total geographical area.

- a) Around 9%
- b) Around 20%
- c) Around 15%
- d) Around 1%

**Answer: Option (a)**

5) Blue sheep, Asiatic elephant, Gangetic dolphin are examples of \_\_\_\_\_.

- a) Vulnerable species
- b) Rare species
- c) Endemic Species
- d) Extinct species

**Answer: Option (a)**

6) Asiatic cheetah and pink head duck are examples of \_\_\_\_\_,

- a) Endemic Species

- b) Extinct species
- c) Rare species
- d) Vulnerable species

**Answer: Option (b)**

**7) \_\_\_\_\_ is an example of Endemic Species.**

- a) Pink head duck
- b) Asiatic cheetah
- c) Asiatic buffalo
- d) Nicobar pigeon

**Answer: option (d)**

**8) \_\_\_\_\_ was declared extinct in India long back in 1952.**

- a) Andaman wild pig
- b) Andaman teal
- c) Asiatic Cheetah
- d) Desert fox

**Answer: Option (c)**

**9) \_\_\_\_\_ are the species which are in danger of extinction.**

- a) Endangered Species
- b) Rare Species
- c) Extinct Species
- d) Endemic Species

**Answer: Option (a)**

**10) Blackbuck, crocodile, Indian wild donkey and Indian rhino are examples of \_\_\_\_\_.**

- a) Normal Species
- b) Endangered Species
- c) Endemic Species
- d) Rare Species

**Answer: Option (b)**

**11) Substantial parts of the tribal belts, especially in the Northeastern and \_\_\_\_\_, have been deforested or degraded by shifting cultivation (jhum), a type of 'slash and burn' agriculture.**

- a) Central India
- b) Western India
- c) South India
- d) Northwest India

**Answer: Option (a)**

**12) The Buxa Tiger Reserve in West Bengal is seriously threatened by the ongoing \_\_\_\_\_.**

- a) Coal mining

- b) Iron ore mining
- c) Copper mining.
- d) Dolomite mining

**Answer: Option (d)**

**13) Teak monoculture has damaged the natural forest in \_\_\_\_\_.**

- a) North India
- b) South India
- c) Central India
- d) Northeastern India

**Answer: Option (b)**

**14) The Himalayan yew (*Taxus wallichiana*) is a medicinal plant found in various parts of \_\_\_\_\_ and \_\_\_\_\_.**

- a) Himachal Pradesh and Arunachal Pradesh
- b) Uttarakhand and Assam
- c) Uttarakhand and Ladakh
- d) Jammu & Kashmir and Sikkim

**Answer: Option (a)**

**15) A chemical compound called 'taxol', which is extracted from the bark, needles, twigs and roots of Himalayan yew, is used to treat \_\_\_\_\_, and it is the biggest selling drug in the world for the treatment of this disease.**

- a) Tuberculosis
- b) Malaria
- c) Diabetes
- d) Cancer

**Answer: Option (d)**

**16) The Indian Wildlife (Protection) Act was implemented in \_\_\_\_\_, with various provisions for protecting habitats.**

- a) 1972
- b) 1975
- c) 1971
- d) 1974

**Answer: option (a)**

**17) Which of the following animals were gravely threatened, and the Central Government announced several projects for protecting them?**

- a) Kashmir stag
- b) The Asiatic lion
- c) One-horned rhinoceros
- d) All of the above

**Answer: Option (d)**

**18) Manas Tiger Reserve is located in \_\_\_\_.**

- a) Tamil Nadu
- b) Kerala
- c) Assam
- d) Orissa

**Answer: Option (c)**

**19) Which of the following is located in the state of Rajasthan?**

- a) Corbett National Park
- b) Bandhavgarh National Park
- c) Periyar Tiger Reserve
- d) Sariska Wildlife Sanctuary

**Answer: Option (d)**

**20) \_\_\_\_\_ has the largest area under permanent forests, constituting 75 per cent of its total forest area.**

- a) Orissa
- b) Madhya Pradesh
- c) Chhattisgarh
- d) Assam

**Answer: Option (b)**

1. The species which are in danger of extinction are called:

- (a) Vulnerable species
- (b) Rare species
- (c) Endangered species
- (d) Normal species

Answer: c

2. The forest cover in our country has recently increased due to:

- (a) Increase in natural forest growth
- (b) Increase in net sown area
- (c) Plantation by different agencies
- (d) None of the above

Answer: c

3. The species whose population has declined to a level from where it is likely to move into the endangered category in the near future if the negative factors continue to operate are called:

- (a) Endemic species
- (b) Extinct species

- (c) Vulnerable species
- (d) Normal species

Answer: c

4. The Himalayan brown bear is an example of:

- (a) Vulnerable species
- (b) Rare species
- (c) Endemic species
- (d) Extinct species

Answer: b

5. Substantial parts of the tribal belts in north-eastern India, have been deforested by:

- (a) Shifting cultivation
- (b) Mining
- (c) Infrastructure development
- (d) None of the above

Answer: a

6. Species which are only found in some particular areas isolated by geographical barriers are called:

- (a) Extinct species
- (b) Endemic species
- (c) Rare species
- (d) Critical species

Answer: b

7. The Asian cheetah was declared extinct in India in the year:

- (a) 1951
- (b) 1952
- (c) 2010
- (d) 1975

Answer: b

8. The Buxar Tiger Reserve is seriously threatened by:

- (a) Iron ore mining
- (b) Oil exploration
- (c) Dolomite mining in that area
- (d) Volcanic eruption in that area

Answer: c

9. The Himalayan yew is:

- (a) an insect
- (b) a medicinal plant
- (c) a mammal
- (d) a bird

Answer: b

10. The Himalayan yew is found in parts of:

- (a) Himachal Pradesh and Arunachal Pradesh
- (b) Punjab and Haryana
- (c) West Bengal and Kerala
- (d) Madhya Pradesh and Goa

Answer: a

11. Extensive planting of a single commercially valuable species is called:

- (a) Jhumming
- (b) Intensive subsistence farming
- (c) Mixed farming
- (d) Enrichment plantation

Answer: d

12. Teak monoculture has damaged the natural forests in:

- (a) Ganga Plain
- (b) South India
- (c) Brahmaputra Plain
- (d) None of the above

Answer: b

13. Chir Pine plantations in the Himalayas have replaced the:

- (a) Himalayan Oak and Rhododendron
- (b) Teak and Sal
- (c) Babul and Mexican kikar
- (d) None of the above

Answer: a

14. Which one of the following is not responsible for the decline in India's biodiversity?

- (a) Mining activities
- (b) Hunting and poaching

- (c) Forest fire
- (d) Afforestation

Answer: d

15. Which one of the following is not a direct outcome of environmental destruction?

- (a) Biological loss
- (b) Loss of cultural diversity
- (c) Severe droughts
- (d) River Valley Projects

Answer: c

16. We need to conserve our forests and wildlife:

- (a) to preserve the ecological diversity
- (b) to preserve the genetic diversity
- (e) for maintenance of aquatic biodiversity
- (d) so that we are able to over-extract plant and animal species

Answer: d

17. The Indian Wildlife Protection Act was implemented in:

- (a) 1972
- (b) 1971
- (c) 2010
- (d) 1982

Answer: a

18. Which is not a threat to tiger population in India?

- (a) Shrinking habitat
- (b) The trade of tiger skins
- (c) Use of their bones in traditional medicines
- (d) "Project Tiger"

Answer: d

19. Reserved and protected forests are also referred to as:

- (a) Unclassed forest
- (b) Permanent forest estate
- (c) Open forest
- (d) Mangrove forest

Answer: b

20. Unclassed forests are mainly found in:
- (a) All north-eastern states and parts of Gujarat
  - (b) Kerala and Tamil Nadu
  - (c) Punjab and Haryana
  - (d) West Bengal and Bihar

Answer: a

21. Sacred Groves are:
- (a) parts of large forests that have been left untouched by the local people.
  - (b) places for grazing animals.
  - (c) forests earmarked for commercial felling of trees.
  - (d) forests used for planting trees with medicinal properties.

Answer: a

22. The Chipko Movement in the Himalayas to protect the forest cover was started by
- (a) Sunder Lai Bahuguna
  - (b) Dr Anil Agarwal of CSE
  - (c) Dr Aruna Roy of Kisan Mazdur Vikas
  - (d) Medha Patkar

Answer: a

23. How many tiger reserves are there in India:
- (a) 10
  - (b) 15
  - (c) 27
  - (d) 29

Answer: c

24. Which of these statements is not a valid reason for the depletion of flora and fauna?
- (a) Agricultural expansion
  - (b) Large-scale development projects
  - (c) Grazing and fuel wood collection
  - (d) Rapid industrialisation and urbanisation

Answer: d

25. Which of the following conservation strategies do not directly involve community participation? (Textbook)
- (a) Joint forest management



- (b) Beej Bachao Andolan
- (c) Chipko Movement
- (d) Demarcation of Wildlife Sanctuaries

Answer: d

**DIRECTION :** In the following questions, a statement of assertion is followed by a statement of reason. Mark the correct choice as :

- (a) If Both assertion and reason are true and reason is the correct explanation of assertion.
- (b) If Both assertion and reason are true but reason is not the correct explanation of assertion.
- (c) If Assertion is true but reason is false.
- (d) If Both assertion and reason are false.

**Assertion :** Forests plays a key role in the ecological system.

**Reason :** Forest are the primary producers on which all other living beings depend.

**Ans :** (a) Both assertion and reason are true and reason is the correct explanation of assertion.

**The plants, animals and micro-organisms re-create the quality of the air we breathe, the water we drink and the soil that produces our food without which we cannot survive. Thus, we are very much dependent on this system for our own existence.**

**Assertion :** Neglect of our environment has led to the destruction and extinction of many species of animals and plant life.

**Reason :** Decreasing Forest cover area is a major reason of destruction of species.

**Ans :** (a) Both assertion and reason are true and reason is the correct explanation of assertion.

**Vanishing forests are the major reason for the extinction of species of animals and plant life. Thus, neglecting our environment has led to dire consequences.**

**Assertion :** Depletion of forests causes a lot of danger.

**Reason :** Forests are vital for the quality of life and environment.

**Ans :** (a) Both assertion and reason are true and reason is the correct explanation of assertion.

**Depletion of forests causes a lot of danger. Water scarcity, drought and deforestation induced floods are some of the dangers. Thus, forests are vital for the quality of life and environment.**

**Assertion :** Large-scale development projects have also contributed significantly to the loss of forests.

**Reason :** Large scale development projects doesn't inundate hectares of forest.

**Ans :** (c) Assertion is true but reason is false.

**Clearing of forests is still continuing with projects like the Narmada Sagar Project in Madhya Pradesh which would inundate large areas of forests. Thus, contributing significantly to the loss of forests.**

**Assertion :** Himalayan Yew is a medicinal plant

**Reason :** It has healing qualities.

**Ans :** (a) Both assertion and reason are true and reason is the correct explanation of assertion.

**A chemical compound called 'taxol' is extracted from the bark, needles, twigs and roots of this tree, and it has been successfully used to treat some cancers.**

**Assertion :** We need to conserve our forests and wildlife.

**Reason :** Rapid decline in wildlife population and forestry has been observed.

**Ans :** (a) Both assertion and reason are true and reason is the correct explanation of assertion.

**Conservation preserves the ecological diversity and our life support systems and also preserves the genetic diversity of plants and animals for better growth of species and breeding. Thus, there is a dire need for conservation our forests and wildlife.**

**Assertion :** Tiger population is not on the verge of extinction.

**Reason :** Tiger population in forests is increasing rapidly day by day.

**Ans :** (d) Both assertion and reason are false.

**Tiger population is on the verge of extinction and the major threats to tiger population are numerous, such as poaching for trade, shrinking habitat, depletion of prey base species, growing human population.**

**Assertion :** Destruction of forests and wildlife resulted into the loss of cultural diversity.

**Reason :** The conservation of forests and wildlife is essential to provide a better quality of life.

**Ans :** (b) Both assertion and reason are true but reason is not the correct explanation of assertion.

**The destruction of forests and wildlife has affected the livelihood of many communities who are dependent oh forests. Thus, resulting in loss of cultural diversity and severe droughts and floods. However the Season does not explain the assertion.**

**Assertion :** The tree is a peculiar organism of unlimited kindness.

**Reason :** Trees are living organisms which makes no demands for its sustenance, and extends generously the products of its life activity.

**Ans :** (a) Both assertion and reason are true and reason is the correct explanation of assertion.

**It affords protection to all beings, offering shade even to the axe men who destroy it. Therefore, the tree is an organism of unlimited kindness that extends generosity to humanity.**

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Question 1.

Name four animals and two species of flora which are on the verge of extinction.

Answer:

Animals and plants on the verge of extinction:

Four animals: Cheetah, pink-headed duck, mountain quail, forest spotted owlet.

Two plants:

1. Wild mahua (*Madhuca insignis*)
2. *Hubbardia heptaneuron* (a species of grass).

Question 2.

Name six groups of flora and fauna under which they are classified by International Union for Conservation of Nature and Natural Resources (IUCN).

Answer:

1. Normal species  
Species, whose population levels are considered to be normal for their survival.
2. Endangered species  
Species, which are in danger of extinction because their population is declining. For example, Black buck, Indian rhino, lion-tailed macaque and Indian wild ass.
3. Vulnerable resources  
These are the species whose population has declined so much that they are likely to move into endangered category in the near future, if negative factors continue to operate. For example, Blue sheep, Asiatic elephant, Gangetic dolphin.
4. Rare species  
Species with small population. If care is not taken they may

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also become endangered species. For example, Himalayan Brown bear, desert fox, wild Asiatic buffalo, hornbill.

5. Endemic species

Species which are only found in particular areas usually isolated by natural or geographical barriers. For example, Andaman teal, Nicobar pigeon, Andaman wild pig.

6. Extinct species

These are species which are not found after searches of known or likely areas where they may occur, i.e., the species which were existing earlier, but are not seen today.

Question 4.

Name any four resources which are obtained from our biodiversity.

Answer:

The resources are: wood, rubber, medicines and dyes.

Question 5

Write four major reasons for the depletion of forest cover.

Answer:

1. Deforestation for agricultural purposes.
2. Shifting cultivation which is still practised in substantial parts of tribal belts.
3. Large-scale development of river valley projects.
4. Mining activities have also resulted in deforestation. For example, the tiger reserve in West Bengal is seriously threatened by the ongoing dolomite mining.
5. Environmental pollution and forest fires have also led to depletion of forests.

Question 6.

Write three adverse impacts of dolomite mining in the Buxar Tiger Reserve on the ecosystem.

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Answer:

Adverse effects of dolomite mining in the Buxar Tiger Reserve:

1. It has caused ecological damage.
2. It has blocked the migration route of several species.
3. It has disturbed the natural habitat of many species.

Question 7.

List six factors which have led to the decline in India's biodiversity.

Answer:

1. Habitat destruction
2. Over-exploitation
3. Environmental pollution
4. Forest fires
5. Hunting and Poaching
6. Poisoning

Question 8.

Write four most important causes of environmental destruction/degradation.

Answer:

1. Unequal access to resources.
2. Inequitable consumption of resources.
3. Differential sharing of responsibility for environmental well being.
4. Over-population.

Question 9.

"The destruction of biodiversity is highly correlated with the loss of cultural diversity." Give four facts to support this statement.

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Answer:

Such losses have:

1. Increasingly marginalised and impoverished many forest dependent communities.
2. Among the poor, women are affected more than men, for women bear the major responsibility of basic subsistence needs. With the depletion of these resources, the drudgery of women increased for they had to walk for more than 10 km to collect these resources which, in turn, affected their health and negligence of home and children.
3. The indirect impact of degradation, eg. drought or floods etc. also hits the poor the hardest.
4. Poverty is a direct outcome of environmental destruction.

Question 10.

Why do we need to conserve our biodiversity?

Answer:

Conservation of biodiversity is necessary because it:

1. Preserves the ecological diversity.
2. Preserves our life support systems, i.e., water, air and soil.
3. Preserves the genetic diversity of plants and animals for better growth and breeding of species.
4. Fisheries too are heavily dependent on the maintenance of aquatic biodiversity.

Question 11.

List various provisions made by “The Indian Wildlife (Protection) Act 1972” for protecting habitats.

Answer:

1. An All India list of protected species was published.
2. The thrust was on protecting the remaining population of certain endangered species by-

- 
- banning hunting;
  - giving legal protection to their habitats and
  - restricting trade in wildlife.

Question 12.

Write four steps taken by the Government for conservation of wildlife.

Answer:

Five steps that have been taken to protect the wildlife in India:

1. Under the Indian Wildlife Protection Act 1972, an All India list of protected species was published. The thrust was on protecting the remaining population of certain endangered species by –
  - banning hunting,
  - giving legal protection to their habitats and
  - restricting trade in wildlife.
2. Many wildlife sanctuaries have been developed and National Parks have been set up.
3. Many projects have been started for protecting specific animals which were gravely threatened, eg. Project Tiger, One-horned Rhino, the Kashmir Stag (hangul), three types of crocodiles —the fresh water, salt-water and Gharials, the Asiatic Lion, etc.
4. Most recently, some animals have been given full or partial legal protection against hunting and trading throughout India, eg., Indian elephant, black buck, great Indian bustard and the snow leopard, etc.
5. Setting up of biosphere reserves for conserving flora and fauna in their natural surroundings and protection of wetland ecosystems is another step taken in this direction.

Question 13.

Which agency manages forests in India? Name three broad categories in which the forests are classified.



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Answer:

The forests in India are owned and managed by the Government through the Forest Department.

They are classified under the following categories:

1. Reserved Forests
2. Protected Forests
3. Unclassed Forests

Question 14.

What are 'Permanent Forest Estates' and why? Which state has maximum forest cover falling under this category? Write its percentage share in the total forest area of this state.

Answer:

Reserved and protected forests are referred to as the Permanent Forest Estates maintained for the purpose of producing timber and other forest produce.

Madhya Pradesh has the largest area under permanent forests, constituting 75% of its total forest area.

Question 15.

Write the major differences between reserved and protected forests.

Answer:

Difference between Reserved and Protected forests

Reserved forests	Protected forests

1. They cover more than half of the total forest area.	1. Almost $\frac{1}{3}$ of the total forest area is protected forest.
2. They are most valuable from the point of view of forest and wildlife conservation.	2. These forest lands are protected from any further depletion.

Question 16.

Name five states which have large reserved and protected forests respectively.

Answer:

Five states having large percentages of reserved forests are: Jammu and Kashmir, Andhra Pradesh, Uttarakhand, Kerala, Tamil Nadu, West Bengal and Maharashtra.

Protected Forests: Bihar, Haryana, Punjab, Himachal Pradesh, Orissa and Rajasthan.

Question 17.

What are unclassified forests? Name two areas which have high percentages of their forests as unclassified forests.

Answer:

Unclassified forests are the other forests and waste lands belonging to both Government and private individuals as well as local communities.

Two areas with high percentage of unclassified forests are: North-Eastern states and parts of Gujarat.

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Question 18.

Write three examples of conservation of biodiversity at community level. (2025)

Answer:

Three examples of community participation:

1. In 'Sariska Tiger Reserve', Rajasthan, villagers have fought against mining by citing the Wildlife Protection Act. In many areas, villagers themselves, are protecting habitats and explicitly rejecting Government involvement.
2. The inhabitants of five villages in the Alwar District of Rajasthan have declared 1200 hectares of forest as the 'Bhairodev Dakav Sonchuri', declaring their own set of rules and regulations, which do not allow hunting, and are protecting the wildlife against any outside encroachments.
3. The famous Chipko Movement in the Himalayas has successfully resisted deforestation and has also shown that community afforestation with indigenous species can be a great success.

Question 19.

Explain the 'Beej Bachao Andolan' and 'Navdanya' concept.

Answer:

Farmers and Citizens' groups like the Beej Bachao Andolan in Tehri and Navdanya have shown that adequate levels of diversified crop production without the use of synthetic chemicals are possible and economically viable.

Question 20.

Write two characteristics of Joint Forest Management Programme and its two benefits for the community. Which Indian state started this programme first of all and when?

Answer:

Joint Forest Management Programme involves local communities in the management and restoration of degraded

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forests. It was first started in Orissa in 1988.

Two characteristics: It depends on—

1. the formation of local (village) institutions that undertake protection activities mostly on degraded forest land managed by the Forest Department and
2. the local communities also work towards restoration of such degraded forests.

Two benefits:

1. The members of these communities are entitled to intermediary benefits like non-timber forest products.
2. They are also entitled to share in the timber harvested by ‘successful protection’.

Question 21.

What is biodiversity? Why is biodiversity important for human lives? Give three points.

Answer:

Biodiversity denotes variety of living beings, including all types of organisms, plants and wildlife, diverse in form and functions but closely integrated in a system through multiple network of interdependencies. Its importance: We humans along with all living organisms form a complex web of ecological systems in which we are only a part and are dependent on this system for our own existence. For example, the plants, animals and micro-organisms recreate—

- the quality of the air we breathe,
- the water we drink and
- the soil that produces our food without which we cannot survive. Forests play a key role in the ecological system as these are also the primary producers on which all other living beings depend not only for food but indirectly for

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many other forest produces which are used for varied purposes. So this biodiversity maintains an ecological balance and our life support systems (air, water and soil).

Question 22.

Write a brief note on 'Project Tiger'.

Answer:

'Project Tiger' was one of the well-published wildlife campaigns in the world, launched in 1973. Initially it had shown an increase in tiger population till 1989 but in 1993 the tiger population dropped. There are 27 tiger reserves in India covering an area of 37,761 sq km.

Tiger conservation has been viewed not only as an effort to save the endangered species but with equal importance as a means of preserving biotypes of sizeable magnitude. Corbett National Park, (Uttarakhand), Sundarbans National Park (West Bengal), Bandhavgarh National Park (Madhya Pradesh), Sariska Wildlife Sanctuary (Rajasthan) Manas Tiger Reserve (Assam) and Periyar Tiger Reserve (Kerala) are some of the reserves in India.

Question 23.

Give an account of the forest cover in India.

Answer:

The dimensions of deforestation in India are staggering. The forest and tree cover in the country is estimated at 79.42 million hectare, which is 24.16% of the total geographical area (dense forest 12.2%; open forest 9.14%; and mangrove 0.14%).

According to the State of Forest Report (2015), the dense forest cover has increased by 3,775 sq km since 2013. However, this apparent increase in the forest cover is due to conservation measures, management interventions and plantation, etc., by different agencies.

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Question 24.

Give an account of the Himalayan Yew highlighting its importance.

Answer:

The Himalayan Yew is in trouble. The Himalayan Yew (*Taxus wallachiana*) is a medicinal plant found in various parts of Himachal Pradesh and Arunachal Pradesh. A chemical compound called 'taxol' is extracted from the bark, needles, twigs and roots of this tree, and it has been successfully used to treat some cancers-the drug is now the biggest selling anti-cancer drug in the world.

The species is under great threat due to over-exploitation. In the last one decade, thousands of yew trees have dried up in various parts of Himachal Pradesh and Arunachal Pradesh.

Question 25.

Give the main characteristics of the Asiatic Cheetah. Where has it gone?

Answer:

The world's fastest land mammal, the cheetah (*Acinonyx jubatus*), is a unique and specialised member of the cat family and can move at the speed of 112 km./hr. The cheetah is often mistaken for a leopard. Its distinguishing marks are the long teardrop shaped lines on each side of the nose from the corner of its eyes to its mouth. Prior to the 20th century, cheetahs were widely distributed throughout Africa and Asia. Today, the Asian cheetah is nearly extinct due to a decline of available habitat and prey. The species was declared extinct in India long back in 1952.

Question 26.

'33% of area should be under forests'. Justify the statement highlighting the environmental values of forests.

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Answer:

Forest area in the country is far lower than the desired 33% of geographical area, as outlined in the National Forest Policy (1952). Forests are considered essential for maintenance of the ecological balance. The livelihood of millions of people who live on the fringes of these forests depend upon it.

Forests play a key role in the ecological system as these are also the primary producers on which all other living beings depend. The forest preserves the ecological diversity and our life support systems—water, air and soil. It also preserves the genetic diversity of plants and animals for better growth of species and breeding. The destruction of forests have marginalised and impoverished many indigenous forest dependent communities. The indirect impact of degradation is severe drought or induced floods. Poverty is a direct outcome of environmental destruction.

Question 27.

Assess the need for the conservation of forests and wildlife in India.

Answer:

There is a need to conserve the forests and wildlife in India:

- Conservation of biodiversity is necessary because it preserves the ecological diversity.
- Forests and wildlife preserve our life support systems, i.e., water, air and soil. For example, the plants, animals and micro-organisms recreate the quality of the air we breathe, the water we drink and the soil that produces our food without which we cannot survive.
- It also preserves the genetic diversity of plants and animals for better growth and breeding of species. For example, in agriculture we are still dependent on traditional crop varieties.

- Fisheries too are heavily dependent on the maintenance of aquatic biodiversity.
- Forests are primary producers on which all other living beings depend not only for food but indirectly for many other forest produces which are used for varied purposes.

# EXTRAAMAAA AMMUNITION

### Very Short Answer Type Questions

## 1. What is biodiversity?

**Answer:** It is the sum total of all the varieties of species of plants, animals and microorganisms living on the earth.

## 2. What is flora?

**Answer:** Plants of particular region or period are referred to as flora.

### 3. What is fauna?

**Answer:** Species of animals of a particular region or period are referred as fauna.

**4. "India is one of the world's richest countries in terms of its vast array of biological diversity". Justify.**

**Answer:** India has nearly 8% of the total number of species in the world.

## 5. What is IUCN?

**Answer:** International Union for Conservation of Nature and Natural Resources.



**6. What are normal species?**

**Answer:** Species whose population levels are considered to be normal for their survival are classified as normal species.

**7. What are endemic species?**

**Answer:** Species which are found in some particular areas usually isolated by natural or geographical barriers.

**8. What are endangered species?**

**Answer:** The species, which are in danger of extinction are called endangered species.

**9. What are vulnerable species?**

**Answer:** The species whose population has declined to levels from where it is likely to move into the endangered category in the near future if the negative factors continue to operate.

**10. What are extinct species?**

**Answer:** The species which are not found after searches of known or likely areas where they may occur.

**11. Give two examples of rare species?**

**Answer:** (i) Wild Asiatic buffalo (ii) Hombill

**12. Categorise the following as endangered or vulnerable species- Asiatic elephant, Indian Rhino.**

**Answer:** (i) Asiatic elephant – Vulnerable species.  
(ii) Indian Rhino – Endangered species.

**13. Categorise the following as extinct or normal species- Pine, Asiatic Cheetah.**

**Answer:** (i) Pine – Normal species  
(ii) Asiatic Cheetah – Extinct species

**14. Categorise the following as endemic and endangered species- Lion tailed macaque, Nicobar Pigeon.**

**Answer:** (i) Lion tailed macaque – Endangered.  
(ii) Nicobar pigeon – Endemic.

**15. Mention any two factors responsible for depleting our forests and wildlife.**

**Answer:** (i) Expansion of agriculture (ii) Mining

**16. Name the Tiger Reserve which is seriously threatened by dolomite mining activity.**

**Answer:** The Bauxa Tiger Reserve in West Bengal.

**17. Mention a social impact of deforestation.**

**Answer:** In many societies, women bear the major responsibility of collection of fuel, fodder, water and other basic subsistence needs. As these resources are depleted, the drudgery of women increases and sometimes they have to walk for more than 10 km to collect these resources.

**18. Mention any wildlife protection programme?**

**Answer:** The Indian Wildlife Act 1972.

**19. Mention any one step which was undertaken under Indian Wildlife Act to protect the wildlife.**

**Answer:** Trade in wildlife was declared illegal.

**20. What are permanent forests?**

**Answer:** Reserved and protected forests are known as permanent forests.

**21. Which state has the largest area under permanent forests?**

**Answer:** Madhya Pradesh. \* .

**22. Name any two states which' have large percentage of reserved forests of its forest area.**

**Answer:** Jammu and Kashmir and Andhra Pradesh.

**23. Name any two states which have bulk of its forests area under protected forests.**

**Answer:** Punjab and Haryana.

**24. Name any two states which have bulk of its forests area under unclassed forests.**

**Answer:** Assam and Tripura.

**25. Name the place of state where people have fought against mining by citing the Wildlife Protection Act.**

**Answer:** Sariska Tiger Reserve – Rajasthan.

**26. What is Chipko Movement?**

**Answer:** It was a movement launched by the people of the Himalayas against deforestation.

**27. Name any two farmers/citizens group which have shown that adequate levels of diversified crop production without use of synthetic chemicals are possible and economically viable.**

**Answer:** Beej Bachao Andolan and Navdanya

**28. What is JFM?**

**Answer:** JFM (Joint Forest Management) was a movement launched to manage and restore degraded forests by involving the local communities.

**29. Name the state which was first to pass the JFM resolution.**

**Answer:** Odisha

**30. Name any four movements which were launched by local communities for the protection of forests or wildlife.**

**Answer:** (a) Chipko Movement

- (b) Beej Bachao Andolan
- (c) Narmada Bachao Andolan
- (d) Bhairodev Dakav Sonchuri

## Short Answer Type Questions

### 1. What is biodiversity?

**Answer:** Biodiversity is the sum total of all the varieties of species of plants, animals and micro-organisms living on the earth. It also includes the habitat in which they live. Some scientists estimate that more than 10 million species live on our earth and some believe that this number can be more than 100 million.

### 2. What is importance of forests?

**Answer:** (i) Forests play a key role in the ecological system as these are the primary producers on which all other living beings depend.  
(ii) Many forest dependent communities directly depend on them for food, drink, medicine, culture, spirituality etc.  
(iii) Forest provide us timber.  
(iv) Forests also provide bamboo, wood for fuel, grass, charcoal, fruits, flowers, etc.

### 3. "The diverse flora and fauna of India is under threat". Justify by giving reasons.

**Answer:** (i) At least 10% of India's recorded wild flora and 20% of its mammals are on the threatened list.  
(ii) The cheetah, pink-headed duck, mountain quail, forest spotted owl, and plants like madhuca insignis (a wild variety of mahua) and hubbardia heptaneuron (a species of grass) have already been categorised as critical, i.e. they are on the verge of extinction.  
(iii) Many smaller animals like insects and plants have become extinct.

**4. What are Normal species? How are these different from endangered species. Give four examples.**

**Answer:** Normal species are the species whose population levels are considered to be normal for their survival, such as cattle, sal, pine, rodents, etc. Whereas the endangered species are the species which are in danger of extinction. The survival of such species is difficult if the negative factors that have led to a decline in their population continue to operate. Black buck, crocodile, Indian wild ass, Indian rhino, lion tailed macaque, etc., are examples of endangered species.

**5. What are Vulnerable species? Give four examples.**

**Answer:** These are the species whose population has declined to levels from where it is likely to move into the endangered category in the near future if the negative factors continue to operate such species. The examples of such species are Blue sheep, Asiatic elephant, Gangetic dolphin, etc.

**6. What are Rare species? Give four examples.**

**Answer:** Species with small population may move into the endangered or vulnerable category if the negative factors affecting them continue to operate. The examples of such species are the Himalayan brown bear, Wild Asiatic buffalo, Desert fox and hornbill, etc.

**7. What are Endemic species? Give four examples.**

**Answer:** The species which are only found in some particular region usually isolated by natural or geographical barriers. The examples of such species are the Andaman teal, Nicobar pigeon, Andaman wild pig, etc.

**8. What are Extinct species? Give four examples.**

**Answer:** These species which are not found after searches of known or likely areas where they may occur. These species may be extinct from a local area,

region, country, continent or the whole earth. The examples of such species are the Asiatic cheetah, pink headed duck, etc.

**9. Large scale development projects have also contributed significantly to the loss of forests. Explain.**

**Answer:** (i) Since 1951, over 5,000 square kilometres of forests were cleared for river valley projects.

(ii) Clearing of forests is still continuing because of new projects like the Sardar Sarovar Project, the Ranjit Sagar Dam Project, etc. Many wildlife sanctuaries are seriously threatened due to large scale mining activities.

**10. (i) Which factor is often cited as the cause of environmental degradation in the third world countries?**

**(ii) Mention any four factors which have led to the decline of India's biodiversity.**

**Answer:** (i) Overpopulation.

(ii) (a) Habitat destruction

(b) Hunting

(c) Poaching

(d) Overexploitation

(e) Environmental pollution

(f) Forest fires.

**11. "Developed countries and rich people are considered the major factors for environmental degradation." Explain.**

**Answer:** (i) Developed countries consume more resources than underdeveloped or developing countries. For example an average American consumes 40 times more resources than an average Somalian.

(ii) The rich class probably causes more ecological damage than the poor class because energy consumption level of the rich is high as compared to poor.

(iii) Rich people use non-renewable resources on a large scale.

**12. "Grazing and fuel-wood collection are not responsible for deforestation in India." Support the statement with suitable reasons.**

**Answer:** (i) Overgrazing destroys the saplings and plants are torn out by the roots by animals.

(ii) Overgrazing also leads to soil erosion. Soil erosion is one of the important factors for deforestation.

(iii) While collecting fuel wood the locals also destroy the trees, which leads to deforestation.

**13. "The conservation projects are now focusing on biodiversity rather than on a few of its components." Explain.**

**Answer:** (i) Inclusion of small insects and other animals in planning : Under the new plans, even insects and other smaller species of animals are beginning to find a place in conservation planning.

(ii) New notifications : In the notification under the Wildlife Act of 1980 and 1986, several hundred butterflies, moths, beetles, and one dragonfly have been added to the list of protected species. In 1991, for the first time, plants were also added to the list, starting with six species.

**14. With reference to the type and distribution of forests, answer the following questions:**

**(i) How are they classified?**

**(ii) Which type of forests are regarded most valuable as far as the conservation of forest and wildlife resources are concerned?**

**Answer:** (i) (a) Reserved forests

(b) Protected forests

(c) Unclassed forests.

(ii) Reserved forests.

**15 Define the following:**

**(i) Reserved forests**

**(ii) Protected forests**

### **(iii) Unclassed forests**

**Answer:** (i) Reserved forests : These are forests which are permanently earmarked either to the production of timber or other forest produce and in which right of grazing and cultivation is seldom allowed.

(ii) Protected forests : These are forests in which the right of grazing and cultivation are allowed subject to a few minor restrictions.

(iii) Unclassed forests : These consist largely of inaccessible forests or unoccupied wastes.

### **16. (a) What was the Chipko Movement?**

#### **(b) What is JFM? What is its objective?**

#### **(c) Name the state which took initiative for the Joint Forest Management.**

**Answer:** (a) (i) The movement was launched in the Himalayas against deforestation.

(ii) The movement has also shown the community afforestation with indigenous species can be enormously successful.

(iii) The movement has highlighted the role of local communities in forest conservations.

(b) It is Joint Forest Management. It is programme which involves local communities in the management and restoration of degraded forests.

(c) Odisha.

### **17. (i) Name any two states which have the largest area under permanent forests (ii) Name any four states which have a large area under reserved forests.**

#### **(ii) Name any four states which have the large area under unclassified forests.**

**Answer:** (i) (a) Madhya Pradesh

(b) Jharkhand

(ii) (a) Jammu and Kashmir

(b) Andhra Pradesh



- (c) Uttarakhand
- (d) Kerala
- (iii) (a) Gujarat
- (b) Manipur
- (c) Assam
- (d) Sikkim

**18. 'India has rich flora and fauna.' Explain.**

**Answer:** (i) India is one of the world's richest countries in terms of its vast array of biological diversity.  
(ii) It has nearly 8% of the total number of species in the world. (1.6 million approximately.)  
(iii) Of the estimated 47,000 plant species, about 15,000 flowering species are indigenous to India.

**19- Mining is one of the major important factors responsible for deforestation. Explain.**

**Answer:** (i) Mining operation needs big machines, labour, roads, railways, etc. All these lead to deforestation.  
(ii) The Buxar Tiger Reserve in West Bengal is seriously threatened due to mining operations. The mining operations have caused severe ecological damage to the Reserve and region around.  
(iii) The mining activities have blocked the migration route of several species, including the great Indian elephants, thus, disturbing their natural habitat.

**20. What are the main objectives of JFM?**

**Answer:** (i) Under the Joint Forest Management programme, local communities are involved in the management and restoration of degraded forests.  
(ii) The major purpose of the JFM is to protect the forests from encroachments, grazing, theft and fire and also to improve the forests in accordance with an approved Joint Forest Management plan.

(iii) In return, the members of these communities are entitled to intermediary benefits like non-timber forest produces.

**21. Highlight any three differences between endangered species and extinct species.**

**Answer:**

**Endangered species**

1. These are species which are in danger of extinction.
2. The survival of such species is difficult if the negative factors that have led to decline in their population continue to operate.
3. Black buck, crocodile, Indian wild ass, lion tailed macaque etc., are examples of endangered species.

**Extinct species**

1. These are species which are not found after searches of known or likely areas where they may occur.
2. A species may be extinct from a local area, region, country, continent or the entire earth.
3. Asiatic cheetah, pink head duck are examples of extinct species.

**22 What has been the contribution of the Indian Wildlife Protection Act in protecting habitats in India? Explain.**

**Answer:** (i) An all-India list of protected species was published. The thrust of the programme was towards protecting the remaining population of certain endangered species by banning hunting, giving legal protection to their habitats, and restricting trade in wildlife.

(ii) The central government also announced several projects for protecting specific animals, which were greatly threatened, including the tiger, the one-horned rhinoceros, the Kashmir stag or hangul, three types of crocodiles—fresh water crocodile, saltwater crocodile and the Gharial, the Asiatic lion, and others.

(iii) Many national parks, wildlife sanctuaries and bioreserves were established to protect and conserve the wildlife.

### **23. How does biological loss of forest and wildlife correlate with loss of cultural diversity?**

**Answer:** (i) Biological loss of forest and wildlife has increasingly marginalised and impoverished many indigenous and other forest dependent communities, who directly depend on various components of the forest and wildlife for food, drink, medicine, culture, spirituality, etc.

(ii) The indirect impact of degradation such as severe drought or deforestation-induced floods, etc., also hits the poor the hardest. Poverty in these cases is a direct outcome of environmental destruction.

(iii) Due to biological loss of forest and wildlife many tribal communities have disappeared.

### **24. “Nature-worship is an old age belief”. Explain how has it helped in the conservation of forests and wildlife.**

**Answer:** (i) Nature-worship is an age old tribal belief based on the premise that all creations of nature have to be protected. Such beliefs have preserved several virgin forests in pristine form called Sacred Groves (the forests of God and Goddesses). These patches of forest or parts, of large forests have been left untouched by the local people and any interference with them is banned.

(ii) The Mundas and the Santhal of Chota Nagpur region worship mahua (*Bassia latifolia*) and kadamba (*Anthocaphalus cadamba*) trees, and the tribals of Odisha and Bihar worship the tamarind (*Tamarindus indica*) and mango (*Mangifera indica*) trees during weddings.

(iii) Peepal and banyan trees are also considered sacred and worshipped in most parts of India.

(iv) Sacred qualities are often ascribed to springs, mountain peaks, plants and animals which are closely protected.

(v) In and around Bishnoi villages in Rajasthan, herds of blackbuck, (chinkara), nilgai and peacocks can be seen as an integral part of the community and nobody harms them.

## **25. What is Himalayan Yew? Why is it under great threat at present?**

**Answer:** The Himalayan Yew is a medicinal plant which is found in various parts of Himachal Pradesh and Arunachal Pradesh.

(i) It is under great threat due to over-exploitation.

(ii) A chemical compound called 'taxol' is extracted from the bark, needles, twigs and roots of this tree.

(iii) So, it is now biggest selling anti-cancer drug in the world.

## **Long Answer Type Questions**

### **1. "Conservation of rapid decline in wildlife population and forestry has become essential." Explain.**

**Answer:** (i) Loss of cultural diversity : The loss of forest and wildlife is not just a biological issue but it is also correlated with cultural diversity. There are many forests-dependent communities, which directly depend on various components of the forests and wildlife for food, drinks, medicines, etc. Many of tribal communities like Muria Gonds, Dhurwas, Bhatras, etc. have lost their habitat because of the destruction of forests.

(ii) Complex web of living organisms : We humans along with all living organisms form a complex web ecological system in which we are only a part and very much dependent on this system for our own existence. For example, the plants, animals and micro-organisms recreate the quality of the air we breathe, the water we drink and the soil that produce our food without which we cannot survive.

(iii) Large scale destruction of forests : Between 1951 and 1980, according to the Forest Survey of India, over 26,200 sq km of forest areas were converted into agricultural lands all over India.

## **2. Describe the different types of plant and animal species found in India.**

**Answer:** (i) Normal species : These include those whose population levels are considered to be normal for their survival, such as cattle, sal, pine, rodents etc.

(ii) Endangered species : These include those species which are in danger of extinction. The survival of such species is difficult if the negative factors that have led to a decline in their population continue to operate. For example, black buck, crocodile, Indian wild ass, etc.

(iii) Vulnerable species : These include the species whose population has declined to levels from where it is likely to move into the endangered category in the near future if the negative factors continue to operate. For example, blue sheep, gangetic dolphin etc.

(iv) Rare species : They may move into the endangered or vulnerable category for example, blue bear, wild Asiatic buffalo.

(v) Endemic species : These are found in some particular areas usually isolated by natural or geographical barriers. For example, Andaman teal, Nicobar prige.

## **3. What steps have been taken by the government for the conservation of forest and wildlife in India? Explain.**

**Answer:** (i) National parks, biosphere and wildlife sanctuaries : To protect the biodiversity, the Indian government has established 100 national parks, 515 sanctuaries and 17 biosphere reserves.

(ii) The Indian Wildlife Protection Act :

The Indian Wildlife Protection Act was implemented in 1972, with various provisions for protecting habitats. An all India list of protected species was also published. The thrust of the programme was towards protecting the remaining population of certain endangered species by banning hunting, giving legal protection to their habitats and restricting trade in wildlife.

(iii) Projects for protecting specific animals : The central government has also announced several projects for protecting specific animals which were greatly threatened, including the tiger, the one-horned rhinoceros, the Kashmir stag or hangul, the three types of crocodiles – the freshwater crocodile, the saltwater crocodile and the Gharial, the Asiatic lion and others.

(iv) Forest Policy : India is one of the few countries which has a forest policy since 1894. It was revised in 1952 and again in 1988. The main plank of the forest policy is protection, conservation and development of forests.

(v) Forest Research Institutes : Indian government has created many forest Research Institutes for the research, protection and development of the forests. IFS Dehradun is the oldest research institution of the country.

#### **4. Distinguish between Reserved forests, Protected forests and Unclassed forests.**

**Or**

**Classify the forests into three categories.**

**Answer:**

Reserved Forests	Protected Forests	Unclassed Forests
These are permanently earmarked either for production or other forest produce.	These are protected from any further depletion.	These consist of inaccessible forests or wastelands.

More than 50% of the total forest land of India has been declared as reserved forests.	Almost 1/3rd of the total forest area of India is called as the protected forest.	These consist of only 16% of the total forest areas of India.
These are controlled by the government.	These are controlled by the government.	These are owned by government and private individuals.
The forests of J & K, Andhra Pradesh, Uttarakhand, Kerala, Tamil Nadu, West Bengal and Maharashtra fall in this category.	The forests of Bihar, Haryana, Punjab, Himachal Pradesh, Odisha and Rajasthan fall under this category.	The forests of north-eastern states and parts of Gujarat fall under this category.

**5. "Conservation projects have changed their focus in the recent years." Explain.**

**Or**

**In what ways the conservation project has changed in the recent years?**

**Answer:** The conservation projects are now focusing on biodiversity rather than on a few of its components. There is now a more intensive search for different conservation measures. Increasingly, even insects are beginning to find a place in conservation planning. In the notification under Wildlife Act of 1980 and 1986, several hundred butterflies, moths, beetles and one dragonfly have been added to the list of protected species. In 1991, for the first time plants were also added to the list, starting with six species. The clear lesson from the dynamics of both environmental destruction and reconstruction in India is that local communities everywhere have to be involved in some kind of natural resource management.

**6. "Maintenance of ecological system is of utmost importance." How can you contribute to conserve it and what values are developed through this activity?**

**Answer:** (i) We humans along with all living organisms form a complex web of ecological system in which we are only a part and very much dependent on this system for our own existence. For example, the plants, animals and micro-organisms re-create the quality of the air we breathe, the water we drink and

the soil that produces our food without which we cannot survive. Forests play a key role in the ecological system as these are also the primary producers on which all other living beings depend.

(ii) We should save our environment by switching to green technology and by contributing less to the emission of carbon dioxide.

(iii) We should plant more and more trees, say no to plastic bags, travel by public transport, etc.

(iv) It will improve the quality of our lives as well as our children and will save our money to switch to alternate sources for power.

## **HOTS Questions and Answers**

### **1. How has the IUCN classified the existing animals?**

**Answer:** 1. Normal Species 2. Endangered Species 3. Vulnerable Species 4. Rare Species 5. Endemic Species 6. Extinct Species

### **2. Classify the following animals according to the IUCN. Asiatic Cheetah, Nicobar Pigeon, Asiatic Elephant, Blue Sheep, Indian Rhino.**

**Answer:** (i) Endangered – Indian Rhino  
(ii) Vulnerable – Asiatic Elephant, Blue Sheep  
(iii) Endemic – Nicobar Pigeon  
(iv) Extinct – Asiatic Cheetah

### **3. What is 'Project Tiger'? When was it launched? Mention any four tiger reserves of India.**

**Or**

**Write a brief note on 'Project Tiger'.**

**Answer:** Project Tiger was a wildlife conservation project initiated in India in 1973 to protect the Bengal Tiger. There are more than 42 tiger reserves in India covering an area of about 37,761 s km.

Four Tiger Reserves in India are :



- (i) The Corbett National Park – Uttarakhand
- (ii) The Sunderban National Park – West Bengal
- (iii) The Manas Tiger Reserve – Assam (iv) The Periyar Tiger Reserve – Kerala

**4. The greatest damage inflicted on Indian forests was due to the extension of agriculture. Explain. Suggest any two ways to increase area under forests.**

**Answer:** (i) The expansion of agriculture started during the colonial period.  
(ii) Between 1951 and 1980, according to the Forest Survey of India, over 26,200 sq km of forest areas were converted into agricultural lands all over India.  
(iii) Substantial parts of the tribal belts, especially in the north-eastern and central India, have been deforested or degraded by Shifting Cultivation (jhum), a type of 'slash and burn' agricultural method.

Suggestions :

- (i) Planting more trees
- (ii) Celebrating Van Mahotsav at community and school level.

**5. Give three reasons why we need to save the biodiversity of our planet. How can you contribute in the given cause?**

**Or**

**Explain the importance of biodiversity for human beings.**

**Answer:** (i) We humans along with all living organisms form a complex web of ecological system in which we are only a part and very much dependent on this system for our own existence. For example, the plants, animals and micro-organisms recreate the quality of the air we breathe, the water we drink and the soil that produces our food without which we cannot survive.  
(ii) The destruction of forests and wildlife is not just a biological issue. The biological loss is strongly correlated with the loss of cultural diversity.  
(iii) It also preserves the genetic diversity of plants and animals for better growth of species and breeding.

Our contribution :

- (i) Minimising wastage of resources.
- (ii) Use Jute bags.
- (iii) Planting more trees.

**6. Mention any four major threats to the population of tiger? Explain the efforts made by the government to protect them.**

**Answer:** (i) Poaching for trade

(ii) Shrinking habitat

(iii) Depletion of prey base species

(iv) Growing human population

(v) The trade of tiger skins and the use of their bones in transitional medicines, especially in the Asian countries left the tiger population on the verge of extinction.

Efforts made by the government to protect them are as under :

(i) Project Tiger, one of the well-publicised wildlife campaigns in the world, was launched in 1973.

(ii) There are 42 tiger reserves in India covering an area of 37,761 sq km.

(iii) Tiger conservation had been viewed not only as an effort to save an endangered species, but with equal importance as a means of preserving bio types of sizeable magnitude.

(iv) Some of the tiger reserves of India are Corbett National Park in Uttarakhand, Sunderbans National Park in West Bengal etc.

**7. Explain the social impacts of loss of forests.**

**Or**

**“Forest and wildlife are vital to the quality of life and environment in the subcontinent.” Explain.**

**Answer:** (i) Loss of cultural diversity : The loss of forest and wildlife is not just a biological issue but it is also correlated with cultural diversity. There are many forests-dependent communities, which directly depend on various components of the forests and wildlife for food, drinks, medicines, etc. Many

of tribal communities like Muria Gonds, Dhurwas, Bhatras, etc., have lost their habitat because of the destruction of forests.

(ii) Impact on women : Even among the poor, women are affected more than men. In many societies, women bear the major responsibility of collection of fuel, fodder, water and other basic needs. As these resources are depleted, the drudgery of women increases. Most of the time they have to walk for more than 10 km to collect the basic necessities. This causes serious health problems for women in the negligence of home and children because of the increased hours of work, which often has serious social implications.

(iii) Poverty : Deforestation is also responsible for poverty. It is considered as a direct outcome of environmental destruction. Most of the poor people or tribal people depend on forests for their basic needs. Now if the forests are destroyed, these poor people will be deprived of the basic necessities.

### **8. Describe how communities have conserved and protected forests and wildlife in India. What moral lessons you have learnt from this?**

**Answer:** (i) In Sariska Tiger Reserve : Rajasthanis villagers have fought against mining by citing the Wildlife Protection Act. In many areas, villagers themselves are protecting habitats and explicitly rejecting government involvement.

(ii) The inhabitants of five villages in the Alwar district of Rajasthan have declared about 1,200 hectares of forest area as the 'Bhairodev Dakav Sonchuri'. The community has declared their own set of rules and regulations which do not allow hunting and are protecting the wildlife against any outside encroachments.

(iii) Many states have launched the Joint Forest Management programme to involve local communities in the management and restoration of degraded forests. Odisha was the first state to launch this programme.

(iv) Improper farming techniques, defective methods of farming are also responsible for depletion of our biodiversity. So many farmers and citizen groups support the Bee) Bachao Andolan in Tehri and Navdanya have developed or are using various crop production methods which do not use synthetic chemicals for growing crops.

(v) The famous Chipko Movement was launched by the women of Chamoli in northern India, saved more than 12,000 s km. area of forests just by hugging the trees when the lumberjacks attempted to cut them.

### **Moral lessons :**

- Conservation strategies can be successful only with the participation of local people.
- The clear lesson from the dynamics of both environmental destruction and reconstruction in India is that local communities everywhere have to be involved in some kind of natural resource management. But there is still a long way to go before local communities are at the centre-stage in decision making. Accept only those economic or developmental activities, that are people centric, environment-friendly and economically rewarding.

### **9. Which values do the wildlife sanctuaries of any country promote?**

**Answer:** (i) Wildlife sanctuaries have been formed to conserve and maintain the diversity and integrity of natural heritage.  
(ii) They help to preserve natural ecosystem.  
(iii) They teach us the value of sharing because we humans along with all living organisms form a complex web of ecological system in which we are only a part and very much dependent on this system for our own existence.

### **10. List any three examples of environmental degradation that you may have observed around you.**

**Answer:** (i) Polluted air and water : Industries and vehicles release harmful gases and chemicals which are responsible for degradation of water and air.

(ii) Land degradation : Overuse of fertilisers and chemicals have resulted in land degradation.

(iii) Loss of biodiversity: Habitat destruction, hunting, poaching has led to the decline in biodiversity.