

Grade X - Geography

Lesson 2. Forest and Wildlife Resources

| Objective Type Questions | (1 Mark each) | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| I. Multiple choice questions | | | | | | | | | |
| 1. The species which are in danger of extinction are called: | | | | | | | | | |
| a. Vulnerable species | b. Rare species | | | | | | | | |
| c. Endangered species | d. Normal species | | | | | | | | |
| 2. Madhuca Insignis (a wild variety of Mahua) is a | | | | | | | | | |
| a. Plant | b. Tree | | | | | | | | |
| c. Insect | d. Birds | | | | | | | | |
| 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 | | | | | | | | |
| 4. Substantial parts of the tribal belts espe | ecially in north-eastern India, have been | | | | | | | | |
| deforested by: | | | | | | | | | |
| a. Shifting cultivation | b. Mining | | | | | | | | |
| c. Infrastructure development | d. Both A & C | | | | | | | | |
| 5. The forest cover in our country has rece | ntly increased due to: | | | | | | | | |
| a. Increase in natural forest gr <mark>ow</mark> th | b. I <mark>nc</mark> rease in net sown area | | | | | | | | |
| c. Plantation by different age <mark>nc</mark> ies | d. N <mark>one</mark> of the above | | | | | | | | |
| 6. Substantial parts of the tribal belts in no | orth-eastern <mark>I</mark> ndia, have been deforested by: | | | | | | | | |
| a. Shifting cultivation | b. Mining | | | | | | | | |
| c. Infrastructure development | d. None of the above | | | | | | | | |

- 1. Sacred Groves are:
 - a. parts of large forests that have been left untouched by the local people.

II. Multiple choice questions

b. places for grazing animals.



| | c. forests earmarked for commercial felling of trees. | | | | | | | | | | | |
|--|---|-----------------------------------|---------------------|---------------------------|-------------------------------|--|--|--|--|--|--|--|
| | d. forests used for planting trees with medicinal properties. | | | | | | | | | | | |
| 2. A | for | est is land that is a | a reserv | ed forest, | and over which the government | | | | | | | |
| has p | property rights. | | | | | | | | | | | |
| | a. Reserved | b. Protected | c. Ur | nclassed | d. None of the above | | | | | | | |
| 3. W | hich of the followir | ng animals were gra | vely thr | eatened, a | nd the Central Government | | | | | | | |
| annou | unced several projec | cts for protecting t | hem? | | | | | | | | | |
| | a. Kashmir stag | | b. The Asiatic lion | | | | | | | | | |
| | c. One-horned rhir | noceros | d. All of the above | | | | | | | | | |
| 4. forests, constituting 75 per cent of its total forest area. | | | | | | | | | | | | |
| | a. Orissa | b. Madhya Prades | h c. Ch | hattisgarh | d. Assam | | | | | | | |
| 5. Re | eserved and protect | ed forests are also | referr | ed to as: | | | | | | | | |
| | a. Unclassed fores | t | | b. Permo | nent forest estate | | | | | | | |
| | c. Open forest | | d. Mangro | rove forest | | | | | | | | |
| 6. W | hich of the followin | g conservation stra | tegies d | o not direc | tly involve community | | | | | | | |
| parti | cipation? | | | | | | | | | | | |
| | a. Joint Forest Mo | inagement | | | | | | | | | | |
| | b. Beej Bachao An | dolan | | | | | | | | | | |
| | c. Chipko Movemer | nt | | | | | | | | | | |
| | d. Demarcation o | f Wildlife Sanctuar | ies | | | | | | | | | |
| 7. TI | ne state having high | nest percentage of | protecto | ed forests | is | | | | | | | |
| Ans. | Punjab | | | | | | | | | | | |
| 8 | is the | e name given to the | forest | s of God an | d Goddesses. | | | | | | | |
| Ans. | Sacred Groves | | | | | | | | | | | |
| 9. 'C | hipko movement' is | a programme <mark>s</mark> tarte | ed towar | ds co <mark>ns</mark> erv | ation of | | | | | | | |
| Ans. | Forests | | | | | | | | | | | |
| 10. 0 | Corbett National Pa | rk is located <mark>in Utt</mark> | ar Prad | esh. (True/ | False) | | | | | | | |
| Ans. | | | | 4 | \sim 0 0 | | | | | | | |
| 11. E | Beej Bachao Andola | n is farmers' moven | nent init | iated in Te | hri. (True/False | | | | | | | |
| Ans. | True | | | | 0,000 | | | | | | | |
| 12. 1 | Name two plants wh | ich belong to the c | ritical c | ategory. | | | | | | | | |
| Ans. | a) Madhuca insignis, | b) Hubbardia hep | taneuror | 1 | | | | | | | | |



13. Why was Indian Wildlife (Protection) Act implemented?

Ans. Indian Wildlife (Protection) Act 1972 was implemented mainly to protect habitats.

14. Name two animals which have been given full or partial protection against hunting and trade throughout India.

Ans. The animals are blackbuck (chinakara), great Indian bustard (godawan), Indian elephant and Indian lion.

15. Which state has the largest area under permanent forests?

Ans. Madhya Pradesh with 75%

16. To which category do the forests in north-eastern states belong?

Ans. The forests in north-eastern states belong to the unclassed category. These are managed by local communities.

17. Which state of India passed the first resolution for Joint Forest Management?

Ans. Odisha

18. In which area is the Beej Bachao Andolan famous in India?

Ans. Tehri reigion

19. Mention the tree which is worshipped by the Mundas of Chhota Nagpur region.

Ans. The Mundas of Chhota Nagpur region worship Mahua tree.

20. What was the aim of the Chipko Movement?

Ans. The aim of the Chopko movement in the Himlayas was to resist deforestation.

I. Assertion & Reason

Directions: In the following questions, a statement of Assertion (A) is followed by a statement of Reason (R). Mark the correct choice as:

- (A) Both A and R are true and R is the correct explanation of A.
- (B) Both A and R are true, but R is NOT the correct explanation of A.
- (C) A is true, but R is false.
- (D) A is false and R is true.
- 1. Assertion (A) : Forests plays a key role in the ecological system.

Reason (R): Forests are the primary producers on which all other living beings depend.

2. Assertion (A) : India is one of the world's richest countries in terms of its vast array of biological diversity.



Reason (R) : The Himalayas which form the northern shield is rich in flora and

fauna, while on the other hand in the Western Ghats biodiversity is

present at its full bloom.

Ans: Option (A) is correct.

3. Assertion (A) : Since 1951, over 5,000 sq km of forest was cleared for river valley

projects.

Reason (R): Large-scale development projects have contributed significantly to the

loss of forest.

Ans: Option (A) is correct.

In the given questions (Q.3), there are two statements marked as Assertion (A) and Reason (R). Read the statements and choose the correct option from the following:

(A) Both A and R are true and R is the correct explanation of A.

(B) Both A and R are true, but R is NOT the correct explanation of A.

(C) A is true, but R is false.

(D) A is false and R is true.

4. Assertion (A) : The destruction of forests and wildlife is not just a biological issue.

Reason (R) : It has also increasingly marginalised and improverished many indigenous and

forest dependent communities.

Ans: Option (A) is correct.

II. Assertion & Reason

Directions: In the following question, A statement of Assertion (A) is followed by a statement of Reason (R). Mark the correct choice a

(A) Both A and R are true and R is the correct explanation of A.

(B) Both A and R are true but R is NOT the correct explanation of A.

(C) A is true but R is false

(D) A is false and R is True.

1. Assertion (A) : Depletion of forests causes a lot of danger.

Reason (R) : Forests are vital for the quality of life and environment.

Ans. Option (A) is correct



2. Assertion (A) : Tiger population is on the verge of extinction.

Reason (R) : Tiger population in forests is increasing rapidly day by day.

3. Assertion (A) : Destruction of forests and wildlife resulted into the loss of cultural

diversity.

Reason (R) : The conservation of forests and wildlife is essential to provide a better

quality of life.

Ans. Option (B) is correct

4. Assertion (A) : The tree is a peculiar organism of unlimited kindness.

Reason (R) : Trees are living organisms which makes no demands for its sustenance,

and extends generously the products of its life activity.

Ans. Option (A) is correct

5. Assertion (A) : To many of us, peepal and banyan trees are considered sacred.

Reason (R) : Indian society comprises several cultures, each with its own set of

Traditional methods of conserving nature and its creations.

Ans. Option (A) is correct

I. Very Short Answer Type Questions.

(1 mark each)

1. Name a few trees that are considered sacred in India?

Ans. Peepal, Banyan and Mango.

2. What was the aim of Chipko Movement?

Ans. Forest conservation.

- 3. Name the state in which Corbett National Park is located.
- 4. Sundarban National Park is located in which state?

Ans. West Bengal

5. When was Project Tiger launched?

Ans. In 1973.

6. Which community in India is famous for protecting the black buck?

Ans. Bishnois.



II. Very Short Answer Type Questions.

(1 mark each)

1. In India, much of its forest and wildlife resources are either owned or managed by the government through the Forest Department or other government departments. Name the categories classified under it.

Ans. Reserves forests, Protected forests and Unclassed forests.

2. Which state has the largest area under permanent forests?

Ans. Madhya Pradesh

3. What are unclassed forests?

Ans. These are the forests and wastelands belonging to both government and private individuals and communities.

4. Name the states that have largest percentages of reserved forests of its total forest area.

Ans. Jammu and Kashmir, Andhra Pradesh, Uttarakhand, Kerala, Tamil Nadu, West Bengal, and Maharashtra

5. What percent of Madhya Pradesh's total forest area is under permanent forest?

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

I. Short Answer Type Questions.

(3 marks each)

1. What is biodiversity? Why is biodiversity important for human lives?

Ans. Biodiversity is made up of various types of life forms found on earth. It is a measure of variation at the ecosystem, species and genetic level. Biodiversity is abundant in Tropical areas. Tropical areas cover 10 per cent of the earth surface, but they host 90% of the world species.

Contribution of biodiversity in human lives

- i. Agriculture Variety of plant species meet our needs for food.
- ii. Their contribution to business and industry.
- iii. Leisurely activities.
- iv. Ecological services.



2. What efforts or steps were taken by the government to protect forests and wildlife of the country?

OR

Write a note on good practices towards conserving forest and wildlife.

OR

Explain any three measures taken by the Indian government to protect wildlife.

Ans. Measures taken by the Indian government to protect wildlife are:

- a. The Indian Wildlife Protection Act was implemented in 1972 with various provisions for protecting habitats.
- b. An all-India list of protected species was also published.
- c. To protect the remaining population of certain endangered species government has banned hunting, given legal protection of the habitats of those species and restricted trade in wildlife.
- d. Central and many State Governments have established national parks and wildlife sanctuaries.
- 3. Why do we need to conserve our forests and wildlife? Explain any two steps taken by the government to protect forests and wildlife resources.
- Ans. (a) We need to conserve our forests and wildlife because:
 - i. Conservation preserves the ecological diversity and our life support system air,
 water and soil.
 - ii. Conservation also preserves the genetic diversity of plants and animals for better growth of species and breeding.
 - iii. It makes the planet Earth safe. (Any one)
 - (b) Steps taken by the government to protect forests and wildlife resources:
 - i. The Indian Wildlife Protection Act was implemented in 1972 with various provisions for protecting habitats.
 - ii. Central and many State Governments have established national parks and wildlife sanctuaries.
- "Forests play a key role in the ecological system." Highlight the values of forest in our life.

OR

Explain three reasons why we need to save the biodiversity of our planet?



Ans. We need to save the biodiversity of our planet because:

- a. Human beings along with all living organisms form a complex web of ecological system in which they are only a part and are very much dependent on this system for their existence.
- b. 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.
- c. Forests play a key role in the ecological system as these are also the primary producers on which all other living beings depend.
- 5. Humans are dependent on the ecological system for their existence. Explain.

Ans. As part of the ecological system human beings are dependent on it for their existence. For example:

- a) We breathe in air, drink water and grow crops in soil. These are the non-living components of the ecological system.
- b) On the other hand, plants, animals and other micro-organisms recreate the quality of these non-living components.
- 6. Explain any three adverse effects of the destruction of forests and wildlife.

Ans. Three adverse effects of the destruction of forests and wildlife.

- a) Destruction of forests and wildlife leads to disturbances in ecological balance of the environment.
- b) It also affects the cultural loss of communities and their displacement.
- c) It also disturbs food chain, ecosystem and development of the society.
- 7. Write any three effective practices towards conserving forests and wildlife.

Ans. The following can be the three effective practices towards conserving forests and wildlife.

- a) Setting up of national parks and wildlife sanctuaries by the central and state governments.

 These special regions can be declared legally the homes of wild animals. In those areas no hunting or cutting of forest can take place.
- b) By launching specific projects like Project Tiger important species whose life is in danger can be protected.
- c) Bringing together communities with government projects is the most effective way to conserve forest and wildlife. Chipko movement, Beej Bachao movement and Bishnoi's love for blackbuck are some examples.



8. Distinguish between reserved and protected forests.

Ans. Difference between reserved forests and protected forests.

| Reserved Forests | Protected Forest | | | | | | |
|---|---|--|--|--|--|--|--|
| a) The reserved forests are regarded as the | a) The forests lands are protected from any | | | | | | |
| most valuable | further depletion. | | | | | | |
| b) More than half of the total forests have | b) Almost one-third of the total forest has | | | | | | |
| been declared reserved forests. | been declared protected forest. | | | | | | |
| c) These forests are found in Jammu and | c) These forests are found in Bihar, Haryana, | | | | | | |
| Kashmir, Andhra Pradesh, Uttarakhand, Kerala, | Punjab, Himachal Pradesh, Rajasthan and | | | | | | |
| Tamil Nadu, West Bengal and Maharashtra. | Odisha. | | | | | | |

9. How has the destruction of forests and wildlife resulted into the loss of cultural diversity? Explain.

Ans. The destruction of forests and wildlife has resulted into the loss of cultural diversity in the following ways.

- a) Destruction of forests and wildlife has affected the livelihood of many communities, who are dependent on forests.
- b) In some areas, women are involveed in collection of fuel, fodder for their animals and water for their domestic needs, Due to deforestation these products are not available to them and this adversely affects their lives.
- c) Destruction of forests has resulted in severe droughts and floods, which has affected these communities. People live in extreme poverty. Conservation of forests and wildlife is essential to provide a better quality of life.

10. Large-scale development projects and mining have contributed significantly to the loss of forest. Give reasons to support this statement.

Ans. Large-scale development projects and mining have contributed significantly to the loss of forests. Since 1951, over 5000 sq.km. of forests have been cleared for river valley projects.

Clearing of forest is still continuing with projects like the Narmada Sagar Project in Madhya Pradesh, which would inundate 40,000 hectares of forest. Mining for the purpose of industrial development is another major factor behind deforestation. The Buzar Tiger Reserve in West Bengal is seriously threatened by the ongoing dolomite mining. It has disturbed the natural habitat



of many species and blocked the migration route of several others, including the great Indian elephant.

11. What are permanent forest estates? Why are they maintained? Name the state which has the largest area under these forest estates.

Ans. Reserved and protected forests are also referred to as Permanent forest estates. These forest estates are maintained for the purpose of producing timber and other forest produce and for protective reasons.

Madhya Pradesh has the largest area under these forests (75 percent of its total forest area).

12. In which year was the 'Indian Wildlife Protection Act' implemented in India? Describe the main thrust area of this programme.

OR

When was the Indian Wildlife Protection Act implemented? Describe its main objectives.

Ans. The Indian Wildlife (Protection) Act was implemented in 1972 for protecting habitats. A list of protected animals was published. Its main objectives are:

- a) To protect the certain endangered species by banning hunting, giving legal protection to their habitats and stopping trade in wildlife.
- b) The central and state governments established national parks and wildlife sanctuaries to conserve and protect flora and fauna.
- c) The central government also announced various projects for protecting specific animals, which were threatened, like Project Tiger and Project Rhino.

II. Short Answer Type Questions.

(3 marks each)

- 1. Describe how communities have conserved and protected forests and wildlife in India.

 Ans. Communities have conserved and protected forests and wildlife in India:
 - i. The Chipko Movement, conducted in the Himalayas, has successfully resisted deforestation in several areas. It showed community afforestation with indigenous species conservation to be successful.
 - ii. The Beej Bachao Andolan in Tehri district of Uttarakhand conserved local seed diversity and forests. It defended small farmers along with promoting traditional agriculture and knowledge systems.
 - iii. In the Sariska wildlife sanctuary in Rajasthan, villagers have fought against mining activities taking place nearby by citing the wildlife Protection Act.



2. Write a note on good practices towards conserving forest and wildlife.

Ans. Measures taken by the Indian government to protect wildlife are:

Conservation of forest and wildlife was prevalent as nature worship is common among tribal communities and in villages. In many cultures, tulsi plants and banana leaves are worshipped and considered sacred. Such cultural beliefs helped preserve the plant and animal species.

Large-scale people's movement like the Chipko Movement in Uttarakhand and the Narmada Bachao Andolan in Madhya Pradesh indicate involvement of local communities in conserving forests and wildlife.

Thus, it is necessary that all conservation practices and programmes are eco-friendly, people friendly and economically acceptable. Developmental projects undertaken by the government should not be at the cost of destruction of forests and loss of people's livelihoods.

3. Write the important features of Joint Forests Management (JFM) Programme.

OR

Describe any three features of Joint Forest Management.

Ans. Joint Forest Management (JFM) programmes have been launched by various State Governments. The first state to start this programme was Odisha in 1988.

The important features of JFM:

- i. In India, Joint Forest Management (JFM) programme has been proved an excellent example for involving local communities in the management and restoration of degraded forests.
- ii. The major purpose of the JFM was not only to protect the forests from encroachments, grazing, theft and fire but also to improve the forest in accordance with an approved Joint Forest Management Plan.
- iii. The Programme mainly depends on the formation of local (village) institutions that undertake protection activities mostly on degraded forest land managed by the forest department.
- 4. What is Joint Forest Management Programme? Which was the first state to adopt this programme?
- Ans. (i) A programme which involves local communities in the management and restoration of degraded forests. It involves local communities and land managed by forest department.
- (ii) This programme was first passed in 1988 by the state of Odisha



5. Analyse the involvement of different traditional communities to conserve their own natural habitats in india.

OR

Describe how communities have conserved and protected forests and wildlife in India.

Ans.

- (i) People of Sariska Tiger Reserve are fighting against mining.
- (ii) The villages of five districts of Alwar declared 1200 hectares of forest as the "Bhairodev Dakav Sonchuri".
- (iii) People involved in "Chipko Movement" resisted deforestation.
- (iv) The Mundas and Santhals of Chhota Nagpur forest region worship trees like mahua and kadamba.
- (v) People working some trades involved in Joint Forest Management.

I. Long Answer Type Questions.

(5 marks each)

1. "The 33 per cent of area should be under forest." Justify the statement highlighting the advantages of forests.

Ans. The 33 per cent of area should be under forests because of the following reasons:

- (i) They reduce flooding and improve water quality by slowing the rate at which rainfall runoff and flows into rivers.
- (ii) They provide fallen leaves to feed the soil and aquatic organisms.
- (iii) They play an important soil erosion by holding the soil firmly to the ground.
- (iv) Forests increase the level of groundwater by showing the amount of rainfall runoff that percolates into the soil and replenishes our main source of drinking water..
- (v) Forests improve air quality, especially in summer, by lowering temperatures and filtering dust. These also absorb various gases like ozone, carbon, monoxide, sulphur dioxide, nitrogen oxides, airborne ammonia and heavy metals and release oxygen.
- 2. "The conservation projects are now focusing on biodiversity rather than on a few of its components." Justify with proper examples.

Ans. The conservation projects are now focusing on biodiversity rather than on a few of its components.



Following examples proves the above given statement:

- (i) In the 1960s and 1970s conservation approach was specific. On the basis of Wildlife Protection Act, 1972, various projects were implemented.
- (ii) These projects were implemented to protect various species of animals including tigers, rhinoceros, crocodile, etc.
- (iii) But now conservation projects are focussing on biodiversity *i.e.* whole gamut of species along with their habitat in a specific climatic region and not just on few components Also the conservation measure are now intensified
- (iv) Wildlife Act was revised in 1980s and 1986 to include various insects like butterflies and plants in the conservation planning.
- (v) Along with national parks, wildlife sanctuary, biosphere reserves are now designed and promoted in order to protect species along with natural habitat and whole complex of ecological webs.
- (vi) Participation of community as well as local people now gave a new dimension to conservation of planning.
- 3. Why do we need to conserve our forest and wildlife? Explain any two steps taken up by the government to protect forest and wildlife resources.

Ans. We need to conserve our forest and wildlife resources because:

- a) Conservation preserves the ecological diversity and our life support system like land, water, air and soil.
- b) It preserve the genetic diversity of plants and animals for better growth of species and breeding. For example, in agriculture we still depend on traditional varieties of crops.
- c) Fisheries depend on the maintenance of aquatic biodiversity.

To protect wildlife the government has taken the following steps:

- a) The Indian Wildlife Protection Act was implemented in 1972 for protecting habitats. An all-India list of protected species was also published. The main aim of the programme was to protect the remaining population of certain endangered species by banning hunting.

 Subsequently, central and many state governments established national parks and wildlife sanctuaries and central government announced several projects for protecting specific animals like tigers and rhino.
- b) Cutting and felling of trees is strictly prohibited. National parks and wildlife sancutuaries which were established to protect wildlife also protect forest.



4. Classify forests of India, give two characteristics of any two types of forests.

Ans. In India, Most of the forests and wildlife resources are owned and managed by the government through the Forest Department or other government departments. The forests are classified into three categories:

- a) Reserved forests
- b) Protected forests and
- c) Unclassed forets
 - A. Reserved forests: Three forests are the most valuable for their timber and other forest products. More than half of the total forest land in India falls under this category. Reserved and protected forest are also called permanent foreste states. Madhya Pradesh has the largest area under permanent forests with 75 per cent of its total forest area. The other states like Jammu and Kashmir, Andhra Pradehs, Uttarakhand, Tamil Nadu, Kerala, West Bengal and Maharashtra have large percentage of reserved forests.
 - B. Protected Forests: These forests are protected from any further depletion. Almost one-third of the total forest area in India are protected forests. States like Bihar, Haryana, Punjab, Himachal Pradesh, Odisha and Rajasthan have large areas of protected forests.
 - C. These are the forests and wastelands belonging to both government and private individuals and communities. All the north -eastern states and parts of Gujarat have large percentage of unclassed forests which are managed by local communities.
- 5. What are 'Sacred groves'? Give examples of some species of flora which are worshipped by the tribals. How has the 'sacredness' ascribed to plants and animals helped in protecting them?

Ans. Nature worship is an age-old tribal belief based in the premise that all creations of nature, i.e., plants, animals, all living things and the surrounding abiotic environment, are sacred and hould be protected. On account of nature worship several virgin forests have been preserved in their pristine form and are called 'Sacred Groves' or Forests of Gods and Goddesses. These patches of forests or parts of large forests have been left untouched by local communities and any interference with them is banned. These sacred groves have a wealth of diverse and rare species. Certian tribal societies revere a particular species of flora which they have preserved from time immemorial. The Mundas and the Santhals of Chotanagpur region (Anthocaphalus cadamba) trees.



The tribals of Odisha and Bihar worship the tamarind (Tamarindus indica) and mango (Mangifera indica) trees during weddings. On account of the 'sacredness' ascribed to them, certain plants and animals have been protected. Peepal and banyan trees and tulsi plants are considered sacred by many of us. These trees themselves or their leaves are part of worship during pujas and rituals. These trees are reserved and protected. Troops of macaques and langur are found around many temples. They are fed daily and treated as part of temple devotees. In and around Bishnoi village of Rajasthan herds of blackbucks (Chinkara), nilgai and peacocks can be seen as an integral part of the community, The Bishnois consider these animals as sacred and protects them.

6. Discuss the salient features of Joint Forest Management Programme.

Ans. The following are the salient features of JFM Programme.

- a) In India, Joint Forest Management (JFM) Programme is a good example of how local communities were involved in the management and restoration of degraded forests.
- b) The programme has been in existence since 1988.
- c) The state of Odisha first passed the resolution for joint forest management.
- d) JFM depends on the formation of local institutions that undertake protection activities mostly on degraded forest land managed by the forest department.
- e) In return, the members of these communities are entitled to intermediary benefits like non-timber forest products and share in the timber harvested by successful protection.

7. Write a note on the programmes accepted for conserving forest and wildlife in India.

Ans. Conservation of forest and wildlife is necessary because it preserves the ecological diversity and preserves our life support system. For conservation of wildlife the following steps have been undertaken by the government in India:

- a) Development of national parks, wildlife sanctuaries and biosphere reserves.
- b) Implementation of Wildlife Protection Act.
- c) Protection of remaining population of endangered species by banning hunting, giving legal protection to their habitats and restricting trade in wildlife.
- d) Project Tiger, Project Rhino, and Project Elephant etc for protection of threatened species in their natural habitats.
- e) Four coral reefs have been identified for conservation and management. Many wetlands in the country are linked with river system.



Competency Based Questions

(4 Mark each)

Case based MCQs

Attempt any 4 sub-parts from each question. Each sub-part carries 1 mark.

I. Read the extract given below and answer any 5 out of 6 questions:

We share this planet with millions of other living beings, starting from micro-organisms and bacteria, lichens to banyan trees, elephants and blue whales. This entire habitat that we live in has immense biodiversity. 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. Some estimates suggest that at least 10 per cent of India's recorded wild flora and 20 per cent of its mammals are on the threatened list. Many of these would now be categorised as 'critical', that is on the verge of extinction like the cheetah, pink-headed duck, mountain quail, forest spotted owlet, and plants like madhucainsignis (a wild variety of mahua) and Hubbardiaheptaneuron, (a species of grass). In fact, no one can say how many species may have already been lost.

1. What does biodiversity include? a. Living beings b. Micro Orgnisms c. Fungi d. All of the Above 2. _____ play a key role in the ecological system as these are also the primary producers on which all other living beings depend. a. Animals b. Forests c. Bacteria d. Humans 3. What percentage of India's recorded wild flora is on threatened list? d. 20 % a. 5 % b. 10 % c. 15 %

c. 15 %

4. What per cent of India's mammals are on the threatened list?

b. 10 %

a. 5 %

d. 20 %



| 5. | Any | species | which | are | vulnerable | to | endangerment | in | the | near | future | is p | out i | n | _ |
|------|----------|---------|-------|-----|------------|----|--------------|----|-----|------|--------|------|-------|---|---|
| list | . | | | | | | | | | | | | | | |

a. Extinct

b. Uncommon

c. Threatened

d. Vulnerable

6. Hubbardia heptaneuron is a species of endangered:

a. grass

b. plant

c. animal

d. Mammal

II. Read the passage below and answer the following questions:

Many foresters and environmentalists hold the view that the greatest degrading factors behind the depletion of forest resources are grazing and fuel-wood collection. Though, there may be some substance in their argument, yet, the fact remains that substantial part of the fuel-fodder demand is met by lopping rather than by felling entire trees. The forest ecosystems are repositories of some of the country's most valuable forest products, minerals and other resources that meet the demands of the rapidly expanding industrial-urban economy. These protected areas, thus mean different things to different people, and therein lies the fertile ground for conflicts.

- 1. Which of the following factors have led to the decline in India's biodiversity.
 - a) Habitat destruction
 - b) Hunting
 - c) Forest fires
 - d) All of the above
- 2. Which of the following things do we obtain directly and indirectly from the forests and wildlife which transformed nature into a resource?
 - a) Wood, barks, leaves
 - b) Rubber, medicines, dyes
 - c) Food, Fuel, fodder, manure
 - d) All of the above
- 3. Who are increasingly marginalised and impoverished by the destruction of forests and wildlife?
 - a) Indigenous communities
 - b) Forest-dependent communities
 - c) Both (i) and (ii)
 - d) Women



- 4. Which of the following activities is not the important factor behind loss of forests?
 - a) Tribal women selling minor forest produce
 - b) River valley projets
 - c) Mining
 - d) Agricultural expansion

III. Read the passage below and answer the following questions:

Even if we want to conserve our vast forest and wildlife resources, it is rather difficult to manage, control and regulate them. In India, much of its forest and wildlife resources are either owned or managed by the government through the Forest Department or other government departments.

- 1. Which category of forests are regarded as the most valuable as far as the conservation of forest and wildlife resources are concerned?
 - a) Reserved Forests
 - b) Protected Forests
 - c) Unclassed Forests
 - d) Classed Forests
- 2. What proportion of forests are declared by the Forest Department as protected forest?
 - a) Half of the total forest area
 - b) One-third of the total forest area
 - c) One-fourth of the total forest areas
 - d) One-fifth of the total forest area
- 3. What category of forests are classified as Unclassed Forests?
 - a) Forests belonging to both government and private individuals and communities
 - b) Forests ad wastelands belonging to government
 - c) Forests and wastelands belonging to both government and private individuals and communities
 - d) Wastelands belonging to private individuals and communities.

IV. Read the passage below and answer the following questions:

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.



- a) Why do we need to conserve our forests and wildlife?
- b) What conservation steps have been taken by the government to protect Forest and Wildlife?
- c) What was the thrust of national Wildlife Protection Programme in 1960s & 1970s?

 Ans.
 - a) We need to conserve because conservation 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 e.g. in agriculture, we are still dependent on traditional crop varieties. Fisheries too are heavily dependent on the maintenance of aquatic biodiversity.
 - b) Steps taken by government for conservation:
 - i) The Indian Wildlife (Protection) Act was implemented in 1972, with various provisions for protecting habitats.
 - ii) Central and many state government established national parks and wild life sanctuaries.
 - iii) The central government also announces several projects for protecting specific animals, e.g., tiger, one-horned rhinoceros, etc.
 - c) 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.

Case based Subjective Questions

II. Read the extract given below and answer any 5 out of 6 questions:

Large-scale development projects have also contributed significantly to the loss of forests. Since 1951, over 5,000 sq km of forest was cleared for river valley projects. Clearing of forests is still continuing with projects like the Narmada Sagar Project in Madhya Pradesh, which would inundate 40,000 hectares of forest. Mining is another important factor behind deforestation. The Buxa Tiger Reserve in West Bengal is seriously threatened by the ongoing dolomite mining. It has disturbed the natural habitat of many species and blocked the migration route of several others, including the great Indian elephant. Many foresters and environmentalists hold the view that the greatest degrading factors behind the depletion of forest resources are grazing and fuel-wood



collection. Though, there may be some substance in their argument, yet, the fact remains that a substantial part of the fuel-fodder demand is met by lopping rather than by felling entire trees. The forest ecosystems are repositories of some of the country's most valuable forest products, minerals and other resources that meet the demands of the rapidly expanding industrial-urban economy.

1. What has led to the significant loss of forests?

Ans. Large-scale development projects have also contributed significantly to the loss of forests.

2. How much forest has been cleared for various river valley projects since 1951?

Ans. Since 1951, over 5,000 sq km of forest was cleared for river valley projects.

3. The Narmada Sagar Project is in which state?

Ans. Madhya Pradesh

4. Name the greatest degrading factors behind the depletion of forest resources.

Ans. Many foresters and environmentalists hold the view that the greatest degrading factors behind the depletion of forest resources are grazing and fuelwood collection.

5. Why is the Buxa Tiger Reserve in West Bengal seriously threatened by the ongoing dolomite mining?

Ans. The Buxa Tiger Reserve in West Bengal is seriously threatened by the ongoing dolomite mining. It has disturbed the natural habitat of many species and blocked the migration route of several others, including the great Indian elephant.

6. How is substantial part of the fuel-fodder demand met?

Ans. A substantial part of the fuel-fodder demand is met by lopping rather than by felling entire trees.

III. Read the extract given below and answer any five out of six questions.

Conservation in the background of rapid decline in wildlife population and forestry has become essential. Conservation 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. For example, in agriculture, we are still dependent on traditional crop varieties. Fisheries too are heavily dependent on the maintenance of aquatic biodiversity.

In the 1960s and 1970s, conservationists demanded a National Wildlife Protection

Programme. 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.

Subsequently, central and many State Governments established national parks and wildlife sanctuaries about which you have already studied. The Central government also announced several projects for protecting specific animals, which were gravely threatened, including the tiger, the one-horned rhinoceros, the Kashmir stag or hangul, three types of crocodiles - freshwater crocodile, saltwater crocodile and the Gharial, the Asiatic lion, and others. Most recently, the Indian elephant, black buck (chinkara), the great Indian bustard(godawan) and the snow leopard, etc. have been given full or partial legal protection against hunting and trade throughout India.

1. Why is biodiversity important?

Ans. Biodiversity is important because it boosts ecosystem productivity, where every species plays a part, no matter how small.

- 2. What is the aim objective of National Wildlife Protection Programme?
- Ans. The main objective of the National Wildlife Protection Programme is to protect wild plants and wild animals.
- 3. When was the National Wildlife Protection Programme implemented?

 Ans. 1972.
- 4. Name any two animals protected under the National Wildlife Protection Programme.

 Ans. Bengal Hanuman langur, Himalayan Black Bear.
- 5. Name any two animals which have been given partial or full legal protection against hunting and trade throughout India.

Ans. The Indian elephant, black buck (chinkara), the great Indian bustard(godawan) and the snow leopard, etc. have been given full or partial legal protection against hunting and trade throughout India.

Ans. Prohibition of hunting, prohibition of cutting/uprooting specified plants, prohibition of cultivation of certain plants are some of the activities that are kept under check.

