Chapter-2 Forest and Wildlife Resources

1 marks Questions

1. Name any four Normal Species.

Ans. Cattle, Sal, Pine and Rodent

2. Name any four Endangered Species

Ans. Black Buck, crocodile, Indian Ass, Indian Rhino

3. Name any four Vulnerable Species

Ans. Blue Sheep, Asiatic Elephant, Gangetic Dolphin.

4. Name any four Rare Species

Ans. Himalayan Brown Bear, Wild Asiatic Buffalo, desert Fox and Hornbill.

5. Name any four Endemic Species.

Ans. Andaman Teal, Nicobar Pigeon, Andaman Wild Pig, Mithun in Arunachal Pradesh.

6. Name any four Extinct Species.

Ans. . Asiatic Cheetah, Pink head Duck

7. When and in which state was the program of joint forest management first adopted?

Ans. In 1988, in Odisha the program of joint forest management was first adopted.

8. Which species of India's flora and fauna are on the verge of extinction?

Ans. Among the animals, the cheetah, Pink Headed Duck, Mountain Quail, Forest Spotted Owl etc. And among the plants, wild variety of Mahua (Madhuca Insignies), a wild species of grass (Hepaneuron) is on the threatened list.

9. Which state has the largest are under permanent forests?

Ans. . Madhya Pradesh

10. What is the share of India in the total number of species in the world?

Ans. 8 per cent

11. What is the approximate number of species of animals found in India?

Ans. About 81000

12. There are how many flowering plants in India?

Ans. About 15000

13. Which state have less than 10% of their area under forests?

Ans. . Delhi and Punjab

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

Ans. Madhya Pradesh

15. What is JFM?

Ans. Joint Forest Management is a Movement launched to manage and restore degraded forests by involving the local communities

16. Name any two movements which were launched by local communities for the protection of forest and wildlife.

Ans. Chipko Movement and Beej Bachao Andolan

16. Name the conservation strategies which directly involve community participation?

Ans. . Joint Forest Management, Chipko Movement

17. Which three species of India's flora and fauna are on the verge of extinction?

Ans. . Cheetah, Pink Headed Duck and Mountain Quail

18. Lepcha folk songs are associated to which state of India?

Ans. . West Bengal

19. What is enrichment plantation?

Ans. When a single commercially valuable species was extensively planted and other species eliminated

- 20. The diverse flora and fauna of the planet are under great threat mainly due to:
- (a) Global Warming (b) Lack of water availability
- (c) Insensitivity to our environment (d) Increasing pollution

Ans. (c) Insensitivity to our environment

- 21. Which one of the following is an endangered species of Manipur?
- (a) Blue Sheep (b) Asiatic Buffalo
- (c) Sangai (brow anter deer) (d) Cattle

Ans. (c) Sangai (brow anter deer)

- 22. "The species that are not found after searches of known or likely areas where they may occur" are known as:
- (a) Normal species (b) Vulnerable species
- (c) Extinct species (d) Rare species

Ans. (c) Extinct species

- 23. Which one of the following is a medicinal plant used to treat some types of cancer?

 (a) Himalayan Yew (b) Himalayan Oak
 (c) Madhuca insignis (d) Hubbardia heptaneuron

 Ans. (a) Himalayan Yew

 24. In which year, the Indian Wildlife (Protection) Act was implemented?
 (a) 1970 (b) 1971
 (c) 1972 (d) 1974

 Ans. (a) 1970

 25. Which one of the following was launched in 1973?
 (a) Project Tiger (b) Indian Wildlife Act
 (c) Wildlife Act (d) Indian Wildlife Protection Act

 Ans. (a) Project Tiger
- 26. Which one of the following is located in West Bengal?
- (a) Corbett National Park (b) Sundarbans National Park
- (c) Sariska Wildlife Sanctuary (d) Bandhangarh National Park

Ans. (b) Sundarbans National Park

- 27. In which one of the following states is Periyar Tiger Reserves Located?
- (a) Rajasthan (b) Assam
- (c) Uttranchal (d) Kerala

Ans. (d) Kerala

- 28. Which one of the following States has the largest area under permanent forest?
- (a) Uttar Pradesh (b) Jammu & Kashmir
- (c) Punjab (d) Madhya Pradesh

Ans. (d) Madhya Pradesh

- 29. Which one of the following is a great achievement of the Chipko Movement?
- (a) More trees are planted
- (b) Development in Himalayan region
- (c) Successfully resisted deforestation
- (d) Soil erosion get declined.

Ans. (c) Successfully resisted deforestation

30. In what ways the forests were harmed by the colonial government?

Ans. (1) For expansion of railways.

- (2) For expansion of agricultural field.
- (3) For expansion of commercial and scientific forestry.
- (4) For expansion of milling activities. (Any three)

31. What do your know about "Permanent forest estates? 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"

(1) These forest states are maintained for the purpose of producing timber and other forest produce and for protective reasons.

State: Madhya Pradesh (75 percent of its total forest area)

32. Humans are dependent on the ecological system for their existence. Explain.

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

For example:

- (1) We breathe in air, we drink water, we grow crops in soil, etc. These are the non living components of the ecological system.
- (2) On the other hand plants, animals and other microorganisms recreate the quality of these non living components.

3 marks Questions

1. How does deforestation affect eco system? Give two reasons.

Ans.

- 1. Deforestation or cutting of trees affecting the eco system in many ways. It is responsible for climatic change.
- 2. It accelerates soil erosion and affects underground flow of water deforestation.

2. Depletion of forests leads to disappearance of wild life as well as many wild varieties of plants. How is Afforestation helpful in maintaining ecological balance?

Ans.

- 1. Afforestation plays a major role in enhancing the quality of environment. They modify local climate. They influence air temperature and reduce wind forces.
- 2. Afforestation helps in controlling soil erosion.
- 3. It provides natural environment for wild life.
- 4. Afforestation helps in enhancing the quality of rainfall.

3. What is a National Park? Name any two national parks of India?

- 1. A national Park is relatively a large area where several ecosystems exist freely and are not disturbed materially by human exploitation and occupation, and where plants and animal species, aesthetic sites and habitats are of special scientific, educational and recreational interest.
- 2. There are 89 National parks in the country. The Corbett national Park in Uttarakhand.

3. Dudwa National Park in U.P.

4. What is Wildlife Sanctuary? How is it different from National Park?

Ans.

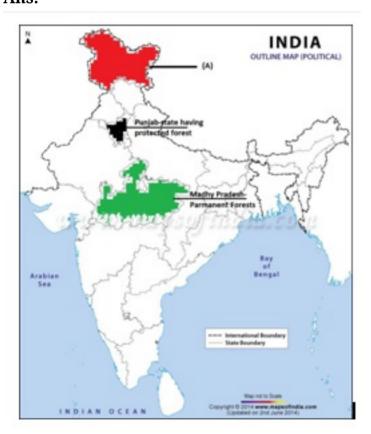
- 1. A wildlife sanctuary is like a national park but the difference is that in a sanctuary certain types of activates might be permitted. Livestock grazing and collection of forest produce, for instance, may be allowed.
- 2. In a national park, conservation of species is mostly left to nature, with the least human activities, but in a sanctuary conservation of species is affected by manipulative management.

5. What are Biosphere Reserves?

- 1. Biosphere Reserves are multipurpose protected areas created to deal with the issue of conservation of bio-diversity and sustainable use.
- 2. In a biosphere reserves, local communities, management agencies, scientists, cultural groups and non government agencies work together to manage and substantially develop the area resources.
- 3. Here even agricultural activities are allowed to the local communities and bonafide employment is provided to them. Tourism is allowed to boost revenue.
- 6. Features A is marked in the given political map of India. Identify this feature with the help of the following information and write their correct name on the line marked on the map. (a)Type of forest
- B. on the same map of India locate and label the following items with appropriate symbols:
- 1. A state having Protected forest



2. A state having largest area under protected forest Ans.



7. Why is the Himalayan Yew in trouble?

Ans.

- 1. The Himalayan Yew, locally known as the Thuner is a medicinal plant. Its biological name is Texus wallachiana.
- 2. It is found in certain parts of Himachal Pradesh and Arunachal Pradesh.
- 3. This wonder plant has a chemical compound taxol which is extracted from its twigs, roots, bark and needles. This chemical is used to manufacture a drug which is used to manufacture a drug which is the largest anti-cancer drug in the world today
- 4. Over the past 10 years this plant has been over-exploited resulting in drying up of trees which could have survived and served their use for more years.

8. What steps have been adopted under the Indian Wildlife Act to protect endangered species of animals?

Ans.

- 1. In response to the conservationist's demand for national wildlife protection program in 1960s and 1970s, the Indian Wildlife Protection Act was implemented in 1972.
- 2. It contained many provisions for protecting habitats. The main focus was on protecting the remaining population of certain endangered species.
- 3. For this to be accomplished hunting was banned, legal protection was given to their habitats and trade in wildlife was restricted.
- 4. National parks and wildlife sanctuaries was setup.

9. What are the three types of forests as identified by Forest Department?

Ans.

- 1. Reserved Forests: These are the forests which are permanently earmarked for production of either timber or other forest produce.
- 2. Protected Forests: As the name indicates these forests are protected from further depletion.
- 3. Unclassed Forests: This consists of inaccessible forests or unoccupied wastes.

10. Large scale development projects have significantly to the loss of forests. Give

reasons to support this statement.

Ans.

- 1. Large-scale development projects have also contributed significantly to the loss of forests.
- 2. Since 1951, over 5,000 sq km of forest was cleared for river valley projects.
- 3. Clearing of forests is still continuing with projects like the Narmada Sagar Project in Madhya Pradesh, which would inundate 40,000 hectares of forests.

11. How mining is responsible for the loss of forests. Give reasons.

Ans.

- 1. Mining is important factor behind deforestation.
- 2. The Buxa Tiger Reserve in west Bengal is seriously threatened by the ongoing dolomite mining.
- 3. It has disturbed the natural habitat of many species and blocked the migration route of several others, including the great Indian Elephant.

12. Differentiate between Extinct Species and Endangered species.

Ans.

Extinct Species	Endangered Species
1. These are the species which are not found after search	1. These are the species which
of known or likely areas where they may accrue.	are in danger of extinction.
2. Example: Asiatic Cheetah, Pink Headed Duck.	2. The examples of such species
2. Example. Asiatic Cheetan, Pink Headed Duck.	are black buck, crocodile.

13. Do you agree that natural vegetation is important for the environment as well as for the human beings? Give reasons to support your answer.

Ans. Natural vegetation is very important for the environment as well as for human life. So, it is very essential to conserve it. The main reasons for the importance of natural vegetation are following:

- 1. Natural vegetation adds beauty to nature.
- 2. Natural vegetation provides habitat to the wildlife, both birds and animals.
- 3. The coming generation would be deprived of great variety of fauna without the natural vegetation.

14. How does indiscriminate deforestation affect the ecosystem?

Ans.

- 1. The process of clearing of forests by cutting or burning of trees is known as deforestation.
- 2. In India, large areas of forests have been cleared for cultivation and settlement.
- 3. The growth of population has increased the pressure on human occupancy of land.
- 4. Hence, the depletion of forests affects the ecosystem, and as a result, soil erosion occurs. It has affected the climate of areas. It has also caused floods in many areas.

15. What is biological diversity? Why biodiversity is important for human lives?

Ans. Biological diversity is immensely rich in wildlife and cultivated species, diverse in form and function but closely integrated in a system through multiple networks of interdependencies.

Following are the importance:

- 1. Human beings depend on biodiversity for their very survival.
- 2. Without plants and animals we cannot survive, because we get oxygen from plant and it create the quality of air we breathe in.

16. What is enrichment plantation? How is it harmful for natural habitat? Explain with example.

Ans. Some of our environmental activists say that the promotion of a few favored species, in many parts of India, has been carried through the ironically-termed "enrichment plantation", in which a single commercially valuable species was extensively planted and other species eliminated.

For instance, teak monoculture has damaged the natural forests of South India and Chir Pine (pinus roxburghii) plantation in Himalayas has replaced the Himalayan Oak (quercius spp.) and Rhododendron forests.

17. "India's environment is at great risk". Justify this statement.

Ans.

- 1. Over half of India's natural forests are gone, one third of its wetlands drained out.
- 2. 70% of its surface water bodies polluted and 40% of its mangroves eliminated.
- 3. Hunting and trade of wild animals and commercially valuable plants are still going on.
- 4. As a result, thousands of plant and animal species are heading towards extinction.

18. Give any three methods of forest conservation adopted by the government after independence.

Ans.

- 1. The Indian wildlife Protection Act was implemented in 1972 with aim to protect wild life.
- 2. Government established national parks, Biosphere reserves and Wildlife Sanctuaries.
- 3. The central government announced several projects for protecting specific animals-Project Tiger.

19. How were colonial forest policies responsible for the depletion of forest resources in our country?

Ans. Some of our environmental activists say that the promotion of a few favored species, in many parts of India, has been carried through the ironically-termed "enrichment plantation", in which a single commercially valuable species was extensively planted and other species eliminated.

For instance, teak monoculture has damaged the natural forests of South India and Chir Pine (pinus roxburghii) plantation in Himalayas has replaced the Himalayan Oak (quercius spp.) and Rhododendron forests

20. What types of forests are found in different parts of India?

Ans.

- 1. Jammu and Kashmir, Andhra Pradesh, Uttrakhand, Kerala, Tamil Nadu, West Bengal and Maharashtra have large percentage of reserved forests of its total forest area.
- 2. Bihar, Haryana Punjab, Himachal Pradesh, Odisha and Rajasthan have a bulk of it under protected forests.
- 3. All Northern eastern states and parts of Gujarat have a very high percentage of their forests as un-classed forests managed by local communities.

21. Why do we need to conserve our forest and wildlife resources? Explain any three reasons.

Ans.

- 1. It preserves ecological diversity that why there is a need to conserve our forests and wildlife.
- 2. It preserves our life support system-water, air soil that why there is a need to conserve our forests and wildlife.
- 3. It preserves genetic diversity of plants and animals which generates better breeding that why there is a need to conserve our forests and wildlife.

22. What are Sacred groves? How these are helpful in the conservation of flora and fauna?

- 1. Sacred groves are patches of forest or parts of large forests that have been left untouchedany interference with them being banned socially on account of sacredness and spiritually attached to them.
- 2. Sacred groves literally mean a forest of Gods and Goddesses. Due to the fear of God people have not cut the forests and kill the animals.
- 3. Sacred qualities in Indian society are ascribed not only to forests but other creations of nature as we (such as rivers, mountain peaks, animals etc.), which are closely protected.

23. Write any three features of Un-Classed forests..

Ans.

- 1. This consists of inaccessible forests or unoccupied wastes.
- 2. They belong to both government and private individuals and communities.
- 3. These are mostly found in the North-eastern states and parts of Gujarat where these are managed by the local communities.

24. Write a short note on reserved Forests.

Ans.

- 1. Reserved Forests are regarded as the most valuable as far as the conservation of forest and wild life resources concerned.
- 2. These are permanently earmarked either for production or other purpose.
- 3. More than half of the total forest land has been declared as reserved forests.

These are controlled by government

25. Write down the features of the Reserved Forests.

Ans.

- 1. Reserved forests are permanently earmarked for production of either timber or other forest produce.
- 2. Grazing and cultivation are not allowed.
- 3. More than 50% of the total forest land has been declared as reserved forest.
- 4. These are important for forest and wildlife conservation.
- 5. These forests o Jammu and Kashmir, Andhra Pradesh, Uttrakhand, Kerala, Tamil Nadu, West Bengal and Maharashtra fall under this category.

26. Write down the features of the Protected Forests.

Ans.

1. These forests are protected from further depletion.

- 2. Almost one-third of total forest area id protected forest, as declared by Forest Department.
- 3. Almost 1/3 of the total forest land is declared as protected forests.
- 4. The forests of Bihar, Haryana, Punjab, Himachal Pradesh, Orissa and Rajasthan fall under this category.

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

Ans.

- 1. Developed countries consume more resources than underdeveloped or developing countries. For example an average American consumes 40 times more resources than an average Somalian.
- 2. 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.
- 3. Rich people use non-renewable resources at large scale but poor people are mostly dependent upon natural resources.

28. "India has rich flora and fauna." Explain

Ans.

- 1. India is one of the world's richest countries in terms of its vast array of biological diversity.
- 2. Over 81000 species of fauna and 47000 species of flora are found in this country.
- 3. Of the estimated 47,000 plant species, about 15000 flowering species are indigenous to India.
- 4. It has nearly 8% of the total number species of the world (estimated to be 1.6 million).

29. Highlight the major drawback of the State of Forest Report (1999).

Ans.

1. The dimensions of deforestations in India are staggering. The forest cover in the country

- is estimated at 637293 sq km, which is 19.39 percent of the total geographical area.
- 2. According to state of Forest report (1999), the dense forest cover has increased by 10098 sq. km since 1997.
- 3. However this apparent increase in the forest cover is due to plantation by different agencies.
- 4. The state of Forest report does not differentiate between natural forests and plantation. Therefore this report fails to deliver accurate information about actual loss of natural resources.

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

Ans.

- 1. The Indian Wildlife protection act was implemented in 1972 with various provisions of protecting wildlife.
- 2. Forests are divided in to three categories in order to protect them from further depletion.
- 3. The steps taken by community to save flora and fauna are very appreciable.

31. Distinguish between reserved and protected forests.

Ans.

Reserved Forests	Protected Forests
(1) The reserved forests are regarded as the most valuable.(2) More than half of the total forests has been declared reserved forests.(3) These forests are majority found in Jammu & Kashmir, Andhra Pradesh, Uttranchal, Kerala, Tamil Nadu, West Bengal & Maharashtra.	 (1) The forests lands are protected from any further depletion. (2) Almost one third of the total forest area is declared protected forests. (3) These forests are majority found in Bihar, Haryana, Punjab, Himachal Pradesh, Rajasthan & Orissa.

32. Name any two North Eastern States of India having over 60 percent of Forests cover. Give two reasons.

Ans. States - (i) Arunachal Pradesh (ii) Manipur

- (1) There is an abundance of rainfall in N.E. States.
- (2) The hilly terrain of these states protects the forests from human exploitation.

33. What are the negative factors that cause such fearful depletion of flora and fauna?

Ans. (1) Expansion of railways.

- (2) Conversion of forest land into agricultural land
- (3) Mining activities.
- (4) Large Scale development projects like river valley project etc.
- (5) Grazing of Pastoral animals.
- (6) Hunting and poaching of wild animals. (Any four)

34. Distinguish between endangered and extinct species.

Endangered Species	Extinct 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 a decline in their population continue to operate. (3) Examples: Blackbuck, wild ass, Indian rhino, crocodile, lion-tailed macaque etc. 	(1) These are species which are not found after searches of known or likely areas where they may occur.(2) They are already missing and their survival is suspicious.(3) Examples : Asiatic cheetah, pink headed duck, etc.

- (1) These are species which are not found after searches of known or likely areas where they may occur.
- (2) They are already missing and their survival is suspicious.
- (3) Examples : Asiatic cheetah, pink headed duck, etc.
- (4) The people on their parts also cooperate to check the falling of trees. "Chipko Movement" to check the careless falling of trees in the forests.

5 marks Questions

1. How forests are useful to man?

Ans.

- 1. The wood that we get from the forests is important for building and construction purposes, for domestic furniture and for fuel.
- 2. The raw materials for paper industry, match-making and sport materials are mainly derived from the forests.
- 3. The sandal wood, gums, resins, turpentine oil etc. are extracted from the forest products. Besides the above products, the forests yield many other useful products such as herbs, lac, honey etc.
- 4. Grass grown in forests is used for grazing the cattle, sheep, camel etc. To great extent, the shortage for fodder is also made up by these forests.
- 5. They play a major role in enhancing the quality of environment. They modify local climate. They help in controlling soil erosion.

2. Explain how human activities have affected the depletion of flora

- 1. Humans have cleared the jungles for their own living and the livings of their animals as well as for the construction of their houses. Too much destruction of trees has disturbed the ecosystem and created various health problems for themselves.
- 2. The agriculture expansion during the colonial rule and even after independence proved one of the major causes of the depletion of the flora and fauna.
- 3. The great demand of sleeper for the expansion of railways and ship-building during the colonial rule also inflicted a great damage to the Indian forests.

- 4. As a result of the removal of the original plant cover and its replacement by a single crop, the biological diversity has been reduces and a single crop has become vulnerable to pests and diseases.
- 5. The burning of fossil fuels in large quantity, automobile exhausts, gaseous effluents from factories have led to the pollution of air and water.

3. What were the views of foresters and environmentalists regarding the degrading factors behind the depletion of forest resources?

Ans.

- 1. Manu foresters and environmentalists hold the view that the greatest degrading factors behind the depletion of forests resources are grazing and fuel wood collection.
- 2. Though there may be some substance in their argument, yet, the fact remain that a substantial part of the fodder demand is met by lopping rather than by felling entire trees.
- 3. 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.
- 4. These protected areas, thus mean different things to different people, and therein lays the fertile ground for conflicts.

4. Write down the features of JFM.

- 1. In India Joint Forest Management program furnishes a good example for involving local communities in the management and restoration of degraded forests.
- 2. The program has been in formal existence since 988 when the state of Orissa passed the first resolution for joint forest management.
- 3. JFM depends on the formation of local (village) institutions that undertake protection activities mostly on degraded forest land managed by the forest department.
- 4. In return, the members of these communities are entitled to intermediary benefits like non timber forest produces and share in the timber harvested by successful protection.

5. What steps must be taken to preserve the natural vegetation?

Ans.

- Cutting of the trees in the forests must be stopped. The government has taken adequate steps in this direction. Forest department has been created for this purpose. Laws have been implemented to punish the persons who are found guility of cutting of trees.
 Awareness among the people is more important. Without this awareness result cannot be satisfactory.
- 2. The people must cooperate to check the feeling of trees. Their active participation is most important in this regard. Many persons have must come forward for this task.
- 3. Necessary wood for industrial purposes and for other activities must be acquired in a well planned manner, so that industrial growth and environment protection both can be achieved.
- 4. Wherever the trees have been cut for any reason, new saplings of trees must be planted to maintain the ecological balance.
- 5. Festivals like Vanmahotsava should be celebrated everywhere. It would help in growing the awareness.

6. What are the steps taken by Government to conserve flora and fauna of the country?

- 1. To protect flora and fauna, the Indian wildlife protection Act was implemented in 1972, with various provisions for protecting habitats.
- 2. An all–India list of protected species was also published. The thrust of the program was towards protecting the remaining population of certain endangered species by banning hunting, giving legal protection to their habitats and restricting trade in wildlife.
- 3. Central and many stage governments established national parks and wildlife sanctuaries.
- 4. The central government 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 crocodile-freshwater crocodile, saltwater crocodile and the Gharial, the Asiatic lion, and others.
- 5. Most recently, the Indian elephant, black buck, the great Indian bustard and the snow leopard, etc. have been full or partial legal protection against hunting and trade

throughout India.

7. Highlight the trees and animals which are worshiped by Indian societies in different parts of India?

Ans.

- 1. The Mundas and the Santhals of Chhota Nagpur region worship the mahua and kadamba tree.
- 2. The tribals of Orissa and Bihar worship the tamarind and mango trees during auspicious accessions such as weddings.
- 3. The peepal and banyan tree are considered sacred all over the country.
- 4. Certain animals such as macaques and langurs are treated as a part of temple devotees.
- 5. In Rajasthan nilgai, peocock and chinkara are an important part of the community and no one can think of harming them

8. Write a short note on Beej Bachao Andolan in TehriNavdanya.

Ans.

- Beej Bachao Andolan in Tehri and Navdanya-Save the seed movement searches, reintroduces, collects, tests, distributes and popularizes every indigenous variety of mountain crops available.
- 2. It has also been able to successfully revive the free exchange of seeds within the community and has proved to be a lifeline of traditional mountain agriculture.
- 3. It advocates the discontinuation of the use of chemical dependent seeds and synthetic chemicals.
- 4. These measures, they argue, are also economically viable as diversified crop production in adequate quantities have been achieved.
- 9. Mention the negative factors which since pre-independence to present period have contributed significantly to the fearful depletion of flora and fauna in India.

- 1. Colonial forest policies were responsible for depletion of forests, as enrichment plantation which promoted a few favoured species eliminated the others.
- 2. Between 1951 and 1980 large areas of forests were transformed into agricultural land. It is estimated that more than 26,200 sq. km of forest area was used for this purpose.
- 3. Expansion of railways, commercial and scientific forestry, mining activities and agriculture have contributed toward depletion of flora and fauna.
- 4. Agricultural practices such as slash and burn popular in the tribal belts have also contributed towards depletion of flora and fauna.
- 5. Development projects such as the Narmada Sagar Project in Madhya Pradesh have also led to the loss of forests.

10. The destruction of forests and wildlife is not just a biological issue. The biological loss is strongly correlated with the loss of cultural diversity. Elucidate.

- 1. Deforestation and destruction of wildlife is not just a simple problem. It has other related issues. This biological loss correlates highly with the loss of cultural diversity.
- 2. These losses have had a deep and lasting impact on the forest dependent communities. These indigenous communities are directly dependent on forests for their food, medicines, spirituality and other needs. Due to deforestation these communities have become marginalized and impoverished.
- 3. Here again women are more affected than man. In most societies women shoulder the responsibilities of collection of basic substance needs such as fuel, fodder, water, etc.
- 4. Women faces sever drudgery if their resources get depleted or scare and their health deteriorates as they have to traverse long distances to collect these resources.
- 5. Deforestation also leads to floods and drought which hits the economically backward strata very hard. This includes more poverty.

Multiple Choice Questions

Q1. The diverse flora and fauna of the planet are under great threat mainly due to: (a) Global Warming (b) Lack of water availability (c) Insensitivity to our environment (d) Increasing pollution Ans.(c) Insensitivity to our environment Q2. Which one of the following is an endangered species of Manipur? (a) Blue Sheep (b) Asiatic Buffalo (c) Sangai (brow anter deer) (d) Cattle Ans.(c) Sangai (brow anter deer) Q3. "The species that are not found after searches of known or likely areas where they may occur" are known as: (a) Normal species (b) Vulnerable species (c) Extinct species (d) Rare species **Ans.**(c) Extinct species Q4. Which one of the following is a medicinal plant used to treat some types of cancer? (a) Himalayan Yew (b) Himalayan Oak (c) Madhuca insignis (d) Hubbardia heptaneuron36 **Ans.**(a) Himalayan Yew Q5. In which year, the Indian Wildlife (Protection) Act was implemented?

(a) 1970 (b) 1971
(c) 1972 (d) 1974
Ans. (a) 1970
Q6. Which one of the following was launched in 1973?
(a) Project Tiger (b) Indian Wildlife Act
(c) Wildlife Act (d) Indian Wildlife Protection Act
Ans.(a) Project Tiger
Q7. Which one of the following is located in West Bengal?
(a) Corbett National Park (b) Sundarbans National Park
(c) Sariska Wildlife Sanctuary (d) Bandhangarh National Park
Ans.(b) Sundarbans National Park
Q8. In which one of the following states is Periyar Tiger Reserves Located?
(a) Rajasthan (b) Assam
(c) Uttranchal (d) Kerala
Ans.(d) Kerala
Q9. Which one of the following States has the largest area under permanent forest?
(a) Uttar Pradesh (b) Jammu & Kashmir
(c) Punjab (d) Madhya Pradesh
Ans.(d) Madhya Pradesh
Q10 Which one of the following is a great achievement of the Chipko Movement?
(a) More trees are planted

- (b) Development in Himalayan region
- (c) Successfully resisted deforestation
- (d) Soil erosion get declined.

Ans.(c) Successfully resisted deforestation

Short Answer Type Questions:

Q1. In what ways the forests were harmed by the colonial government?

Ans. (1) For expansion of railways.

- (2) For expansion of agricultural field.
- (3) For expansion of commercial and scientific forestry.
- (4) For expansion of milling activities. (Any three)37
- Q2. What do your know about "Permanent forest estates? 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"

(1) These forest states are maintained for the purpose of producing timber and other forest produce and for protective reasons.

State: Madhya Pradesh (75 percent of its total forest area)

Q3. Humans are dependent on the ecological system for their existence. Explain.

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

For example:

- (1) We breathe in air, we drink water, we grow crops in soil, etc. These are the non living components of the ecological system.
- (2) On the other hand plants, animals and other microorganisms recreate the quality of these non living components.

Q4. Distinguish between reserved and protected forests.

Reserved Forests	Protected Forests
(1) The reserved forests are regarded as the most valuable.	(1) The forests lands are protected from any further depletion.
(2) More than half of the total forests has been declared reserved forests.	(2) Almost one third of the total forest area is declared protected forests.
(3) These forests are majority found in Jammu & Kashmir, Andhra Pradesh, Uttranchal, Kerala, Tamil Nadu, West Bengal & Maharashtra.	(3) These forests are majority found in Jammu & Kashmir, Andhra Pradesh, Uttranchal, Kerala, Tamil Nadu, West Bengal & Maharashtra.

Q5. Name any two North Eastern States of India having over 60 percent of Forests cover. Give two reasons.

Ans. States - (i) Arunachal Pradesh (ii) Manipur

- (1) There is an abundance of rainfall in N.E. States.
- (2) The hilly terrain of these states protects the forests from human exploitation.

Long Answer type questions

Q1. What are the negative factors that cause such fearful depletion of flora and fauna?

Ans. (1) Expansion of railways.

- (2) Conversion of forest land into agricultural land
- (3) Mining activities.
- (4) Large Scale development projects like river valley project etc.
- (5) Grazing of Pastoral animals.
- (6) Hunting and poaching of wild animals. (Any four)

Q2. Distinguish between endangered and extinct species.

Endangered Species	Extinct Species
(1) These are species which are in danger of extinction.	(1) These are species which are not found after searches of known or likely areas where they may occur.
(2) The survival of such species is difficult if the negative factors that have led to a decline in their population continue to operate.	(2) They are already missing and their survival is suspicious
(3) Examples : Blackbuck, wild ass, Indian rhino, crocodile, lion-tailed macaque etc.	(3) Examples : Asiatic cheetah, pink headed duck, etc.

Q3. How forests are useful to man?

Ans. (1) The raw materials for paper industry, match making, gums and resins are also extracted from the forest products.

- (2) They help in controlling soil erosion.
- (3) They help in enhancing the quantity of rainfall.
- (4) They provide certain types of herbs which are in turn used to produce useful medicines.

Q4. Describe the methods of forest conservation.

Ans. (1) The cutting of trees in the forest must be stopped at all costs. Our government has taken various steps in this direction.

- (2) Mass Media like newspapers, radio, television and cinema can help a lot in this direction.
- (3) We should bring more and more areas under forests (at least up to 33%) for the balanced development of our country.
- (4) The people on their parts also cooperate to check the falling of trees. "Chipko Movement" to check the careless falling of trees in the forests.