

SCIENCE

(Biology)



Important Questions

➤ Multiple Choice Questions:

1. Surangams are the age-old concept of water harvesting in
 - (a) Karnataka
 - (b) Kerela
 - (c) Tamil Nadu
 - (d) Andhra Pradesh
2. The quality of environment can be improved by-
 - (a) deforestation
 - (b) over use of natural environment
 - (c) erosion
 - (d) conservation
3. Which one of the following is an example of nonrenewable resource?
 - (a) Water
 - (b) Vegetation
 - (c) Wind
 - (d) Coal and minerals
4. Which of the following community in Rajasthan has a religious tenet of conservation of forest and wildlife?
 - (a) Munda
 - (b) Jaiswal
 - (c) Bishnoi
 - (d) Jain
5. Which of the following is not an use of forest?
 - (a) Controls floods.
 - (b) Used to make paper.
 - (c) Causes soil erosion.
 - (d) Resin, gum and drugs are obtained.
6. Which environmental problem is associated with the construction of high rise dams?
 - (a) A large number of human settlements are submerged in the water.

- (b) It contributes to deforestation and loss of biodiversity.
- (c) It involves the spending of huge amounts of money.
- (d) All of the above

7. What do you mean by GAP

- (a) Government Action Plan
- (b) Ganga Action Plan
- (c) Government Agency for Pollution Control
- (d) Government Animal Protection Plant

8. Ganga Action plan was started in:

- (a) 1975
- (b) 1985
- (c) 1995
- (d) 2005

9. Which of the following canals brought about greenery in Rajasthan ?

- (a) Rajiv Gandhi Canal
- (b) Indira Gandhi Canal
- (c) Jawaharlal Canal
- (d) Mahatma Gandhi Canal

10. Which of the following is the age-old concept of water harvesting system in Madhya Pradesh?

- (a) Bundhis
- (b) Ponds
- (c) Bandharas
- (d) Nadis

➤ Very Short Question:

1. How is the increase in demand for energy affecting air environment already?
2. Which one of the following is a renewable resource: Natural gas, petroleum, Ground water, coal?
3. Fire wood is our conventional fuel. List any four reasons for replacing it by alternate sources of energy.
4. Which one of the following gases is the major constituent of biogas: CO_2 , H_2 , CH_4 , CO_2 ?

5. State an instance where human intervention saved the forest from destruction.
6. What is meant by renewable natural resources?
7. Why are coal and petroleum considered to be non-renewable sources of energy?
8. A person lives near a forest. Make a list of four items which he can get from the forest to meet his daily needs.
9. State any one reason for conservation of forests and wildlife.
10. Give two examples to emphasise the concept of REUSE.

➤ Short Questions:

1. Write two advantages of classifying energy sources as renewable and non-renewable.
2. What are fossil fuels? Give two examples of fossil fuels.
3. Why should we conserve forests? Suggest any two ways to conserve forests.
4. List four changes you would incorporate in your lifestyle in a move towards sustainable use of available resources.

Or

Every one of us can do something to reduce our consumption of various natural resources. List four such activities based on 3-R approach.

5. State two reasons each of conserving
 - (a) Forest
 - (b) Wildlife.
6. What are natural resources? State two factors that work against an equitable distribution of these resources.
7. What is water harvesting? Mention any two water harvesting structures.
8. Why must we conserve our forests? List any two causes for deforestation taking place.

➤ Long Questions:

1. The nature and wildlife enthusiasts who do not depend upon forests have considerable say in their management. Initially the conservationists raised their voice for particular animals like tigers, elephants, rhinoceros. They have now recognized the need to preserve biodiversity?
 - (a) Explain reason for this change of approach of wildlife enthusiasts.
 - (b) State two values that inspire them for this approach.
2. Yamuna River passing through 22Km in Delhi was once described as the life line of the city but today it has become one of the most polluted rivers in the country. According to CPCB, the water quality of Yamuna River falls under the category "E" which makes it fit for only for recreation and industrial cooling. It is completely unfit for underwater life.

- (a) Give two possible causes of water pollution in Yamuna River.
- (b) Suggest any one method by which pollution could be reduced in Yamuna river.
- (c) Mention the values portrayed by you here?

✓ **Answer Key-**

➤ **Multiple Choice Answers:**

1. (b) Kerela
2. (d) conservation
3. (d) Coal and minerals
4. (c) Bishnoi
5. (c) Causes soil erosion.
6. (d) All of the above
7. (b) Ganga Action Plan
8. (b) 1985
9. (b) Indira Gandhi Canal
10. (a) Bundhis

➤ **Very Short Answers:**

1. Answer: Increased consumption of fossil fuels (coal, petroleum, natural gas) is releasing a lot of polluting gases (CO₂, CO, SO₂, NO_x) some of which are causing green house effect and producing acid rain.
2. Answer: Ground water.
3. Answer:
It results in deforestation,
Energy value is small.
It is bulky,
It causes more pollution.
4. Answer: CH₄ (methane).
5. Answer: Silent Valley (Kerala). A dam was proposed to be built up here but opposition from environmentalists and others forced to government to convert it into biosphere reserve.
Garwal Himalayas (Uttarakhand). 'Chipko andolan prevented the destruction of forests and saved the environment from deterioration.
Kelase Forests (Karnataka). The felling of trees in the forests was opposed by 'apiko

chaluvati' led by Pandurang Hegde

6. Answer: Renewable natural resources are those resources of nature which are replenished regularly and are therefore, likely to remain available indefinitely if they are not used beyond their renewability, e.g., forests.
7. Answer: Coal and petroleum are considered non-renewable sources of energy as they are not being formed continuously in nature and are, therefore, not replenished. Continuous use will result in their depletion one day.
8. Answer:
Firewood.
Bamboo and thatch.
Food articles (edible fruits and nuts).
Grazing animals and fodder.
9. Answer: Forests protect soil, retain and regulate flow of rainwater while wildlife maintains an ecological balance of the area.
10. Answer: Reuse saves a lot of resources, e.g., reuse of carry bags, re-use of plastic bottles and jars.

➤ Short Answer:

1. Answer:
A judicious use of non-renewable energy resource so as to prevent its depletion.
Increasing use of renewable energy source but not beyond its renewability. Stress should be laid on exploitation of inexhaustible sources of energy like solar energy.
2. Answer: Fossil fuels are energy yielding combustible substances that have been formed million of years ago by compression and anaerobic heating of organic matter.
Examples. Coal, Petroleum.
3. Answer: We should conserve forests because they not only provide a number of economically important products but also provide shelter to wild animals, protect soil, regulate water flow and climate.
Forests are conserved through
 - Regular sustained yield block cutting and
 - Separation of commercial forestry (production plantation) from natural forestry.
4. Answer:
 - Electricity: Reduce consumption of electricity by switching off unwanted fans and bulbs, changing incandescent bulbs to compact fluorescent lamps.

- Water: Prevent overflow of water by closing the taps when water is not required. Leaky taps are got repaired immediately.
- Refills: Use of refills instead of purchasing new packs, e.g., pens.
- Cloth Bags: Using cloth bags instead of polythene, plastic or paper bags.

5. Answer:

Conservation of Forests:

- Forest provide a number of economically important products
- They protect the soil, retain and regulate flow of rain water.

Conservation of Wildlife:

- Wildlife is important in maintaining ecological balance of the area,
- It is gene bank for improvement of domesticated plants and animals.

6. Answer:

Definition: Natural resources are living and non-living components of nature which can be used by humans to meet their requirements.

Factors Against Equitable Distribution,

- Unequal availability of resources, abundant at one place and deficient at another place,
- Excessive use of resources by rich people and struggle for the resource in the area of deficiency by common man.

7. Answer:

Definition. Water harvesting is capturing, collection and storage of rain water and surface run off for filling water bodies and recharging ground water.

Harvesting Structures,

- Khadin
- Kattas.

8. Answer:

(a) Why Conserve Forests: We should conserve forests because they not only provide a number of economically important products but also provide shelter to wild animals, protect soil, regulate water flow and climate.

(b) Causes of Deforestation:

- Clearing forests for agriculture, roads, canals, human habitation.
- Overgrazing and excessive felling of trees.

➤ Long Answer:

1. Answer:

(a) Nature and wildlife enthusiasts are highly educated, well connected and influential persons who are concerned about degradation of environment and depletion of natural resources including forests and wildlife. They were initially concerned about the dwindling population of big animals like tigers, elephants and rhinoceros. The enthusiasts soon realized that ecological balance can be maintained only by preserving the biodiversity of nature. They have, therefore, started emphasising on creation of protected areas where exploitation is minimal and preservation is maximum.

(b)

- Love of Nature. Nature in its entirety is a pleasure to watch. It has inspired all our poets, writers and artists besides providing recreation to all others.
- Welfare of Tribals. Tribals have been living in and around forests for centuries. They not only meet their requirements from forests but are also traditionally conservationists with a lot of traditional knowledge of wildlife uses. By conserving biodiversity the welfare of the tribals will also be taken care of.

2. Answer:

(a) Causes of Water Pollution:

- Passage of untreated and half treated sewage into river.
- Passage of untreated industrial effluents into it.
- Dumping of garbage, waste water and other materials by people living in slums on the bank of river.

(b) Prevention of Pollution:

- Only properly treated and tested water should be allowed to be passed into river.
- Industrial effluents should not be allowed to flow into river. Every industrial unit must have its own effluent treatment.
- Slums should be shifted away from the banks and parks developed there to prevent future encroachments.

(c) Values:

- Critical thinking
- Problem solving
- Control of pollution
- Love for nature.