

Short Answer Type Questions – II

[3 marks]

Q. 1. (a) Distinguish between renewable and non-renewable sources of energy.

(b) Choose the renewable sources of energy from the following list:

Coal, biogas, sun, natural gas

Ans. (a)

Renewable Sources of Energy	Non-renewable Sources of Energy
1. Those sources of energy which are being produced continuously in nature and are inexhaustible are called renewable sources of energy.	1. Those sources of energy which have been accumulated in nature over a long time and cannot be quickly replaced if once exhausted are called non-renewable sources of energy.
2. Renewable sources of energy are available in unlimited quantities.	2. Non-renewable sources of energy are available in limited quantity.
Example: Air, water, solar radiation, etc.	Example: Coal, petroleum, natural gas, etc.

(b) Renewable sources of energy from the above list are Sun and biogas.

Q. 2. Why are forests considered "biodiversity hot spots"? List two ways in which an individual can contribute effectively to the management of forests and wildlife.

Ans. Forests are considered 'biodiversity hot spots' because large number of life forms (such as bacteria, fungi, fern, nematodes, insects, birds, reptiles, mammals, gymnosperms and angiosperms) are found there. These are the regions with large biodiversity of endangered species, many of them being highly endemic. Such regions are being subjected to large scale destruction and hence are called 'hot spots' by ecologists.

Ways in which an individual can contribute:

- (i) Not allowing cutting of trees.
- (ii) To promote or to make people aware about the importance of forests and wildlife.
- (iii) Not using wildlife products like fur coat or any other named product.

Q. 3. List four measures that can be taken to conserve forests.

Ans. Measures need to be taken to conserve forests:

- (i) Reforestation of the deforested areas as soon as possible.
- (ii) Ban on the indiscriminate cutting of trees.
- (iii) Felling of trees for fuel and wood should be avoided.
- (iv) Overgrazing in forests should be discouraged.

Q. 4. Why is replenishment of forest necessary? State four reasons.

Ans. The replenishment of forest is necessary because of the following reasons:

- (i) It is used to conserve soil
- (ii) It provides shelter to wild animals.
- (iii) It reduces atmospheric pollution.
- (iv) It controls flood and increases frequency of rainfall.

Q. 5. Every one of us can do something to reduce our personal consumption of various natural resources. List four such activities based on 3-R approach.

Ans. Four activities to reduce consumption of natural resources:

- (i) Reduce excessive use of natural resources like water, fossil fuels, etc.
- (ii) Reuse of some resources instead of wasting (throwing) them, like empty bottles.
- (iii) Recycle the materials like paper to reduce the pressure on existing natural resources.
- (iv) Changes in lifestyle, personal attitudes and practices.

Q. 6. Explain giving example where active involvement of local people lead to efficient management of forest.

Ans. In West Bengal, the Sal forests had been very badly degraded. A forest officer involved villagers in protection of Sal forest and gave them employment in silviculture and harvesting operations. Villagers were allowed to collect firewood and fodder on a nominal payment. Within a period of 10 years the previously worthless forests became valuable.

Q. 7. What are the causes of pollution of river Ganga?

Ans. The causes of pollution of river Ganga are as follows:

- (i) Dumping of garbage and untreated sewage from all the towns and cities on the banks of the river.
- (ii) Millions of people bathe and wash their clothes, animals and vehicles in the river water.

(iii) Releasing chemical effluents from industries directly into the river water.

(iv) Immersion of ashes or even dead bodies in the river, performed as a ritual.

(Any two)

Q 8. List two main causes of the pollution of water of the river Ganga. State how pollution and contamination of river water prove harmful for the health of the people of neighbouring areas.

Ans. Causes for pollution of water of river Ganga:

(i) Dumping of untreated sewage

(ii) Industrial wastes

Effects:

(a) Growth of disease-causing microorganisms in the river water

(b) The river water becomes more acidic which makes the soil acidic and affects the productivity of crops.

Q. 9. Why must we conserve our forests? List any two causes for deforestation taking place.

Ans. (a) We must conserve our forests for the following reasons:

(i) Forests produce a large number of products of commercial use such as timber, raw materials For the manufacture of paper, bidi leaves, gums, resins, essential oils. Thus, forests helps in economic development.

(ii) One of the main aims of conservations is to try and preserve the biodiversity we have inherited because loss of biodiversity may lead to a loss of ecological stability.

(b) Two causes of deforestation are:

(i) Indiscriminate felling (i. e., cutting) of trees for the purpose of timber, fuel and individual demand of wood.

(ii) Overgrazing by a large livestock population.

Q. 10. List any four measures for conserving forests.

Ans. (i) Replenish the trees cut down for timber by planting more trees so that there is no scarcity.

(ii) Consumption of wood and charcoal should be discouraged. Instead, use conventional sources of energy such as biogas.

(iii) Deforestation should either be stopped or reduced to minimum and should be followed by reforestation.

(iv) Acute participation of local people need to be taken for the conservation of forests.

Q. 11. Explain the role of forests in conserving the environment. How do the forests get depleted? What are its consequences?

Ans. Role of forests in conservation of environment:

- (i) Prevent soil erosion and help in maintaining fertility of soil.
- (ii) They provide shelter to wild animals and are areas that sustain biodiversity
- (iii) They reduce atmospheric pollution.
- (iv) They increase humidity and frequency of rainfall.

The forests get depleted due to forest fires, urbanisation, industrialisation, overgrazing by animals, etc. The consequences of deforestation will be:

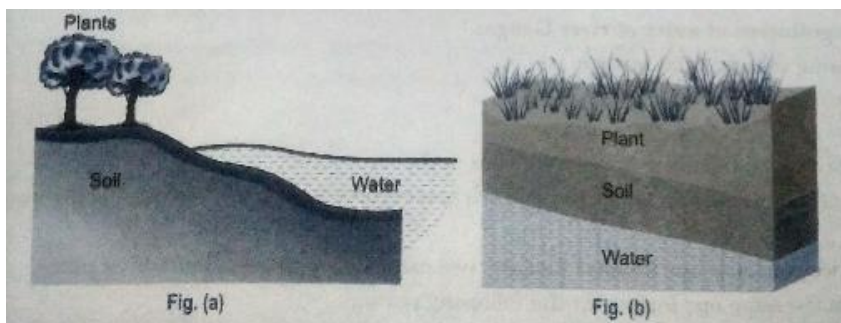
- (i) Change in climate and global warming.
- (ii) Soil erosion and floods.
- (iii) Extinction of wildlife, etc.

Q. 12. Suggest a few measures for controlling carbon dioxide levels in the atmosphere.

- Ans.** (a) Reduce the consumption of petrol in the automobiles.
(b) Use of CNG or clean fuel.
(c) Instead of burning litter prepare manure out of it.
(d) Treatment of smoke to remove harmful gases before discharging into the atmosphere.
(e) Plant more trees.

Q. 13. (a) Locate and name the water reservoirs in Figure (a) and (b).

(b) Which has an advantage over the other and why?



Ans. (a) The water reservoir is a pond in Figure (a) and underground water body in Figure (b).

(b) Figure (b) has more advantage than Figure (a) because the advantages of water stored in the ground is more than water stored in a pond. For example:

- (i) It does not evaporate.
- (ii) It spreads out to recharge wells.
- (iii) Provides moisture for vegetation over a wide area.
- (iv) It is protected from contamination by animal and human wastes.
- (v) It prevents breeding of insects.

Q. 14. List four stakeholders which may be helpful in the conservation of forests.

Ans. The four stakeholders are:

- (i) Local people living in villages near the forest.
- (ii) Industrialists who use forest produce as raw materials
- (iii) Wild life and nature enthusiasts.
- (iv) Forest department of the government.

Q. 15. List any four changes you would like to incorporate in your lifestyle in a move towards a sustainable use of available resources in our country.

Ans. (i) Save electricity by switching off unnecessary lights and fans.

(ii) Reuse of used envelopes, plastic bottles.

(iii) Opt for carpool.

(iv) Cycling to school.

Q. 16. In a village in Karnataka, people started cultivating crops all around a lake which was always filled with water. They added fertilisers to their field in order to enhance the yield. Soon they discovered that the water body was completely covered with green floating plants and fishes started dying in large numbers. Analyse the situation and give reasons for excessive growth of plants and death of fish in the lake.

Ans. Since people used excessive fertilisers in the fields, they were carried down to the lake during rains. As many fertilisers contain phosphates and nitrates, the water body became enriched with these chemicals. These chemicals promote excessive growth of aquatic plants and the surface of water was completely covered with plants (eutrophication).

Depletion of light in the water body and insufficient availability of dissolved oxygen and nutrients resulted in the death of fish.

Q. 17. We often observe domestic waste decomposing in the bylanes of our homes. List four ways to make the residents aware that the improper disposal of wastes is harmful to the environment and also for their own health.

Ans. Residents can be made aware by spreading awareness by different ways:

- (i) Organising street plays,
- (ii) distributing pamphlets to the residents,
- (iii) reuse/recycle of the waste products,
- (iv) calling meeting of residents, welfare society/association of the locality,
- (v) advertisements through TV/radio,
- (vi) putting posters/hoardings,
- (vii) segregation of the wastes as per the nature of the waste.

Q. 18. Why is sustainable management of natural resources necessary? Out of the two-reuse and recycle-which, in your opinion, is better to practise? Give reason.

Ans. Sustainable management of natural resources is necessary to sustain the resources for future generation and current basic needs of the population.

Reuse is a better practice because it can be done at household level with no expense of energy. It does not cause pollution and is an ecofriendly practice.

Q. 19. List any four advantages of water harvesting.

Ans. Four advantages of water harvesting:

- (i) Water collected in ground does not evaporate, but spreads out to recharge wells and provides moisture for vegetation over a wide area.
- (ii) The groundwater is also relatively protected from contamination by human and animal waste.
- (iii) It provides year round supply of drinking water.
- (iv) It does not provide breeding grounds for mosquitoes like stagnant water collected in ponds or artificial lakes.

Q. 20. "What was Chipko Andolan"? How did this Andolan ultimately benefit the local people and the environment?

Ans. 'Chipko Andolan (Hug the Trees Movement) was a movement started by women of Reni village in Garhwal, who hugged the tree trunks preventing the contractors from felling the trees.

This Andolan quickly spread to other parts of the country and forced the government to rethink their priorities in the use of forest produce. Consequently, the local people were benefitted.

The environment was saved from permanent damage. It affected the quality of soil and the sources of water were affected in a good way.