

Chapter - 16

Management of Natural Resources

Textual Questions and Answers :

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Q.1. What changes can you make in your habits to become more environment friendly?

Ans :- We can make the following changes in our habits to become more environment friendly.

- (i) Switch off the lights, fans, T.V. geyser and other electrical appliances when not needed.
- (ii) Stop using polythene bags and start using bags made of cloth or jute.
- (iii) Start going to school by bicycle instead of asking parents to drop us on scooter or car.
- (iv) Stop using any products made of animal skin, fur or ivory.
- (v) Collect used articles made of paper, plastic, glass and send them for recycling.

Q.2. What would be the advantage of exploiting resources with short term - aims?

Ans :- Exploiting the natural resources with short term aims would be too much beneficial for the present generation but no resources will be left for the needs of future generations. On the other hand the management of natural resources on a long term perspective will meet the basic needs of the present generation and also ensure that sufficient natural resources are left for the needs of future generation.

Q.3. How would these advantages differ from the advantages of using a long-term perspective in managing our resources?

Ans :- Exploiting the natural resources with short-term aims would be too much beneficial for the present generation but no resources will be left for the needs of future generation. On the other hand, the management of natural resources on a long-term perspective will meet the basic needs of the present generation and also ensure that sufficient natural resources are left for the needs of future generation.

Q.4. Why do you think there should be equitable distribution of resources? What forces would be working against an equitable distribution of our resources?

Ans :- Presently rich and influential people are getting maximum benefit and share of resources. Equitable distribution will benefit both poor as well as rich people.

Power and money are the two forces which are working against an equitable distribution of resources.

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Q.1. Why should we conserve forests and wild life?

Ans :- Because :- (i) They are essential for ecological balance.

(ii) They maintain biological diversity.

(iii) Prevent flood and also influence rainfall.

Q.2. Suggest some approaches towards the conservation of forests.

Ans :- (i) The indiscriminate and unauthorised cutting of forest trees for timber trade and firewood should be curbed immediately.

(ii) Plantation of tree.

(iii) Overgrazing of forest vegetation by the cattle of local people should be prevented.

(iv) Measures should be taken to prevent and control forest fires.

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Q.1. Find out about the traditional systems of water harvesting / management in your region.

Ans. The traditional system of water harvesting in our region are ponds and lakes where rain water is stored.

Q.2. Compare the above systems with the probable systems in hilly/mountainous areas or plains or plateau regions.

Ans :- Dams are built over rivers in hilly/mountainous areas. They are more advantageous because to store running river water which can be used to generate electricity. Moreover, since the water stored in dam keeps flowing to turn the turbines, it does not act as a breeding ground for mosquitoes which spread malaria. The stagnant water in ponds and lakes, however, becomes a breeding ground for mosquitoes.

Q.3. Find out the source of water in your region/locality is water from this source available to all people living in that area?

Ans :- The main source of water in a city like Guwahati is river. Water in Guwahati comes from river Brahmaputra which is then treated and is supplied to the residents through a system of water pipes. Some water is also taken from the ground through bore-wells. This water is not available to all living in some areas not approved by municipal authorities. In these areas, the ground water is the main source which is obtained through hand pumps and tubewells.

In villages and distant areas, the source of water are river, wells, lake and ponds.

EXERCISE

Q.1. What changes would you suggest in your home in order to be environment friendly?

Ans :- (i) Use CFLS instead of traditional filament type electric bulbs :

(ii) Useless of plastic.

(iii) Use solar cooker to cook food whenever possible.

(iv) Eat as much you required but do not waste food.

(v) Use water judiciously.

Q.2. Can you suggest some changes in your school which would make it environment friendly?

Ans :- (i) Enough trees can be planted in the school.

(ii) School buses should be run on CNG instead of diesel.

(iii) Rain water harvesting should be done to recharge ground water.

(iv) Water should not be wasted, electricity can be saved, paper can be reused by using it in various crafts.

Q.3. We saw in this chapter that there are four main stakeholders when it comes to forests and wildlife. Which among these should have the authority to decide the management of forest produce? Why do you think so?

Ans :- The four main stakeholders in the management of forests and wildlife are :

(i) The local people who live in and around the forest.

(ii) The forest department of the Government.

(iii) The small and big industrialists who use forest produce but are not dependent on a forest in any one area.

(iv) The forest and wildlife activists who want to save forests. The local people who live in and around the forest area should have the authority to decide the management of forest produce. This is because the local people are well versed in the practices to use the forest produce in a sustainable manner as they have been using the forest and wildlife resources since the ancient times without causing any damage to the environment.

Q.4. How can you as an individual contribute or make a difference to the management of

(a) Forests and wild life.

(b) Water resources and

(c) Coal and petroleum?

Ans :- (a) Forests and wild life :- Cutting of trees will not be allowed. The products make from animal skin, fur or ivory will not be used.

(b) Water resources :- Save water in house, install a system of rain water harvesting in house.

(c) Coal and petroleum :- Save electricity and useless of it; install electrical gadgets that useless power.

Q.5. What can you as an individual do to reduce your consumption of the various natural resources?

Ans :- One should follow the practice such as save electricity; follow the principles of three R's i.e. reduce, recycle and reuse, do not waste food, save water, use cooking gas instead of wood for cooking.

Q.6. List five things you have done over the last one week to :

(a) Conserve our natural resources.

(b) Increase the pressure on our natural resources.

Ans :- The five things done by me over the last one week conserve our natural resources were :-

(i) Replaced all the filament type bulbs by CFLS.

(ii) Save electricity by switching off unused lamps and fans.

(iii) Installed a solar water heater to obtain hot water.

(iv) Used public transport for school instead of parent's car.

(v) took part in community awareness meetings regarding environmental conservation.

(b) The five things done by me over the last one week which increased the pressure on our natural resources were :

(i) Forgot to switch off light in my room once before going to sleep.

(ii) Used more paper than required for printing on my computer.

(iii) Wasted food.

(iv) Did not close the tap while brushing the teeth one day.

(v) Wasted petrol by unnecessarily starting the motorbike.

Q.7. On the basis of the issues raised in this chapter, what changes would you incorporate in your life-style in a move towards a sustainable use of our resources?

Ans :- (i) Walking on foot or riding a bicycle to go to nearby market or other nearby places.

(ii) Put on an extra sweater on a cold day rather than use a room heater.

(iii) Switch off the lights, fans, TV, geyser and other electrical appliances when not needed.

(iv) Use solar cooker and solar water heater.

(v) Recycle products made of paper, plastics, glass and metals.

Additional Questions and Answers:

Q.1. What is natural resource? Give examples.

Ans :- Anything in the environment which can be used is called a natural resource.

Example :- Forests and wildlife, water, coal and petroleum.

Q.2. What do you mean by management of natural resources?

Ans :- A system of controlling the use of natural resources is such a way as to avoid their wastage and to use them in the most effective way is called management of natural resources.

Q.3. Why do we need to manage our resources?

Ans :- We need to manage our natural resources because of the following reasons :-

- (i) The resources of the earth are limited.
- (ii) The proper management of natural resources taken into Consideration long-term perspective and prevents their exploitation to the hilt for short-term gains.
- (iii) natural resources so that all the people can benefit from the The proper management can ensure equitable distribution of development of these resources.
- (iv) The proper management will take into consideration the damage caused to the environment during the 'extraction' or 'use' of the natural resources and find ways and means to minimise this damage.

Q.4. Define forests and wildlife.

Ans :- A large area of land on which trees and other plants grow naturally is called a forest. The wild animals and birds which live in a forest are called wild life.

Q.5. Write the advantages of silviculture program?

Ans :- (i) It produces a large quantity of raw materials for industry.

(ii) It increases the area of earth under forests.

(iii) It maintains a perfect water cycle in nature.

(iv) It prevents soil erosion.

(v) It prevents floods.

Q.6. How dams are useful for the society?

Ans :- Dams are useful for the society in the following ways :

(i) Water from a dam is used for irrigation in fields through a network of canals.

(ii) Water from a dam is supplied to the people in towns and cities through pipelines after suitable treatment.

(iii) The falling water from the dam is used for generating electricity.

Q.7. Write four advantages of water stored in the ground.

Ans :- (i) The water stored in ground does not evaporate.

(ii) The water stored in ground spreads out to recharge wells and provides moisture for crops over a wide area.

(iii) The water stored in ground does not promote breeding of mosquitoes.

(iv) The water stored in ground is protected from contamination by human and animal wastes.

Q.8. Name two fossil fuels.

Ans :- Coal and petroleum.

Q.9. What is the name of the process in which rain water falling on the earth is stopped from flowing and made to percolate into the ground?

Ans :- Rain water harvesting.

Q.10. Name the most common practice of recharging ground water.

Ans :- Rain water harvesting.

Q.11. State whether the following statement is true or false :

Chipko Andolan was associated with the conservation of wild animals such as tigers and lions.

Ans :- False.

Q.12. Choose one term from the following which include all others :

Coal, natural gas, fossil fuels, petroleum.

Ans :- Fossil fuels.

Q.13. Name a clean gaseous fuel other than LPG and natural gas.

Ans :- Bio gas.

Q14. Fill in the blanks :

(a) LPG is a ----- fuel but biogas is not a ----- fuel.

(b) Glaciers are source of -----.

(c) One of the main aim of management of forests and wildlife is to conserve the ----- which we have inherited.

(d) When a fuel burns in an insufficient supply of air, then some poisonous gas called ----- is also produced.

Ans :- (a) Fossil, fossil.

(b) Water.

(c) Biodiversity.

(d) Carbon monoxide.

Multiple choice questions :

Q.1. The Bishnoi community of Rajasthan is associated with the conservation of

(a) Coal and petroleum.

(b) Forests and wildlife.

(c) Water resources.

(d) Abiotic environment.

Ans :- (b) Forests and wildlife.

Q.2. The chipko Andolan is associated with

(a) Tigers.

(b) Turtles.

(c) Trees.

(d) Tomatoes.

Ans :- (c) Trees.

Q.3. Amrita Devi Bishnoi was associated with

(a) Preventing the custom of child marriage in Rajasthan.

(b) Campaign to save the girl child.

(c) Conservation of cultural heritage of Rajasthan.

(d) Conservation of forest and wildlife.

Ans :-(d) Conservation of forest and wildlife.

Q.4. One of the following is not a direct stakeholder in the management (or conservation) of forests. This is

(a) The people who have paper mills.

(b) The people who run the forest department.

(c) The people who campaign for the conservation of forest.

(d) The people who live in urban areas.

Ans :- (d) The people who live in urban areas.

Q.5. The river water is said to be polluted with acidic wastes if the pH of river water is :

(a) Zero.

(b) Above 7

(c) Below 7

(d) Exactly 7

Ans :- (c) Below 7

Q.6. The major program started to replenish the damaged forests is called :

(a) Horticulture.

(b) Tissue culture.

(c) Agriculture.

(d) Silviculture.

Ans :- (d) Silviculture.

Q.7. With which tree Amrita Devi Bishnoi is associated?

(a) Khajoor.

(b) Khejroli.

(c) Khejri.

(d) Keekar.

Ans :- (c) Khejri.

Q.8. One of the following does not contribute in producing acid rain. This one is :

(a) Sulphur dioxide.

(b) Carbon dioxide.

(c) Nitrogen oxides.

(d) Carbon monoxide.

Ans :- (d) Carbon monoxide.

Q.9. The poisonous gas which reduces the oxygen - carrying capacity of blood to a large extent is :-

(a) SO_2

(b) NO

(c) Co

(d) CO_2

Ans :- (c) Co.

Q.10. Which of the following is not an ancient water harvesting structure?

(a) kattas.

(b) Sargam.

(c) Kulhs.

(d) Surangams.

Ans :- (b) Sargam.

Q.11. Snakes are killed in large numbers because :

(a) They are very poisonous.

(b) They kill rates.

(c) Their skin is expensive.

(d) They damage the crops.

Ans :- (c) Their skin is expensive.

Q.12. Which of the following is not a fossil fuel?

(a) LPG.

(b) Natural gas.

(c) Biogas.

(d) CNG.

Ans :- (c) Biogas.

Q.13. Which of the following is not a natural resource?

(a) Soil.

(b) Water.

(c) Electricity.

(d) Natural gas.

Ans :- (c) Electricity.

Q.14. The most rapidly dwindling natural resource in the world is :

(a) Water.

(b) Soil.

(c) Sunlight.

(d) Forests.

Ans :- (d) Forests.

Q.15. Which of the following is not a natural resource?

(a) Snake.

(b) Wind.

(c) Wooden house.

(d) Mango tree.

Ans :- (c) Wooden house.

Q.16. The three R's which can help us to conserve natural resources for long term use are :

(a) Recycle, regenerate, reuse.

(b) Reduce, regenerate, reuse.

(c) Reduce, reuse, redistribute.

(d) Reduce, recycle, reuse.

Ans :- (d) Reduce, recycle, reuse.

Q.17. The main reason for the abundant coliform bacteria in the water of river Ganga is :

(a) Immersion of ashes of the dead into the river.

(b) Washing the clothes on the banks of river.

(c) Discharge of industrial waste into river water.

(d) Disposal of urbunt corpses in to river water.

Ans :- (d) Disposal of urbunt corpses in to river water.

Q.18. The P^H of a sample of water collected from a river is found to be in the range of 3.5 to 4.5. The most likely reason for this is the water being discharged into the river from a :

(a) Soap and detergent manufacturing factory.

(b) Car battery manufacturing factory.

(c) Alcohol manufacturing factory.

(d) Plastic cups manufacturing factory.

Ans :- (b) Car battery manufacturing factory.

Q.19. Which of the following statement is in correct :

(a) Economic development is linked to environmental Conservation.

(b) Sustainable development meets the current basic human Needs and also preserves resources for future generations.

(c) Sustainable development does not take into consideration the viewpoints of all stakeholders.

(d) Sustainable development is a long planned and persistent development.

Ans :- (c) Sustainable development does not take into consideration the viewpoints of all stakeholders.

Q.20. Arabari forest of Bengal is dominated by :

(a) Teak.

(b) Sal.

(c) Bamboo.

(d) Mangroove.

Ans :- (b) Sal.

Q.21. Ground water will not be depleted due to

(a) Process of afforestation.

(b) Establishing thermal power plants.

(c) Process of deforestation.

(d) Cultivation of high yielding varieties of

Ans :- (a) Process of afforestation.

Q.22. Ahars, Kattas, Bhundhis and Khadims are the modes of

(a) Grain storage.

(b) Soil conservation.

(c) Water harvesting.

(d) Cold Storage.

Ans :- (c) Water harvesting.

Q.23. Which of the following combination of terms has no fossil fuel?

(a) Wind, ocean, coke.

(b) Kerosene, tide, wind.

(c) Wood, wind, sun.

(d) Petrol, wood, sun.

Ans :- (c) Wood, wind, sun.

Q.24. The use of one of the following is eco-friendly. This one is.

(a) cars for transportation.

(b) Polybags for shopping.

(c) Windmills for generating power.

(d) Dyes for colouring clothes.

Ans :- (c) Windmills for generating power.

Q.25. Khadims are used in Rajasthan to :

(a) Hold water for irrigation.

(b) Recharge ground water.

(c) Promote soil erosion.

(d) Trap wild animals.

Ans :- (b) Recharge ground water.

Higher order thinking questions :

Q.1. In a village, farmers started cultivating crops all around a lake which was always filled with water. They added lot of materials W to the soil in their fields to increase the yield of crops. Soon they found that the whole surface of water in the lake was covered with a green layer made up of tiny organisms X. After some time, the fish present in the lake started dying in a large number because they could not get sufficient Y due to a process Z which had occurred in lake water and drained out all the Y present in the water of lake.

(a) What do you think materials W are?

(b) What is (i) X (ii) Y

(c) What is the process Z known as?

(d) What happens during the process Z which uses up all the Y present in lake water?

(e) What does this example tell us about the use of materials like W ?

Ans :- (a) Fertilisers.

(b) (i) Algal.

(i) Oxygen.

(c) Eutrophication.

(d) When algae die, bacteria use all the oxygen dissolved in water.

(e) Excessive use of fertilisers in fields is not good for the environment.

Q.2. There were lot of organisms A in the crop fields in an area. These organisms used to feed on organisms B also present in the crop fields but which damage the standing crops. One day some people arrived in the fields and killed all the organisms A so that they could remove their C for making fancy items which were in great demand. Due to large scale killing of A, the population of B increased too much damaging all the crops in the area and causing a famine-like situation. Apart from A, there is another organism D which can also kill and eat B. Name A, B, C and D.

Ans :- A is snakes.

B is rats.

C is skin.

D is cat.

Q.3. There are two important fuels A and B both of which are extracted from deep inside the earth. Fuel A is a 3. thick, dark, foul smelling liquid where as fuel B is a black solid. Combustion of both the fuels produces products, C, D, E and F. The water only slightly acidic but it is mainly responsible for causing global warming. The product D is neither acidic nor basic. It is harmless and does not affect the ct C makes the rain environment in any way. Both E and F attack breathing system of humans and are mainly responsible for causing acid rain. In addition to combustion of fuels A and B, the product F is also formed when lightning occurs in the sky.

(a) What are (i) Fuel A

(ii) Fuel B ?

(b) Name (i) C

(ii) D

(iii) E

(iv) F

(c) What is the process of formation of F during lightning known as ?

(d) Which fuel is supposed to be exhausted sooner : A or B?

(e) Which fuel is mostly used for generating electricity at thermal power plants?

Ans :- (a) (i) Petroleum.

(ii) Coal.

(b) (i) Carbon dioxide.

(ii) Water.

(iii) Sulphur dioxide.

(iv) Nitrogen dioxide.

(c) Natural fixation of nitrogen.

(d) A (petroleum)

(e) B (coal)

Q.4. A man bought a device X which could cook pulses, vegetables and rice without using any fuel like wood, coal, kerosene or LPG etc. The device did not work at night. It also took a lot of time for cooking.

(a) Name the device X.

(b) What is the source of energy which cooks food in this device?

(c) What is the name of the process which traps energy in this device?

(d) State one advantage (other than saving on fuel) of using such a device for cooking food.

Ans :- (a) Solar cooker.

(b) Sun.

(c) Greenhouse effect.

(d) It does not cause air pollution.

Short answer type questions :

Q.1. Name some forests products.

Ans :- Wood for fuel, paper, pulp, newsprint, board, furniture, packing, matches, sports goods, minor forest products like canes, gums, resins, dyes, tannins, lac, fibres, medicines etc.

Q.2. Write a short note on Chipko Andolan.

Ans :- The chipko andolan originated from an incident in a remote village called 'Reni' in Garhwal, high up in the Himalayas in the early 1979. A logging contractor Rad been allowed to cut down trees in a forest close to a village. The people of the village did not want this forest to be cut down because it would have spoiled their healthy environment.

One day, when the men folk of the village were out for work, the contractor's workers came in the forest to cut down the trees. In the absence of men, the women of the village reached the forest quickly and clasped the tree trunks with their arms, preventing the workers from cutting down the trees. The forest trees were thus saved. The chipko movement quickly spread across all the communities and helped in the conservation of forests.

Q.3. What is Ganga Action plan?

Ans :- River Ganga has become polluted due to the sewage, industrial waste etc, flowing into the river untreated. People also dump human corpses and other material into the river which increases the pollution. Ganga action plan came about in 1985. It is a project to clean the Ganga river. It aims to install sewage treatment plants for 27 cities at the bank of the river to handle millions of litres of sewage daily before its discharge into the river.