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Chapter – 16 Management of Natural Resources

Multiple Choice Questions

Q1. From the list given below pick the item that is not a natural resource

a) **Soil**
b) **Water**
c) **Electricity**
d) **Air**

Answer: Option c)

Natural resources are obtained naturally from environment. Electricity is not a natural resource; it is generated by human.

Q2. The most rapidly dwindling natural resource in the world is

a) **Water**
b) **Forests**
c) **Wind**
d) **Sunlight**

Answer: Option b)

Forests are the most rapidly dwindling natural resource in the world, since they provide us raw material for various industries like timber, paper industry, sports industry etc.

Q3. The most appropriate definition of a natural resource is that it is a substance/commodity that is

a) **Present only on land**
b) **A gift of nature which is very useful to mankind**
c) **A man-made substance placed in nature**
d) **Available only in the forest**

Answer: Option b)

A natural resource is a commodity that is a gift of nature which is very useful to mankind. These are air, water, soil etc.

Q4. The main cause for abundant coliform bacteria in the river Ganga is

a) **Disposal of unburnt corpses into water**
b) **Discharge of effluents from electroplating industries**

c) **Washing of clothes**
d) **Immersion of ashes**

Answer: Option a)

The main cause for coliform bacteria in the river Ganga is disposal of unburnt bodies into water. Coliform are the group of bacteria found in human intestines whose presence in water indicates contamination of river water by disease causing microorganisms.

Q5. The pH of water sample collected from a river was found to be acidic in the range of 3.5 – 4.5, on the bank of the river were several factories that were discharging effluents into the river. The effluents of which one of the following factories is the most likely cause for lowering the pH of river water?

a) **Soap and detergent factory**
b) **Lead battery manufacturing factory**
c) **Plastic cup manufacturing factory**
d) **Alcohol distillery**

Answer: Option b)

Lead is a major constituent of lead-acid battery used extensively in car batteries. The discharge of lead from battery manufacturing can lower the pH of river water by making it acidic.

Q6. The pH range most conductive for life of freshwater plants and animals is

a) **6.5 – 7.5**
b) **2.0 – 3.5**
c) **3.5 – 5.0**
d) **9.0 – 10.5**

Answer: Option a)

The pH of water should be in the range of 6.5 – 7.5 for the survival of freshwater plants and animals.

Q7. The three R's that will 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**

Answer: Option d)

Reduce – is less use of natural resources, e.g, save water by repairing leaky taps.

Recycle – is collection of materials like plastic, paper glass etc to make required things then manufacturing or extracting fresh plastic, paper, glass etc.

Reuse – is instead of disposing articles, use it again.

Q8. Given below are a few statements related to biodiversity. Pick those that correctly describe concept of biodiversity

i) Biodiversity refers to the different species of flora and fauna present in an area.
ii) Biodiversity refers to only the flora of a given area.
iii) Biodiversity is greater in a forest.
iv) Biodiversity refers to the total number of individuals of particular species living in an area.

a) i) and ii)
b) ii) and iv)
c) i) and iii)
d) ii) and iii)

Answer: Option c)

Biodiversity is the different species of flora and fauna present in an area. It is greater in forest because of plenty of resources.

Q9. Among the statements given below select the ones that correctly describe the concept of sustainable development

a) planned growth and minimum damage to the environment.
b) Growth irrespective of the extent of damage caused to the environment.
c) Stopping all development work to conserve the environment.
d) Growth that is acceptable to all the stakeholders.

a) i) and iv)
b) ii) and iii)
c) ii) and iv)
d) only iii)

Answer: Option a)

Sustainable development means planned growth with minimum damage to the environment. The growth of environment is not harmful to the stakeholders and it is

acceptable to them, e.g., if some trees is cut for various purposes, then the damage to the environment is minimised by planting new samplings in place of cut trees.

Q10. In our country. Vast tracts of forests are cleared and a single species of plant is cultivated. This practice promotes

a) **biodiversity in the area**
b) **monoculture in the area**
c) **growth of natural forest**
d) **preserves the natural ecosystem in the area**

Answer: Option b)

Monoculture in the areas is promoted by the practice of clearing vast tracts of forests and cultivating a single species of plant.

Q11. A successful forest conservation strategy should involve

a) **protection of animals at the highest trophic level**
b) **protection of only consumers**
c) **protection of only herbivores**
d) **comprehensive programme to protect all the physical and biological components**

Answer: Option d)

Forest conservation strategy involves comprehensive programme to protect all the physical and biological component. If organisms only at a particular trophic level are protected, the ecosystem would be distributed as the organism at the lower trophic would vanish fast. In this case, the organisms at the upper trophic levels would die due to starvation.

Q12. The important message conveyed by the 'Chipko Movement' is

a) **to involve the community in forest conservation efforts**
b) **to ignore the community in forest conservation efforts**
c) **to cut down forest trees for developmental activities**
d) **government agencies have the unquestionable right due to order destruction of trees in forests**

Answer: Option a)

The message conveyed by the 'Chipko Movement' is to involve the community in forest conservation.

Q13. In our country, there are attempts to increase the height of several existing dams like Tehri and Almati, dams across Narmada. Choose the correct statements among the following that are a consequence of raising the height of dams

i) terrestrial flora and fauna of the area is destroyed completely
ii) dislocation of people and domestic animals living in the area
iii) valuable agriculture land may be permanently lost
iv) it will generate permanent employment for people

a) i) and ii)
b) i), ii) and iii)
c) ii) and iv)
d) i), ii) and iv)

Answer: Option b)

The consequences of raising the height of dams are –

i) Terrestrial flora and fauna of area is destroyed completely which leads to deforestation and loss of biological diversity.
ii) Dislodgment of people and domestic animals in an area causes various social problems.
iii) agricultural land is permanently lost.
iv) The people are not given adequate compensation for their losses.
v) This leads to economic problems.
vi) It cause temporary employment for people.

Q14. Expand the abbreviation GAP

a) Governmental Agency for Pollution Control
b) Gross Assimilation by Photosynthesis
c) Ganga Action Plan
d) Governmental Agency for Animal Protection

Answer: Option c)

GAP is the abbreviation for Ganga Action Plan. This multi-core project came about in 1985 because the quality of water in the Ganga was getting poor due to pollution.

Q15. Select the incorrect statement.

a) Economic development is linked to environmental conservation
b) Sustainable development encourages development for current generation and conservation for resources for future generations

c) **Sustainable development does not consider the view point of stakeholders**
d) **Sustainable development is a long planned and persistent development**

Answer: Option c)

Sustainable development considers the viewpoints of stakeholders. It is a process in which decentralised economic growth and ecological conservation go hand in hand. It encourages development for current generation and conservation of resources for future generation. It is a long planned and persistent development.

Q16. Which of the following is not a natural resource?

a) **Mango tree**
b) **Snake**
c) **Wind**
d) **Wooden house**

Answer: Option d)

Wooden house is not a natural resource. It is a man-made, while a mango tree, snake and wind are natural resource. They are present in the environment naturally.

Q17. Select the wrong statement.

a) **Forests provide variety of products**
b) **Forests have greater plant diversity**
c) **Forests do not conserve soil**
d) **Forests conserve water**

Answer: Option c)

Forest are major site of conservation of soil. The roots of trees firmly hold the soil particles to protect it from flowing away. The humus is more in the soil of forests. Also, forest provide variety of products, e.g., timber, paper, etc. they have a greater plant diversity as different type of plants are naturally present.

Q18. Arabari forests of Bengal is dominated by

a) **Teak**
b) **Sal**
c) **Bamboo**
d) **Mangrove**

Answer: Option b)

Arabari forests of Bengal has plenty of Sal trees due to active participation of the local community, these forests underwent a remarkable recovery by 1983.

Q19. Ground water will not be depleted due to

a) **Afforestation**
b) **Thermal power plant**
c) **Loss of forest, and decreased rainfall**
d) **Cropping of high-water demanding crops**

Answer: Option a)

Ground water will not be depleted due to afforestation, since most of the groundwater is polluted and depleted by thermal power plants, loss of forest, decreased rainfall and due to use of excess water for cropping of high water demanding crops.

Q20. Opposition to the construction of large dams is due to

a) **Social reasons**
b) **Economic reasons**
c) **Environmental reasons**
d) **All of these**

Answer: Option d)

Opposition to the construction of large dams by local people is due to social, economic and environmental issues.

Q21. Khadins, Budhins, Ahara and Kattas are ancient structures that are examples for

a) **Grains storage**
b) **Wood storage**
c) **Water harvesting**
d) **Soil conversion**

Answer: Option c)

Khadins tanks in Rajasthan, Bhudhis in Madhya Pradesh and Uttar Pradesh, Ahars in Bihar and Kattas in Karnataka are some of the ancient water harvesting structures of India. Still, they are used for the conservation of water.

Q22. Pick the right combination of terms which has no fossil fuel.

a) **Wind, ocean and coal**
b) **Kerosene, wind and tide**
c) **Wind, wood and sun**
d) **Petroleum, wood and sun**

Answer: Option c)

Wind, wood and sun has no fossil fuel. Coal, petroleum and kerosene are fossil fuel in the given options.

Q23. Select the eco-friendly activity among the following

a) **Using car for transportation**
b) **Using polybags for shopping**
c) **Using dyes for colouring clothes**
d) **Using windmills to generate power for irrigation**

Answer: Option d)

Wind is a renewable source of energy. Hence, using windmills to generate power for irrigation is an eco-friendly activity. Car uses petrol or diesel, i.e., non-renewable.

Dyes are synthetic chemical compounds and polybags are non-biodegradable.

Q24. It is important to make small check dams across the flooded gullies because they

i) **Hold water for irrigation**
ii) **Hold water and prevent soil erosion**
iii) **Recharge ground water**
iv) **Hold water permanently**

a) **i) and iv)**
b) **ii) and iii)**
c) **iii) and iv)**
d) **ii) and iv)**

Answer: Option b)

It is important to make small check dams across the flooded gullies because they recharge groundwater. These dams help to hold water, which provides moisture for the vegetation cover, hence, preventing soil erosion.

Short Answer Type Question

Q25. Prepare a list of five items that you use daily in the school. Identify from the list such items that can be recycled.

Answer:

Five items that can be recycled in school are: -

1. Paper
2. Pen
3. Plastic box
4. Steel spoon
5. Scale
6. Eraser
7. Compass and divider
8. Steel lunch box etc.

The items that can be recycled are paper, plastic box, compass, steel lunch box and steel spoon.

Q26. List two advantages associated with water harvesting at the community level.

Answer:

Water harvesting is a method of holding rainwater on the surface of the earth which percolate under the ground, to recharge groundwater. Advantages of water harvesting at the community level are –

i) Giving people control on local water resources so mismanagement is reduced.
ii) Over-exploitation of these resources is reduced as water stored in the ground does not evaporate, provides moisture for vegetation and it is protected from contamination by human and animal waste.

Q27. In a village in Karnataka, people started cultivating crops all around a lake which was always filled with sugar. They added fertilisers to their field in order to enhance the yield. Soon they discovered that the waterbody 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.

Answer:

Many fertilisers contain phosphates and nitrates, the water body become enriched with these chemicals, leading to excessive growth of small, green, aquatic plants and the surface of water is covered with plants.

These small plants consume most of the dissolved oxygen of the water leading to its deficiency. Due to this, the fishes and the other aquatic life in the lake die because of oxygen starvation and depletion of light.

Q28. What measures would you take to conserve electricity in your house?

Answer:

The following measures can be taken to conserve electricity –

i) Put off the fans and lights in unoccupied rooms and when they are not required.
ii) Maximise use of solar radiation, it is pollution free and cost-free resource should be used.
iii) Fluorescent tubes or CFL should be used instead of electric bulbs as the former consume less electricity.

Q29. Although coal and petroleum are produced by degradation of bio-mass, yet we need to conserve them. Why?

Answer:

Coal and petroleum were formed from the degradation of bio-mass, years ago. As these resources are utilised at faster rate than their formation, they will be exhausted in the near future. So alternative sources of energy is required. We need to conserve them, although these resources are produced by degradation of bio-mass.

Q30. Suggest a few measures for controlling carbon dioxide levels in the atmosphere.

Answer:

Few measures for controlling carbon dioxide levels in the atmosphere are –

i) Reduce the consumption of petrol in automobiles, using car-pools and public transport helps in reducing petrol usage.
ii) Use of alternative fuels such as CNG instead of coal and petroleum.
iii) Manure should be prepared out of litter instead of burning it.
iv) The smoke coming out of the thermal power stations and other industries should be well treated to remove harmful gases, before discharging it into atmosphere.
v) Planting more and more trees.

Q31. I) Locate and name the water reservoirs in figure (a) and (b)

II) Which has an advantage over the other and why?

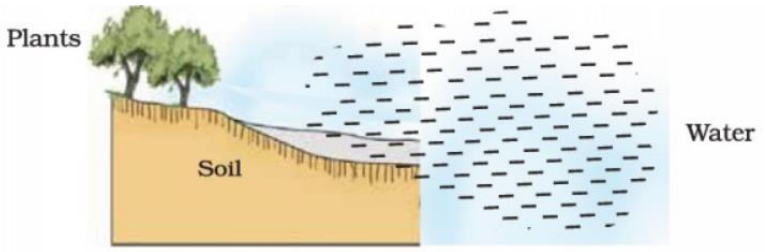
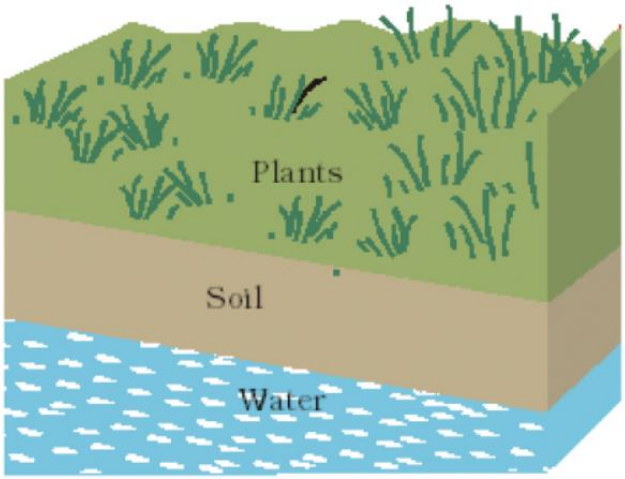


Fig. 16.1 (a)



Answer:

I) The water reservoir is a pond in figure (a) and underground water body in figure (b).

II) There are many advantages of water stored in the ground. Some of these are –

1. It does not evaporate.
2. It spreads out to recharge wells and provides moisture for crops over a wide area.
3. It does not promote breeding of mosquitoes.
4. It is free from contamination by human and animal wastes.
5. It is utilised for the benefit of local population.

Long Answer Type Question

Q32. In the context of conservation of natural resources, explain the terms reduce, recycle and reuse. From among the materials that we use in daily life, identify two materials for each category.

Answer:

1. Reduce – is to use a material/commodity in lesser quantity.
2. Recycle – is a material used once is collected and sent to a manufacturer so that they can make some other useful materials.
3. Reuse – is using a thing again and again instead of throwing it which is better than recycling as it uses some energy. We can reduce electricity use by switching off unnecessary lights and fans and save water by repairing leakage in taps.
4. Recycle - used paper, plastic bottles, metal objects can be recycled.
5. Reuse – the plastic bottles and envelopes in which we buy various food-items like jam or pickle can be reused for storing things in kitchen.

Q33. Prepare a list of five activities that you perform daily in which natural resource can be conserved or energy utilisation can be minimised.

Answer:

Activities that we perform daily in which natural resources can be conserved or energy utilisation can be –

i) Use fan and light only when required.
ii) Use CFL instead of conventional bulbs/tubes.
iii) Avoid using a house pipe for watering plants.
iv) Use solar energy.
v) Unused water in the water bottles is used for watering plants.
vi) Close taps when not in use.
vii) Use public transport or car pools to save fuel.
viii) Use CNG as alternative fuel.
ix) Pressure cookers is used for cooking food to save fuels like LPG.
x) Use stairs to climb to three floors of building instead of lift which save electricity.

Q34. Is water conservation necessary? Give reasons.

Answer:

Conservation of water is necessary because –

1. Uneven distribution – some parts of our country have high resources of water whereas other parts suffer from chronic water shortage.
2. Wide seasonal and yearly fluctuation in rainfalls.
3. Water in rivers and ponds is polluted by dumping of untreated sewage and industrial wastes.
4. The changing life style of people, in urban area, consume more water.
5. High yielding varieties of crop uses more water for irrigation. Insufficient vegetation allow little water to get stored as ground water.

Q35. Suggest a few useful ways of utilising wate water.

Answer:

Some useful ways of utilising wate water are –

1. For recharging the ground water.
2. For irrigation.
3. Treated municipal water can be used for washing cars, watering gardens etc.
4. Waste water from the kitchen can be collected and reused in toilet flushing.
5. Certain pollutants in municipal water can become fertiliser for various crops.

Q36. What is the important of forest as resource?

Answer:

Forest are renewable natural resources; it is important as a resource because –

1. Provide habitat, food and protection to wildlife.
2. Help in balancing CO_2 and O_2 of atmosphere.
3. Improves water holding capacity of soil.
4. Regulates water cycle.
5. For human beings, they are the source of various essential commodities like fuel, wood, timber, fruit, resins, etc.
6. Forest helps in conservation of biodiversity of biodiversity as a large number of species live inside them.

Q37. Why are the Arabari forest of Bengal known to be a good example of conserved forest?

Answer:

The Arabari forest of Bengal were badly degraded. In1972, the West Bengal Forest Department planned to revive the degraded forest by the local people. With the active participation of local people living in forest, the degraded Sal forest of Arabari became thick and green within ten years. Thus, villagers were given employment in

silviculture and harvesting operations of the forest and to collect firewood and fodder on a nominal payment. Hence, Arabari forest provides a good example of conserved forest.