

CHAPTER 16

MANAGEMENT OF NATURAL RESOURCES

Syllabus

Conservation and judicious use of natural resources, Forest and wild life; Coal and Petroleum conservation, Examples of people's participation for conservation of natural resources, Big dams: advantages and limitations; alternatives, if any. Water harvesting, Sustainability of natural resources.



STAND ALONE MCQs

(1 Mark each)

Q.1. It was found that water from a river was contaminated with Coliform bacteria. Which one of the following pollutant might have got mixed with the water?

- (A) Fertilizer run off (B) Industrial waste
(C) Pesticides (D) Human faecal matter.

U [CBSE SQP, 2020]

Ans. Option (D) is correct.

Explanation: Coliform bacteria is a group of bacteria found in human intestine whose presence in water indicates contamination by disease causing micro-organisms.

Q.2. Which one of the following stakeholders of forests causes the maximum damage to forest?

- (A) People who live in or around the forest.
(B) The forest department of the government.
(C) The wildlife and native enthusiasts.
(D) The industrialists. U [CBSE SQP, 2020]

Ans. Option (D) is correct.

Explanation: Industrialists who use various forests produce for their factories causes the maximum damage to forest.

Q.3. Soil fertility is determined by its ability to:

- (A) Decay organic matter
(B) Hold organic matter
(C) Hold water
(D) Support life [CBSE Delhi- Set-II, 2020]

Ans. Option (D) is correct.

Explanation: Soil fertility is the ability of the soil to supply essential plant nutrients and soil water in adequate amounts for plant growth and reproduction, thereby support life.

Q.4. 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. U

Ans. Option (B) is correct.

Explanation: Natural resource is a gift of nature which is very useful to mankind. Option (C) can be easily ruled out because natural resources are not man-made. Option (A) can be ruled out, because natural resources are present everywhere.

AIQ. 5 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 A

Ans. Option (D) is correct.

Explanation: The three R's that will help us to conserve natural resources for long term use are reduce, recycle and reuse.

- (A) (i) and (iv) (B) (ii) and (iii)
 (C) (iii) and (iv) (D) (ii) and (iv)

Ans. Option (B) is correct.

Explanation: Small check dams or temporary dams across the flooded gullies helps to prevent adverse effects of flooding on nearby areas and land.

- Q. 15. Ground water will not be depleted due to
 (A) afforestation.
 (B) thermal power plants.
 (C) loss of forest, and decreased rainfall.
 (D) cropping of high water demanding crops.

Ans. Option (A) is correct.

Explanation: Plantation of tree is called as afforestation. Afforestation conserves the soil moisture and allows the run-off water to infiltrate into ground water thereby adding to ground water recharge.

- Q. 16. Khadins, Bundhis, Ahars and Kattas are ancient structures that are examples for
 (A) grain storage. (B) wood storage.
 (C) water harvesting. (D) soil conservation.

Ans. Option (C) is correct.

Explanation: Khadins, Bundhis, Ahara and Kattas are ancient water conservation practices.



ASSERTION AND REASON BASED MCQs (1 Mark each)

Directions : In the following questions, A statement of Assertion (A) is followed by a statement of Reason (R). Mark the correct choice as.

- (A) Both A and R are true and R is the correct explanation of A.
 (B) Both A and R are true but R is NOT the correct explanation of A.
 (C) A is true but R is false.
 (D) A is false and R is true.

- Q. 1. **Assertion (A):** We need to conserve natural resources.

Reason (R): Natural resources are limited.

Ans. Option (A) is correct.

Explanation: We need to manage natural resources because natural resources are limited. Human population is increasing at a tremendous rate and utilization of natural resources is increasing at an exponential rate. Therefore, we need to conserve resources for future generations.

- Q. 2. **Assertion (A):** Reuse is better than recycle.

Reason (R): Recycle prevents environmental pollution.

Ans. Option (C) is correct.

Explanation: Reuse is better than recycle because it saves energy by using material again without any changes and also, it prevents environmental pollution.

- Q. 3. **Assertion (A):** The development which can be maintained for a long time without undue damage to the environment is called sustainable development.

Reason (R): It provide the economic well being to the present and future generation.

Ans. Option (B) is correct.

Explanation: Sustainable development is the development which can be maintained for a longtime without undue damage to the environment. It has two main objectives: To provide economic well being to the present and future generations and to maintain a healthy environment and life support system.

- Q. 4. **Assertion (A):** Chipko Andolan was done by women of Reni village.

Reason (R): Chipko Andolan was done to protect wild life.

Ans. Option (C) is correct.

Explanation: Chipko movement was started in early 1970s in village Reni in Garhwal by the women of Uttarakhand to stop cutting of forest trees of their area.

- Q. 5. **Assertion (A):** Wildlife should be conserved.

Reason (R): Human activities cause several plants and animals to extinct.

Ans. Option (A) is correct.

Explanation: Wild life is found in forests. Over a period of time, wildlife has become extinct because of certain human activities like deforestation, hunting, poaching etc.

- Q. 6. **Assertion (A):** Coliform is a group of bacteria found in human stomach.

Reason (R): Presence of coliform in water indicates contamination by disease causing microorganisms.

Ans. Option (D) is correct.

Explanation: Coliform is a group of bacteria found in human intestine whose presence in water indicates contamination by disease causing micro-organisms.

- Q. 7. **Assertion (A):** Water is a valuable resource.

Reason (R): Turn off the taps when not in use.

Ans. Option (B) is correct.

Explanation: Water is a valuable resource. So, we need to conserve it by turning off the taps when not in use.

Q. 8. Assertion (A): Coal and petroleum are categorised as natural resources, so should be used judiciously.
Reason (R): They are formed from the degradation of biomass subjected to various biological and geological processes over a million of years.

Ans. Option (A) is correct.

Explanation: Coal and petroleum are formed from the degradation of biomass subjected to various biological and geological processes over a million of years. Thus, cannot be manufactured by humans. Therefore, coal and petroleum are categorised as natural resource.

Q. 9. Assertion (A): Water harvesting is the method to capture every trickle of water that falls on the land.

Reason (R): Water harvesting recharges wells and ground water.

Ans. Option (B) is correct.

Explanation: Water harvesting is a technique of capturing rain water when it falls and taking measure to keep the water clean. It recharges wells/ground water and provides moisture for vegetation over a wide area.

Q. 10. Assertion (A): Bundhis are found in Rajasthan.

Reason (R): Bundhis are traditional water harvesting structures.

Ans. Option (D) is correct.

Explanation: Bundhis are found in Madhya Pradesh whereas in Rajasthan, Khadins and nadis are found. They all are ancient water conservation practices.

CASE-BASED MCQs

Attempt any 4 sub-parts from each question. Each sub-part carries 1 mark.

AI I. Observe the following diagram and answer any four questions from Q.1. to Q.5. [CBSE–QB 2021]



Q. 1. Choose the waste management strategy that is matched with correct example.

(A)	Refuse	Choose products that use less packaging
(B)	Reduce	Give unwanted toys and books to hospitals or schools

Q. 3. According to the 'Solid Waste Management Rule 2016', the waste should be segregated into three categories. Observe the table below and select the row that has correct information

	Wet waste	Dry waste	Hazardous waste
(A)	Cooked food, vegetable peels	Used bulbs, fluorescent lamps	Plastic carry bags, bottles, newspaper, cardboard
(B)	Coffee and tea powder, garden waste	Plastic carry bags, bottles, newspaper, cardboard	Expired medicines, razors, paint cans
(C)	Leftover food, vegetable peels	Coffee and tea powder, garden waste	Insect repellents, cleaning solutions
(D)	Uncooked food, tea leaves	Old crockery, frying pans	Coffee and tea powder, garden waste

(C)	Reuse	Not using single use plastic
(D)	Repurpose	Making flower pot from used plastic bottle

Ans. Option (D) is correct.

Explanation: Reusing a waste material to make something that is useful is called repurposing. Using a plastic bottle to make a flower pot is thus repurposing.

Q. 2. Recycling of paper is a good practice but recycled paper should not be used as food packaging because

- (A) recycled papers may release color /dyes on food items
- (B) recycled papers are not absorbent
- (C) recycled papers can cause infection due to release of methane
- (D) recycled papers are costly

Ans. Option (B) is correct.

Explanation: It is because decomposition of paper produces chemicals like methane which may cause infection.

Ans. Option (B) is correct.

Explanation: Coffee and tea powder, garden waste are recyclable wet waste, plastic carry bags, bottles, newspaper, cardboard are kitchen dry waste while expired medicines, razors, paint cans are domestic hazardous wastes.

Q. 4. Effective segregation of wastes at the point of generation is very important. Select the appropriate statements giving the importance of waste segregation.

- (i) less waste goes to the landfills
 - (ii) better for public health and the environment
 - (iii) help in reducing the waste
 - (iv) resulting in deterioration of a waste picker's health
- (A) both (i) and (ii) (B) both (i) and (iii)
(C) both (ii) and (iii) (D) both (i) and (iv)

Ans. Option (A) is correct.

Explanation: Waste segregation is included in law because it is much easier to recycle. Effective segregation of wastes means that less waste goes to landfill which makes it cheaper and better for people and the environment. It is also important to segregate for public health.

Q. 5. When recycling a plastic water bottle, what should you do with the cap?

- (A) The cap goes into a garbage can and the bottle goes in a recycling bin
- (B) Screw the cap back on the bottle, then put the bottle and cap in a recycling bin
- (C) Screw the cap back on the bottle, then put the bottle and cap in the garbage can
- (D) Recycle the cap separately.

Ans. Option (A) is correct.

Explanation: The bottle cap goes into a garbage can and the bottle goes in a recycling bin.

AI II. Study the passage and answer any of the four questions from Q.1. to Q.5.

Management and conservation of natural resources means the scientific utilization of resources. This method yields the greatest sustainable benefit of available resources to the present generations, while maintaining its potential to meet the needs and aspirations of future generations. In recent years, it has been observed that most of our natural resources are being depleted. It is mainly due to the over exploitation of resources as a result of changing lifestyle, over population and technological development. Thus the need of the hour is to wisely manage our natural resources and minimize their wastage. For this, we should remember the 3 R's that can save environment.

Q. 1. Which of the following R's is not used to save the environment?

- (A) Reduce (B) Remove
- (C) Recycle (D) Reuse

Ans. Option (B) is correct.

Explanation: Remove is not the 3 R's that can save the environment.

Q. 2. Conservation is:

- (A) Proper use of natural resources
- (B) Protection of natural resources
- (C) Utilisation of natural resources
- (D) All of these.

Ans. Option (A) is correct.

Explanation: Proper management of natural resources is essential for judicious use and conservation of natural resources.

Q. 3. If we are using discarded items of paper, plastic and sending them to the respective industries for making useful objects. Then which R to save the environment we are following?

- (A) Reuse (B) Remove
- (C) Recycle (D) Reduce

Ans. Option (C) is correct.

Explanation: We are using recycle method to save the environment.

Q. 4. Which of these you would practice in your daily life?

- (A) Reuse (B) Recycle
- (C) Reduce (D) Remove

Ans. Option (A) is correct.

Explanation: Reuse, because process of recycling uses some energy and takes some time.

Q. 5. Which of these statements is incorrect about sustainable development ?

- (A) Economic development is linked to environmental conservation
- (B) Sustainable development encourages development for current generation and conservation of resources for future generations
- (C) Sustainable development does not consider the view points of stakeholders
- (D) Sustainable development is a long planned and persistent development

Ans. Option (C) is correct.

Explanation: Sustainable developments take into consideration both economic growth and ecological conservation simultaneously besides giving due considerations to the viewpoint any four stakeholders.

III. Study the given diagrams and answer any of the four questions from Q.1. to Q.5.

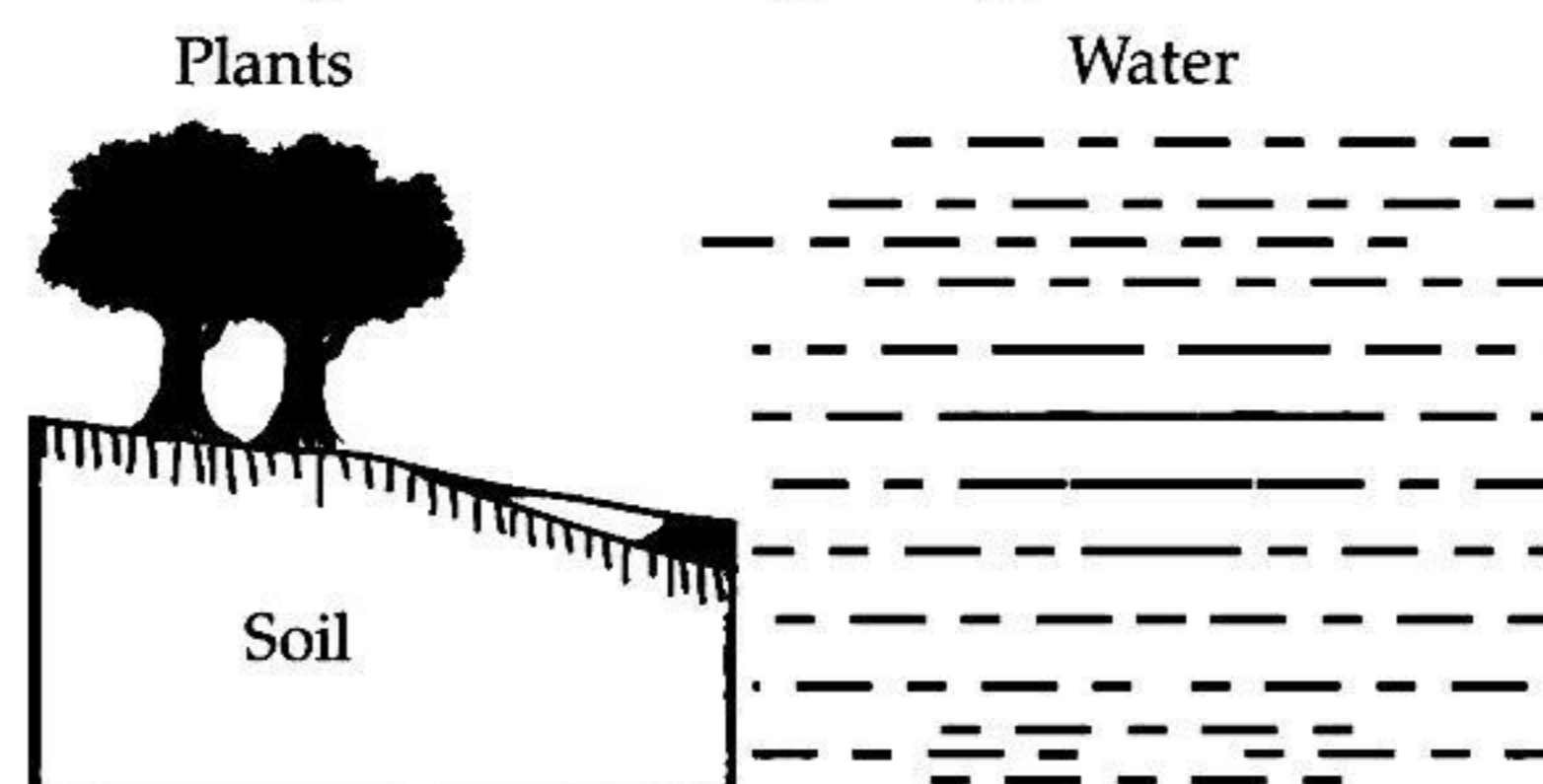


Fig. (1)

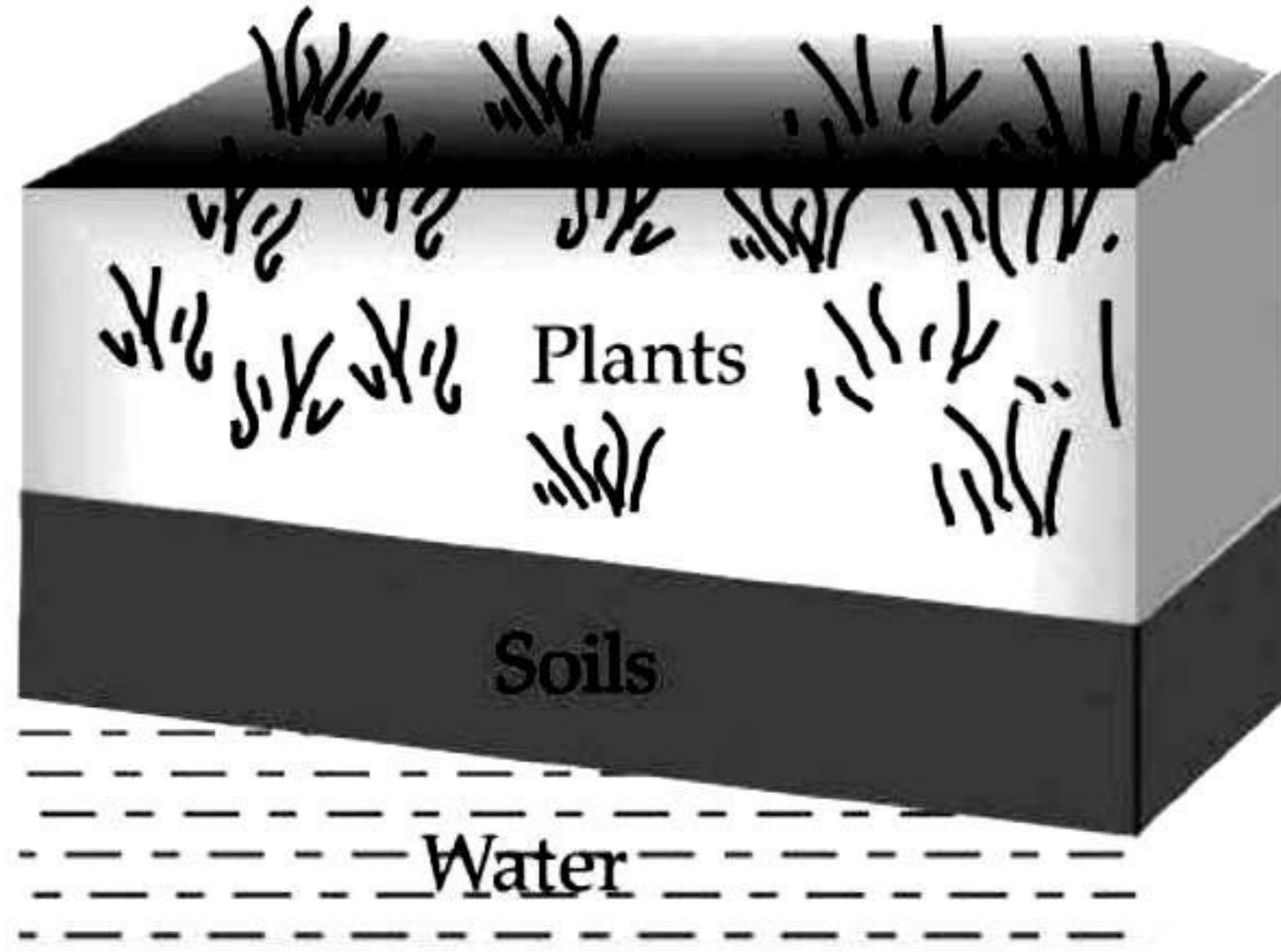


Fig. (2)

Q. 1. The water reservoir in fig (1) and (2) is _____ and _____ respectively.

- (A) Pond, underground water body
- (B) Underground water body, pond
- (C) Underground water body in both
- (D) Pond in both

Ans. Option (A) is correct.

Explanation: In fig 1, the water reservoir is a pond while in fig (2), it is underground water body.

Q. 2. Which has an advantage over the other?

- (A) Fig (1) has more advantage than fig (2).
- (B) Fig (2) has more advantage than fig (1)
- (C) Both has equal advantage.
- (D) None of these

Ans. Option (B) is correct.

Explanation: Fig (2) has more advantage than fig (1). It is because, ground water does not evaporate. It provides moisture for vegetation over a wide area. It is also protected from contamination by animal and human wastes.

Q. 3. Which of these reservoirs contains the most water ?

- (A) Atmosphere
- (B) Biosphere
- (C) Groundwater
- (D) Lakes and rivers.

Ans. Option (C) is correct.

Explanation: Ground water is the water that seeps through rocks and soil and is stored below the ground.

Q. 4. Ground water will not be depleted due to :

- (A) Afforestation
- (B) thermal power plants
- (C) loss of forest, and decreased rainfall
- (D) cropping of high water demanding crops

Ans. Option (A) is correct.

Explanation: Afforestation (plantation of trees) will save ground water from getting depleted.

Q. 5. Khadins, Bundhis, Ahars and Kattas are ancient structures that are examples for

- (A) grain storage.
- (B) wood storage.
- (C) water harvesting.
- (D) soil conservation.

Ans. Option (C) is correct.

Explanation: Khadins, Bundhis, Ahars and Kattas are ancient water conservation practices.