

CBSE Class 10 Science
Important Questions
Chapter 16
Management of Natural Resources

1 Marks Questions

1. Which one is inexhaustible natural resource?

- (a) forests**
- (b) minerals**
- (c) coal**
- (d) water**

Ans. Water

2. The three R'S that will help us to conserve natural resources for long term use are

- (a) reduce, reuse, recycle**
- (b) reduce, regenerate, reuse**
- (c) reduce, reuse, redistribute**
- (d) recycle, regenerate, reuse**

Ans. (a) Reduce, reuse, recycle

3. Select the incorrect statement.

- (a) forests provide variety of products**
- (b) forests have greater plant diversity**
- (c) forests do not conserve soil**

(d) forest conserve water

Ans. (c) Forest does not conserve soil.

4. Define afforestation.

Ans. Planting trees is called afforestation.

5. Why coal is called fossil fuel?

Ans. Coal is formed under the surface of earth by the decomposition of plants which are buried under the surface of earth million of years ago.

6. Ganga Action plan was started in-

(a) 1975

(b) 1985

(c) 1995

(d) 2005

Ans. (b) 1985

7. The most appropriate definition of any natural resources is that it is a substance that is-

(a) present only on land

(b) available only in the forest

(c) a man-made substance placed in nature

(d) a gift of nature which is very useful to mankind

Ans. (d) A gift of nature very useful to mankind.

8. Ground water will not be depleted due to-

- (a) afforestation**
- (c) loss of forest and decreased rainfall**
- (b) thermal power plant**
- (d) growing of water demanding crops**

Ans. (a) Afforestation

9. Define recycling. Give one example.

Ans. Recycling is the act of processing used or unbanned for use in creating new products. For example- use of shopping bags made of cloth or jute which can be used over and over again.

10. Who was Amrita devi?

Ans. Amrita Devi was the one who fought, first forest movement against indiscriminant cutting of trees in India in 1731.

11. The quality of environment can be improved by-

- (a) deforestation**
- (b) over use of natural environment**
- (c) erosion**
- (d) conservation**

Ans. (d) conservation

12. Select the eco-friendly activity-

- (a) making use of car for transport**

(b) making use of poly bags for shopping

(c) making use of dyes for coloring cloths

(d) making windmill to generate power for irrigation

Ans. (d) Making windmill to generate power for irrigation.

13. Which of the following is an exhaustible natural resource?

(a) solar radiation

(b) air

(c) minerals

(d) water

Ans. (c) Minerals

14. What is rain water harvesting?

Ans. Rain water collection is the activity of direct collection of rain water which can be stored for direct use or can be recharged into ground water.

15. Define a resource.

Ans. Resource is a source of supply held in reserve so that it can be changed in such a way that it becomes more valuable and useful.

16. What were the two main problems as a result of Tawa Irrigation Project?

Ans. Water logging and increasing salinity.

17. 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)

Ans. (b) (ii) and (iii)

18. Floods can be prevented by-

(a) Cutting the forests

(b) Afforestation

(c) Tilling the land

(d) Removing the top soil.

Ans. (b) Afforestation.

19. Expand the abbreviation of GAP.

(a) Governmental Agency for pollution control.

(b) Gross Assimilation by photosynthesis.

(c) Ganga action plan.

(d) Government agency for animal protection.

Ans. (c) Ganga Action plan.

20. Mention one major effect due to deforestation?

Ans. Soil erosion

21. Name two fossil fuels.

Ans. Coal and petroleum

22. Which programme was started to replenish forests?

Ans. Silviculture

23. What does the high level of total coli form count in river Ganga indicates?

Ans. It indicates that water is contaminated by disease causing micro-organisms.

24. Which canal has brought greenery to considerable areas of Rajasthan?

Ans. Indira Gandhi Canal.

2 Marks Questions

1. Why is fuel oil better than coal for industrial use?

Ans. Fuel oil is better fuel than coal because fuel oil produces less unburnt particles human as ash.

2. Why is water necessary for living organisms?

Ans. Importance of water is-

(a) It is necessary for living organism to carry out their metabolic reactions.

(b) Water is a universal solvent.

(c) It is used for cleaning, washing, drinking, etc.

(d) It helps in excretion.

(e) It helps in transportation inside the body.

3. What are the reasons for conservation of forest and wildlife?

Ans. Forest and wild life are very important natural resources. They constitute biodiversity hot spot i.e. the place where maximum biodiversity is found. They are important source of timber, firewood, leaves, medicines fruits and many other products. Wild life is very important in the maintenance of ecosystem. They play important role in maintenance of food chain and food web. They constitute the precious genetic pool.

4. Mention disadvantages of dams.

Ans. Disadvantages of dams are-

- (a)** Deforestation- It causes loss of biological diversity (plants, animals and microbes) leads to many environmental problems like water logging, earth quakes etc.
 - (b)** Displacement- Displacement of large number of peasants and tribal without enough compensation or rehabilitation lead to many social problems.
 - (c)** Water-logging and Salinization- Canals drawn out from dams causes the problems of water-logging and salinization within years in dry and half dry sandy areas.
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5. Why has it become necessary to look for inexhaustible energy sources?

Ans. We should look for inexhaustible resources because-

- (a)** To reduce pressure on exhaustible natural resources.
 - (b)** To reduce pollution.
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6. What is the difference between exhaustible and inexhaustible natural resources?

Ans.

Inexhaustible natural resources	Exhaustible natural resources
Present in unlimited quantity.	Present in limited quantity.
Not likely to be exhausted either by their use or human activities.	Likely to be exhausted by humans activities.

7. Name four modes of traditional water harvesting at the community level.

Ans. Modes of traditional water harvesting are-

- (a)** Kulhs- Found in Himachal Pradesh.
 - (b)** Khadis, Tanks and Nadis- Found in Rajasthan.
 - (c)** Ponds- Jammu and Kashmir.
 - (d)** Bundhis- M.P and U.P.
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8. What are the advantages of exploiting resources with short term aim?

Ans. The advantages of exploiting resources with short term aim will be self-centered satisfaction. They provide immediate advantages.

9. Why wildlife is important to us?

Ans. Wildlife maintains balance in ecosystem. It is an important for regulating food chain and food web in ecosystem.

10. What is the difference between deforestation and afforestation?

Ans.

Deforestation	Afforestation
Cutting down of trees.	Planting trees.
It causes imbalance in nature.	It maintains balance in nature.
It causes soil erosion.	It prevents soil erosion.

11. Name four alternatives to mega projects like dams.

Ans. Alternatives are-

(a) Digging of small pits and lakes.

(b) Construction of dykes (a low wall or bank used to prevent water from invading low lying land).

(c) Construction of sand and limestone reservoirs.

(d) Setting up of water collecting units.

12. What do you meant by conservation management?

Ans. Conservation- It is the preservation from loss, waste and degradation of resources so as to last indefinitely.

Management- Management of resources is controlling its use in such a way as to provide sustained and equitable availability.

13. What are the disadvantages of using coal and petroleum?

Ans. (A)It causes air pollution.

(B) It increases the temperature of the earth and causes global warming.

14. What is GAP? Explain.

Ans. GAP is Ganga Action plan which was initiated in 1985 to restore the quality of river Ganga. To reduce domestic load on the Ganga under Ganga action plan. Some of the schemes are-

(a) Interception and diversion.

(b) Treatment of waste water

(c) River front development

(d) Electric crematorium.

15. Write steps to conserve energy.

Ans. Steps of conservation of energy-

- (a)** Make use of stairs instead of lift.
- (b)** Make a habit of switching off light, fans and other appliances when not in use.
- (c)** Solar heater, solar cooker, solar light used to cut down energy consumption.
- (d)** Soak the pulses in water before cooking. This saves fuel on cooking.

16. Mention two causes of over- exploitation of natural resources.

- Ans. (1)** Increased population requires more resources.
- (2)** Wastage – people do not use the resources judiciously.
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17. What would be the advantage of exploiting resources with short-term aims?

- Ans. (a)** It can meet the immediate needs of the masses.
- (b)** We shall be able to get industrial growth.
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18. How would these advantages differ from the advantages of using a long-term perspective in managing our resources?

Ans. Exploitation of resources with short-term aims are beneficial for present day generation while managing with long-term perspective are on a sustainable basis and are aimed to fulfill the needs of future generations as well.

19. Why should we conserve forests and wildlife?

Ans. Forests present a wide biological diversity. They are essential for ecological diversity, to prevent floods and to influence rainfall. Forests help in protection of soil and in retaining sub-soil water.

20. Suggests some approaches towards the conservation of forests.

Ans. (a) Afforestation

(b) Check on indiscriminate cutting of trees.

(c) Check on forest fires

(d) Check on overgrazing.

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

Ans. In Delhi, the source of water is Yamuna. Water from this source is available mostly to all people in Delhi.

22. What are “biodiversity hot spots”? What is the measure of the biodiversity?

Ans. Forests are “biodiversity hot spots”. One measure of the biodiversity of an area is the number of species found here.

23. What is the effect of continuous depletion of ground water along coastal region?

Ans. The effect of continuous depletion of ground water along coastal region will lead to movement of saline sea water into freshwater wells then spoiling their quality.

24. Why is dependence of man on nature greater than that of any other organism?

Ans. Man’s dependence on the environment is greater than that of other organisms because man:

(a) Develops curiosity for more comforts and security.

(b) Consumes large amount of material and energy.

(c) Develops a new kind of socio-economic environment which consists of things developed by man through his tools and techniques.

25. In addition to low rainfall, what are the other reasons for non-availability of water in arid and semi-arid zones of our country?

Ans. (a) Flowing of rain water and lack of management to harvest it.

(b) Ground water is pumped out for high water demanding crops.

(c) Water becomes unsafe and unusable due to mixing of urban wastes and effluents from the industries.

26. Why is mining a big source of pollution?

Ans. Mining causes pollution because large amount of slag is discarded for every tone of metal extracted.

27. Write two points to be kept in mind while storing water in tanks.

Ans. Storage tank should not be located close to the source of contamination and should be accessible for cleaning.

28. Write any two alternatives to dams.

Ans. Adopting water harvesting techniques and reducing the scale of floods through better catchment management.

29. Why do you think there should be equitable distribution of resources?

Ans. We think that there should be equitable distribution of resources because not only a handful of rich and powerful people, but all the people may get benefit from the development of these resources.

30. Why should we preserve bio diversity?

Ans. If the bio-diversity is not preserved, the ecological stability of an area will be lost and ecological crisis will be caused.

31. What are “bio diversity hot spots”? Why this name has been given?

Ans. Forests are called No diversity hot spots because of the presence of a large number of species of plants and animals.

3 Marks Questions

1. What are the effects of deforestation?

Ans. Effects of deforestation-

- (a)** Extinction of plants, animals and microbial species.
 - (b)** Threatening of indigenous people whose culture and physical survival depends upon the forests.
 - (c)** Regional and global climate change as the rainfall decrease and drought is common in deforested areas.
 - (d)** Global warming by releasing stored carbon into the atmosphere as carbon-dioxide which is green-house gas.
 - (e)** Increase in soil erosion and decrease in soil fertility.
 - (f)** Increase in floods.
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2. What is meant by water table? Why is it important?

Ans. Water-table- The level of water under the ground is called water table.

Advantages of underground water are-

- (a)** Instead of evaporation, the stored underground water recharges the wells by spreading out.
- (b)** It also provides moisture for vegetation over a wide area.
- (c)** It remains protected from contamination from animal and human wastes.

(d) It does not provide breeding grounds for mosquitoes.

3. What are the benefits of water harvesting?

Ans. Benefits of water harvesting-

(a) It provides: -

(i) good quality water for homes.

(ii) Self sufficiency for supply of water.

(iii) Control over water sources.

(b) Reduces: -

(i) Local flooding and drainage problems.

(ii) Soil erosion.

(iii) Ground water pollution.

(iv) Cost of usage water.

(b) Conserve ground water and contributes to ecological use.

4. Who are the stake holders of forests.

Ans. Stakeholder of forest are-

(a) The local people who are living in or around the forests.

(b) The department of forest of the government.

(c) The industrialists.

(d) The wildlife and nature enthusiasts.

5. How are water resources managed and consumed?

Ans. Water is managed and conserved in following ways-

- (a)** Install rain water harvesting system in the houses for future use.
 - (b)** Leakage of water in the toilet and pipes should be repaired when it comes in our notice.
 - (c)** To reduce evaporation and improve irrigation efficiency, drip irrigation and sprinkling may be practiced.
 - (d)** Reduce domestic water wastage and try to recycle the waste water at the home.
 - (e)** Reduce water wastage in industry by recycling the used water.
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6. Write any three steps that you would take for sustainable development of the environment.

Ans. To develop sustainable natural environment we would do following practices-

- (a)** Save electricity by switching off the lights, fans television, and other electrical appliances when not use/needed.
 - (b)** Use energy efficient electrical appliances. This is done by using compact fluorescent lamps and fluorescent tubes light instead of traditional filament type electric bulbs.
 - (c)** Use public transport for school instead of parent's car.
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7. What are different ways to reduce consumption of the various natural resources?

Ans. (a) Spread awareness about the need of conservation.

- (b)** Install a system of rain water harvesting.
 - (c)** Follow three R's- reduce, reuse and recycle.
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8. What are the problems faced by construction of large dams?

Ans. Disadvantages of construction of large dams-

- (a)** Only privileged section of people get maximum water due to mismanagement of water of

canals.

(b) Construction of dams involves deforestation of large trees resulting in imbalance in ecosystem. It also threatens the wild life of the areas.

(c) People close to source canal grow water intensive crop like rice and sugarcane whereas people further down stream do not get any water.

9. List three things which increase pressure on our natural resources.

Ans. (a) More paper is used than required for printing on computer.

(b) Keeping fan on when there is no one in the rooms.

(c) Wastage of food.

(d) Burning of crackers.

(e) Wastage of petrol by unnecessarily starting the motorbike.

10. What are the factors to check the quality of water?

Ans. To check the quality of water certain measurable factors are always followed-

(a) Total coliform count- In human intestines, a group of bacteria called coliform are found. When these bacteria are present in water, it is assumed that water is contaminated by disease causing micro-organisms.

(b) PH of water- If water is highly acidic or basic, it is said to be polluted.

(c) Heavy metals and pesticides- Amount of heavy metals like copper, zinc, lead, etc and pesticide present in water indicates pollution.

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

Ans. (a) Separate wastes into recyclable and non- recyclable.

(b) Use electricity judiciously.

- (c) Follow three R's (reduce, recycle and reuse).
 - (d) Eat as much as require do not waste food.
 - (e) Use water judiciously.
 - (f) Reuse newspapers and use less plastic.
 - (g) Have more windows in the house for natural light.
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12. What are the results of chipko movement?

Ans. (i) The chipko movement spread across the communities which also awakened the media. This forced the government, to rethink their priorities before making use of forest resources.

(ii) Local people believed in the replenishment of the plants by cutting the unwanted branches and plucking the leaves in such a way that the plants may find time to replenish.

(iii) The destruction of forests could be prevented because the local people were aware of the fact that the destruction of forest always causes loss of forests products forever, degrade the quality of soil and water.

13. Explain in detail the three R's in the process of saving the environment.

Ans. For the management of waste in a very natural way, three R,S that is reuse, recycle and reduce should be followed-

(a) Recycle- It is the act of processing used materials for use in creating new products. For Ex-use of shopping bags made of cloth or jute

(b) Reuse- using things again and again. It is better then recycle as some energy is also used recycling which not required at all in reuse.

(c) Reduce- either reduces the generation of unnecessary waste or use less.

14. What are the benefits of water harvesting?

Ans. Benefits of water harvesting.

(a) It results in recharging of ground water. Hence water is collected and stored underground and free from contamination.

(b) It neither evaporates nor becomes a mosquito breeding place.

(c) It is very useful for providing underground moisture to vegetation of large area also.

15. Why there should be equitable distribution of our resources? What forces would be working against an equitable distribution of our resources.

Ans. There should be equitable distribution of resources so that all and not just a handful of rich and powerful people benefit from the development of these resources.

Rich and powerful would be working against an equitable distribution of our resources they would exploit the natural resources in such a way that the resources would not be available for the future generation. Some people may exploit the resources and cause pollution in turn. Like during metallurgy slag can cause pollution.

16. With the help of an example explain how participation of local people is useful for conservation of forest.

Ans. The local people who live in around the forests depend on various products of the forest. To manage the forest resources in a very sustainable manner, the local people managed some movement in the near past for example. Chipko movement (Hug the trees movement) the women of Reni village of Tehri Garhwal had hugged the trees, because the workers of logging contractor started cutting the trees. Hence, the women of the village hugged the trees. Thus they prevented the workers felling the trees and the contractors had to withdraw ultimately.

17. What changes can you make in your habits to become more environment-friendly?

Ans. (a) Plant one tree on every birthday.

(b) Stop using polythene bags.

- (c) Switch off unnecessary lights and fans.
 - (d) Take bus instead of personal vehicles.
 - (e) Use CFL in place of bulbs.
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18. Why do you think there should be equitable distribution of resources? What forces would be working against an equitable distribution of our resources?

Ans. Natural resources are given to us given nature. All the individuals have equal right on these resources like air and water. Industrialists and some other rich persons are who are in power wants to grab all the resources. It is this section which is working against equitable distribution of energy.

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

Ans. The traditional system of water conservation differs from region to region for example.

- (a) Khadin, tanks and nadis in Rajasthan
 - (b) Bandharas and tals in Maharashtra
 - (c) Ahars and pyenes in Bihar
 - (d) kattas in Karnataka
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20. Compare the above system with the probable systems in hilly/mountainous areas or plains or plateau regions.

Ans. In hilly/mountainous areas mostly in Himachal Pradesh, kulhs are used to take water to several villages down the hillside. In largely level terrain, water harvesting structures are mainly crescent shaped earthen embankments or low straight concrete and rubble check dams built across seasonally flooded gullies. They are different from pits and ponds as they store running water.

21. What changes would you suggest in your home in order to be environment-friendly?

Ans. We shall follow the principle of three R's

- (i)** Reduce: Use natural resources in limited quantity avoiding wastage.
 - (ii)** Recycle: Recycle plastic, paper, glass and metal for further use.
 - (iii)** Reuse: Envelops can be reversed for reuse.
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22. Can you suggest some changes in your school which would make it environment friendly?

- Ans. (a)** Avoid unnecessary use of water coolers, heaters, fans and lights.
- (b)** Plantation of trees around the school
- (c)** Preparation of compost
- (d)** Water harvesting.
- (e)** Storing separately the articles that can be recycled.
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23. 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 produces? Why do you think so?

Ans. The local people who live in or around the forest area should have the authority to decide the management of forest produces. These people know various practices to use the resources in sustainable manner. These people have been using the forest and wild life resources since ancient times without harming or causing any damage to the environment.

24. How can you as an individual contribute or make a difference to the management of (a) forests and wildlife, (b) water resources and (c) coal and petroleum?

Ans. As an individual

- (a) (i)** I will not allow cutting of trees.

(ii) I shall plant one tree every year and watch it growing.

(b) (i) I shall use water judiciously.

(ii) I shall immediately repair leaky taps

(c) (i) I shall pool the car for going to office.

(ii) Every Sunday will be no car Sunday.

25. On the basis of the issues raised in this chapter, what changes would you incorporate in your lifestyle in a move towards a sustainable use of our resources?

Ans. I shall

(i) Minimize use of fossils fuels by pooling of car and use of public transport.

(ii) Recycle plastic, paper, glass etc.

(iii) Provide for water harvesting

(iv) Plant more trees.

(v) Use the principle of three R's.

26. Why scarcity of water is there in our country inspite of nature's monsoon bounty?

Ans. It has taken place due to the following reasons:

(a) Failure to sustain water availability underground which has resulted largely from the loss of vegetation cover.

(b) Diversion for high water demanding crops.

(c) Pollution from industrial effluents and urban wastes.

27. State benefits of water harvesting.

Ans. a. Provides self-sufficiency to water supply

- b.** Conserves valuable ground water
 - c.** Reduces cost for pumping ground water
 - d.** Reduces local flooding and drainage problems
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28. How did Chipko Andolan ultimately benefit the local population? Give any three benefits?

- Ans. a.** The locals benefitted from forest produces
- b.** The wild life and nature were conserved
 - c.** The quality of air and soil was preserved
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29. Quote three instances where human intervention saved the forests from destruction.

- Ans. a.** Contribution of Bishnoi movement
- b.** Building national parks
 - c.** Encouraging wildlife sanctuaries
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30. Write the advantages of giving the control of water management to the residents of the area?

Ans. Water harvesting techniques are highly locality specific and the benefits are localised. Thus, giving people the control over their local water resources ensures that mismanagement and overexploitation of these resources is reduced.

31. “White tiger has become an endangered species” why?

Ans. White tiger has become an endangered species because of:

- a)** Loss of habitat due to deforestation.
- b)** Poaching by man

c) or any other correct reason.

Due to this their number has decreased to such an extent that they are facing a threat to their existence.

32. “Forests can not be conserved only by legislation; local human intervention is also required.” Justify your answer with two examples.

Ans. The two examples when human intervention saved the forest are:

1. The protection of Khajuri frees- In 1731 Amrita Devi Bishnoi led a group of 363 persons who sacrificed their lives for the protection of Khajuri frees in Khejrati village (Rajasthan).
 2. Hug the trees movement(Chipko Andolan)- In a Reni village in Gharwal when the contractor’s workers came into the forest to cut down the frees against the will of local people, the women of the village reached the forest quickly and clasped the trunks with their arms, and the forest frees were thus saved.
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33. Which one is better to save an environment “Reuse” or “Recycling”? Give reasons to support your answer.

Ans. “Reuse” of material is better than “Recycling” in saving our environment because:

1. Reuse of material does not use any energy, whereas recycling uses some energy.
 2. In reuse things are used again and again instead of throwing away.
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34. Why rain harvested water stored underground has many advantages? Give any three advantages.

Ans. 1. The water stored underground does not evaporate.

2. The water stored underground percolates, which enriches the water table and recharges ground water sources.
3. The water stored underground is protected from contamination by human and animal wastes, and also does not promote breeding of pests.

35. What can you do as an individual to conserve water?

Ans. To conserve water I can adopt some changes in my habits while doing my routine work:

1. Using bucket for bathing instead of taking shower bath.
2. Cuffing down the flow of water through tap while brushing teeth or washing face, hands, etc.
3. Waste water after washing vegetables, fruits etc. will be used in watering plants. (Any other correct reason)

5 Marks Questions

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

Ans. The following measures can be taken:

- (a) Save electricity by switching off unnecessary lights and fan.
 - (b) Walk or cycle whenever possible.
 - (c) Use CFL instead of bulbs
 - (d) Do not wastes food
 - (e) Repair leaky taps at the earliest instant.
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2. 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. (i) not wasted electricity.

(ii) Planted a tree

(iii) Used cloth bag for shopping.

(iv) Not used my car and used public transport

(b) (i) I forgot to switch off room light and television set when I was away for two days.

(ii) Water kept running when I brushed the teeth and when shaved my beard.

(iii) Household garbage was thrown on the roadside.

(iv) I mixed biodegradable and non-biodegradable wastes.

3. Why are environmentalists insisting upon sustainable natural resource management? Give any four reasons.

Ans. a. Non-renewable resources are limited, we should use them judiciously

b. We should encourage the use of renewable resources

c. We should preserve the environment for future generation

d. The benefits of the controlled exploitation should go to local people