

* Choose The Right Answer From The Given Options.

[22]

1. A fuel that is commonly used in two wheelers like scooters or bikes is _____

- (A) Kerosene (B) Petrol (C) Diesel (D) LPG

Ans. : Petrol

2. An example of a renewable resource is _____

- (A) Coal (B) Water (C) Natural gas (D) Petrol

Ans. : Water

3. Which of the following gas do we use in breathing?

- (A) Carbon dioxide (B) Nitrogen (C) Oxygen (D) None of these.

Ans. : (C) Oxygen

4. Wind is:

- (A) air around us (B) rising hot air (C) air in motion (D) none of these.

Ans. : (C) air in motion

5. Which is not a property of air?

- (A) It occupies space (B) It is transparent (C) It is a gas (D) It is a compound

Ans. : (D) It is a compound

6. The main constituent of the air is:

- (A) nitrogen (B) oxygen (C) carbon dioxide (D) hydrogen.

Ans.: (A) nitrogen

7. Wind does not help in the movement of which of the following?

- (A) Firki (B) Weather cock (C) Ceiling fan (D) Sailing yacht.

Ans. : (C) Ceiling fan

8. Ground water is a

- (A) Renewable resource (B) Non-renewable resource
(C) Exhaustible resource (D) Inexhaustible resource

Ans.: (A) Renewable resource

9. The percentage of total drinking water available on earth is:

- (A) 0.3% (B) 15% (C) 25% (D) 45%

Ans.: (A) 0.3%

10. The process of collecting rainwater is called:

- (A) Rainwater collecting (B) Rainwater recharging



(C) Rainwater harvesting

(D) Rainwater replenishing

Ans. : (C) Rainwater harvesting

11. The ratio of hydrogen and oxygen in water is

(A) 2 : 1

(B) 1 : 2

(C) 1 : 1

(D) none of these

Ans.: (A) 2 : 1

12. The most impure water is:

(A) rain water

(B) river water

(C) sea water

(D) none of these

Ans. : (C) sea water

13. Which of the following is a source of soft water

(A) Sea water

(B) Well water

(C) River water

(D) Rain water

Ans. : (D) Rain water

14. Out of these which source of energy used in photosynthesis?

(A) Coal

(B) Petrol

(C) Wood

(D) Sunlight

Ans. : (D) Sunlight

15. Which of the following is a disadvantage of using solar power?

(A) It is expensive to produce.

(B) It is not reliable in all weather conditions.

(C) It emits pollutants.

(D) It requires a large amount of land.

Ans. : (B) It is not reliable in all weather conditions.

16. Solar energy is harnessed using:

(A) solar cells

(B) turbines

(C) dams

(D) geothermal wells.

Ans.: (A) solar cells

17. An example of fossil fuel is

(A) paper

(B) wood

(C) plastic

(D) coal

Ans. : (D) coal

18. Which gas is produced, when coal burns in air?

(A) Oxygen

(B) Hydrogen

(C) Carbon dioxide

(D) Nitrogen

Ans. : (C) Carbon dioxide

19. Full form of L.P.G is

(A) Liquefied Petroleum Gas

(B) Liquid Petrol Gas

(C) Light Petroleum Gas

(D) None of the above.

Ans.: (A) Liquefied Petroleum Gas

20. Which one of the following is a role of forests?

- (A) Provide food, shelter, water and medicines
- (B) Prevent soil erosion
- (C) Prevent flood
- (D) All of the above

Ans. : (D) All of the above

21. Which of the following statements is incorrect?

- (A) All living beings require air to breathe.
- (B) We can feel air but we cannot see it.
- (C) Moving air makes it possible to fly a kite.
- (D) Air is present everywhere but not in soil.

Ans. : (D) Air is present everywhere but not in soil.

22. What is not true about air?

- (A) It makes the windmill rotate.
- (B) It helps in the movements of aeroplanes.
- (C) Birds can fly due to presence of air.
- (D) It has no role in water cycle.

Ans. : (D) It has no role in water cycle.

*** Fill In The Blanks With Correct Alternative.**

[10]

23. Waste from homes and industries pollute _____

Ans. : Water resources

24. Windmills use the energy of winds to generate _____

Ans. : Electricity

25. _____ is not fit for domestic, agriculture and industrial use.

Ans. : Saline water

26. Water offered to the Sun early in the morning as an _____ to the Sun.

Ans. : Expression of gratitude

27. Due to _____, the forest cover has been decreasing.

Ans. : Cutting of trees

28. _____ are natural agents that help in turning and loosening the soil?

Ans. : Earthworms

29. Human beings have been using _____ to make tools such as _____

Ans. : Rocks, Hand axes

30. Coal, wood and dung cakes were used as _____

Ans. : Fuels for cooking

31. When fossil fuels are burnt _____ and _____ are produced.

Ans. : Smoke and carbon dioxide gas

32. Water covers about _____ of the Earth's surface.

Ans. : Two-thirds

*** State Whether The Sentences Are True Or False.[1 Marks Each]**

[12]

33. Nature has all the resources to meet human needs.

Ans. : true

34. Machines are a resource found in nature.

Ans. : False

Correct Statement: Machines are human-major resources.

35. Natural gas is a non-renewable resource.

Ans. : true

36. Air is a renewable resource.

Ans. : true

37. Our body needs nitrogen to perform its functions.

Ans. : False

38. The air which surrounds the Earth is a mixture of gases.

Ans. : True

39. 21 per cent part of air is occupied by oxygen.

Ans. : True

40. Saline water fit for agriculture use.

Ans. : False

41. We use heat and light from the moon for various purposes.

Ans. : False

42. In ancient times, India had a tradition of respecting, protecting and preserving forests.

Ans. : True

43. Arrow heads is not a rock tool.

Ans. : False

44. Petroleum is a fossil fuel.

Ans. : True

* Answer The Following Questions In One Sentence.[1 Marks Each]

[30]

45. What is wind?

Ans. : Wind is the movement of air caused by the uneven heating of the earth by the sun.

46. What will happen if the amount of oxygen is increased in the air?

Ans. : Air will become more combustible and many substances may undergo fast oxidation.

47. Name the substances which are present in traces in air. What are these together called?

Ans. : Xenon (Xe), Krypton (Kr), Neon (Ne) and Helium (He) are present in traces in the air. These together form 0.02% of air and are called inert gases.

48. How will you prove that air is a mixture of several gases and not a compound?

Ans. : The following points show that air is a mixture :

- (1) The composition of air varies slightly from place to place.
- (2) Different components of air are separable by physical processes.
- (3) Different components of air exhibit their characteristics, for example, O_2 in air supports combustion, CO_2 in air turns lime water milky.

49. What are the properties of air?

- Ans. :
- (1) Air occupies space.
 - (2) Air is present everywhere around us.
 - (3) Air has no colour and one can see through it.
 - (4) It is transparent.

50. What is atmosphere?

Ans. : Our earth is surrounded by a thin layer of air. This layer is called atmosphere. It extends up to many kilometres above the surface of the earth.

51. The mountaineers carry oxygen cylinder with them while climbing high mountains. Why?

Ans. : The availability of air decreases gradually as we go up in the atmosphere.

52. Name the gases present in air. Which one of them is most abundant?

Ans. : N_2 , O_2 , Ar (argon), CO_2 , water vapour, neon (Ne), helium (He), krypton (Kr), xenon (Xe) are present in air. Nitrogen is most abundant.

53. Write the sources of water on the earth.

Ans. : Oceans, Rivers, Springs, Tubewells, Rain water, etc.

54. In which forms, water exists on the earth?



Ans. : Water exists on the earth in all three physical forms : Ice, water and water vapour.

55. Why is ocean water not suitable for domestic use?

Ans. : Sea and ocean water contains large amounts of various salts. It is due to these salts the ocean water is salty and cannot be used for drinking, washing and for irrigation purposes.

56. Name the main source of energy on Earth.

Ans. : Sun

57. What is the ultimate source of energy for all living organisms?

Ans. : Sun is the ultimate source of energy for all living organisms.

58. Explain Van-Mahotsav.

Ans. : Van-Mahotsav is a week-long event celebrated across the country during the month of July. It is a forest festival during which new plants and trees are planted and awareness about respecting forests is raised.

59. How does the forest floor look like?

Ans. : The forest floor looks dark- coloured and is covered with a layer of dead and decaying leaves, fruits, seeds, twigs and small herbs. The decaying matter is moist and warm. Walking over the dead leaf layer on the forest floor is like walking over a spongy carpet.

60. What is the importance of dense bushes and tall grasses for animals living in the forest?

Ans. : The dense bushes and the tall grasses provide the food and shelter to the animals. They also protect them from carnivores that live in the forest.

61. What is soil?

Ans. : Soil is made up of small pieces of broken rock and decaying plants.

62. What are crumbs?

Ans. : The ploughed field may have big pieces of soil called crumbs.

63. Write some useful tools used in ploughing and levelling.

Ans. : Wooden plough, iron plough, and soil plank.

64. What is rock?

Ans. : Any natural mass of mineral matter that makes up the earth's crust is called a rock.

65. What is the full form of LPG?

Ans. : Liquefied petroleum gas.

66. Name the petroleum product which is commonly used for electric generators.

Ans. : Diesel is used as a fuel for electric generators.

67. Name the fuel which is used in jet aircraft engines.

Ans. : Kerosene is used as fuel in jet aircraft engines.

68. Name the petroleum product used to drive heavy vehicles.

Ans. : Diesel is used as a fuel for heavy motor vehicles and electric generators.

69. What is the full form of CNG?

Ans. : Compressed Natural Gas.

70. What is a non-renewable Resource?

Ans. : Natural resources that are limited in quantity are referred to as non-renewable resources. These resources cannot be supplied or regenerated in a short duration of time. These resources cannot be reused.

71. Which are the most commonly used renewable energy sources?

Ans. : Solar energy, wind energy, hydropower, tidal energy, and geothermal energy are some of the important sources of renewable energy.

72. What are the two types of energy consumed by human civilisation?

Ans. : Energy sources can be divided into renewable energy sources and non-renewable energy sources.

73. What is resource?

Ans. : Resource is a source of supply that is kept in reserve in order to be converted into something more valuable – and helpful.

74. What are the two types of natural resources?

Ans. : Renewable and non-renewable natural resources are the two types of natural resources.

*** Answer The Following Questions In Short.[2 Marks Each]**

[40]

75. Explain the following observations very briefly.

(a) A firki does not rotate in a closed area.

(b) The arrow of weather cock points towards a particular direction at a particular moment.

(c) An empty glass in fact is not empty.

(d) Breathing through mouth may harm you.

Ans. : (a) Lack of air movement

(b) Shows the latest direction of the wind.

(c) Even the so called empty glass is not in fact empty. It is filled with air.

(d) You may inhale dust if present in air which may prove harmful.

76. What is meant by conservation of water? Suggest three methods to conserve water.



Ans. : Careful and economical use of water and avoiding its wastage is called conservation of water:

- (1) Use only the limited quantity of water.
- (2) To conserve water, we should plant more and more trees.
- (3) By collecting rainwater in tanks, ponds or by constructing check dams.

77. What are forests?

Ans. : Forests are large areas with dense growth of various types of plants (herbs, shrubs and trees). Forests are a natural home for many wild animals, including birds and insects. Forests provide food and shelter to them.

78. Why should we worry about the conditions and issues related to forests far from us?

Ans. : We should worry about the conditions and issues related to forests even far from us because forests play an important role for the sustenance of life on earth. The following points illustrate the importance of forests for us :

- (1) Forests help in maintaining the ratio of oxygen and carbon dioxide in air.
- (2) Forests provide habitat to a wide variety of plants and animals.
- (3) Forests provide firewood, timber, medicines, fruits, rubber, gum, resins, honey, bee-wax, paper and many other products.
- (4) Forests reduce the speed of flowing water and help in controlling floods.

79. Explain how animals dwelling in the forest help it grow and regenerate.

Ans. : We can see a bunch of seedlings sprouting in a decaying heap of animal droppings especially in rainy seasons. These seedlings are the herbs and shrubs. The animals also disperse the seeds of certain plants and help the forest to grow and regenerate. The decaying animal dung also provides nutrients to the seedlings to grow.

80. Explain how forests prevent floods.

Ans. : Raindrops in a forest do not hit the ground directly. The uppermost layer of the forest canopy intercepts the raindrops, and most of the water comes down up to soil through the branches and the stems of the trees. From the leaves it drops slowly over the branches of the shrubs and herbs. Also forest trees have extensive deep roots that absorb and store rain water. Thus forests act as a natural absorber of rainwater and allows it to seep and therefore help in controlling floods.

81. What is meant by a renewable energy source?

Ans. : A renewable energy source is an energy source that inflicts no adverse effects on nature. They are abundant in nature and are extremely sustainable. These sources are replenished naturally and are predominantly eco-friendly.

82. List out four resources you use in your home and four you used in your classroom

Ans. : The list of four resources which we use in our home are:

- (1) Television
- (2) Water
- (3) Furniture
- (4) Utensils

The list of four resources that we use in our classroom are:

- (1) Book
- (2) Chalk
- (3) Blackboard
- (4) Water

83. What will happen if the Sun is not visible for a few days ?

1. We may have to depend on artificial lighting during day time also.
2. _____
3. _____

Ans. : (2). With no sunlight, photosynthesis would stop, but that would only kill some of the plants—there are some larger trees that can survive for decades without it.

(3). There will be no natural light and heat hence stopping many natural phenomena like evaporation, transpiration, condensation etc.

84. What are the consequences of cutting a large forest area? Make a presentation or do a role play, or write a story or a poem that shows what could happen if we continue to cut down trees in our forests.

Ans. : The loss of trees and other vegetation can cause climate change, desertification, soil erosion, flooding, increased greenhouse gases in the atmosphere, and a lot of problems for humans Presentation/Play/Story or Poem: Do it yourself.

85. Classify the following as renewable or non-renewable resources— coal, natural gas, forests and minerals.

Ans. :

Renewable	Non-renewable
-	Coal
-	Natural gas
Forests	-
-	Minerals

86. Why do we say that petroleum is a non-renewable resource?

Ans. : Petroleum is considered a non-renewable resource because it takes millions of years to form from the remains of microorganisms and plants that get buried deep inside the Earth. Once extracted and used, it cannot be replenished.

87. It is difficult to regrow forests. Justify this statement.

Ans. : Regrowing forests is difficult because it takes many years for trees to mature. Additionally, the soil may become degraded, losing its nutrients and structure due to deforestation, making it less suitable for new plant growth. Human activities such as urban development and agriculture can also ' hinder reforestation efforts.

88. List four activities that are possible due to the presence of air.

Ans. : Four activities that are possible due to presence of air

- (i) Breathing
- (ii) Generating electricity through wind turbines
- (iii) Transportation through aeroplanes.
- (iv) Flying kites

89. How can you contribute towards enhancing the green cover of your locality? Make a list of actions to be taken.

Ans. : List of actions to be taken

- (i) Encourage neighbours to grow plants in their gardens.
- (ii) Collaborate with local schools to create green initiatives.
- (iii) Advocate for the protection of existing trees and green spaces.
- (iv) Participate in community tree planting drives.
- (v) Plant trees in local parks and open spaces.

90. In the given illustration, we see that food is being cooked.



Answer the following questions:

- (i) What type of energy is being used for cooking?
- (ii) Name one benefit and one drawback of using this type of energy for cooking.

Ans. : (i) Solar Energy

(ii) Benefit: Solar energy is a renewable and clean source of energy. Hence it is environment friendly.

Drawback: Dependence on Weather: Solar energy cannot be used during cloudy days or at night, which limits its reliability and convenience.

91. Cutting down trees on a large scale impacts the quality of the soil. Why do you think it is so?

Ans. : Without trees, the soil can be washed away by rain, leading to the loss of fertile topsoil. Furthermore, fallen leaves from trees decompose and add organic matter to the soil, enhancing its fertility and structure. Cutting down trees impacts



the quality of soil because tree roots help to bind the soil together, preventing erosion.

92. Explain two ways in which human activities pollute the air. Propose one action which can help in reducing air pollution.

Ans. : (i) Deforestation reduces the number of trees that can absorb carbon dioxide, increasing the concentration of greenhouse gases.

(ii) Burning fossil fuels in vehicles and factories releases harmful pollutants like carbon monoxide and sulphur dioxide into the air.

Action to reduce air pollution: Promote the use of public transport and electric vehicles to decrease the number of fossil fuel-powered vehicles on the road.

93. A family uses solar panels to generate electricity, a gas stove to cook food and a windmill for pumping water from a well. What would happen if there were no sunlight for a week?

Ans. : If there were no sunlight for a week, the solar panels would not be able to generate electricity, leading the family to rely on alternative sources of power. Additionally, the growth of plants would be affected due to the lack of sunlight for photosynthesis.

94. There is an increasing demand of trees to meet the requirements of industries and for housing. Therefore, trees are being felled. Is it justified? Discuss and prepare a brief report.

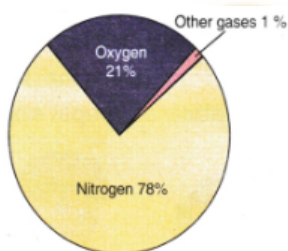
Ans. : Trees play a crucial role in maintaining ecological balance by providing oxygen, supporting wildlife, and preventing soil erosion. Large scale deforestation can lead to loss of biodiversity, climate change, and disruption of water cycles. Sustainable practices such as using alternative materials, implementing stricter regulations on tree felling, and promoting reforestation can help balance economic development with environmental conservation.

* Answer The Following Questions In Brief.

[30]

95. Describe the composition of air.

Ans. : Air contains mostly nitrogen (78%) and oxygen (21%). The remaining 1% (by volume) is shared by argon (0.34%), carbon dioxide (0.33%), other noble gases, oxides of nitrogen and sulphur etc., in the decreasing order



96. Why is atmosphere called the place where exchange of gases in nature occurs?

Ans. : We know that various gases are found in air. Now some organisms live on land, some in water and some deep under the soil. But all need oxygen to respire. The terrestrial organisms take oxygen from the atmosphere. You know that during respiration by living beings and burning of materials, carbon dioxide is produced along with some other gases. Also CO_2 is used by the plants in the process of photosynthesis in which oxygen is released. All gases go into the atmosphere. Thus, it is a place in nature for gaseous exchange.



97. Mention two main functions of water for living organisms.

Ans. : (1) Water is essential for the germination of seeds, growth of plants and in photosynthesis.

(2) Water is used for the transportation of people and goods



98. What is rainwater harvesting? Describe the method of rainwater harvesting.

Ans. : Rainwater harvesting is the collection of rainwater and storing for future use. In this system rainwater is collected from the rooftops by means of pipes into storage tank for later use. Recycling water and water harvesting also help in saving water.

Methods of Rainwater Harvesting:

(1) Rooftop rainwater harvesting. In this system, the rainwater from the rooftop is collected in a storage tank, through pipes.

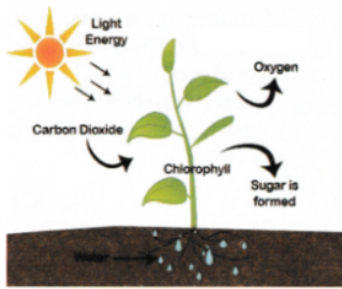
(2) Another method, a big pit is dug near house for collecting rainwater. This pit is filled with different layers of bricks, coarse gravels and sand or granite pieces.



99. What is photosynthesis?

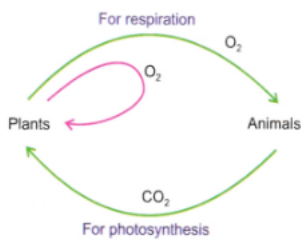


Ans. : “The process, by which green plants make their own food from carbon dioxide (CO₂) and water (H₂O) in the presence of sunlight and green pigment (chlorophyll) is called Photosynthesis.”






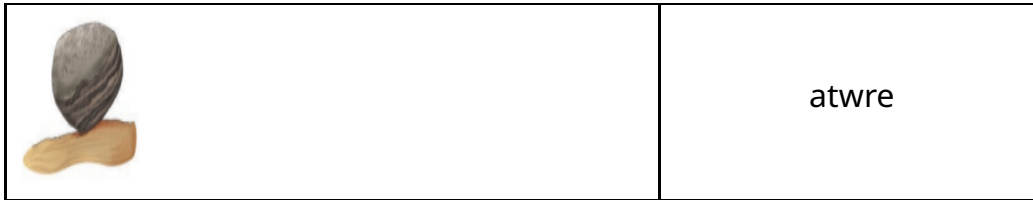
100. Explain the role of forest in maintaining the balance between oxygen and carbon dioxide in the atmosphere.

Ans. : Plants release oxygen as a by product during the process of photosynthesis. This oxygen is inhaled by animals for respiration. This respiration process releases carbon dioxide which is used again by plants during photosynthesis. In this way, use and consumption of oxygen and carbon dioxide goes on. Thus, they maintain the balance of oxygen and carbon dioxide in the atmosphere.







101. Figure shows items related to natural resources. Match them with their jumbled up names. Make another table and write the names of these resources. Classify these resources as renewable or non-renewable.

Item	Jumbled up name
	ocrk
	refost
	ndiw



Ans. :

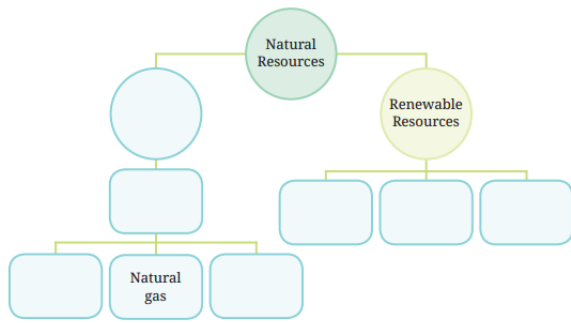
Item	Jumbled up name	Name	Resources	Renewable or Non-renewable Resource
	ocrk	Rock	Minerals	Non-renewable
	refost	Forest	Forest	Renewable
	ndiw	Wind	Atmosphere	Renewable
	atwre	Water	River, Pond	Renewable

102. Make a list of five daily activities in which you use natural resources. Suggest ways by which you can reduce their use.

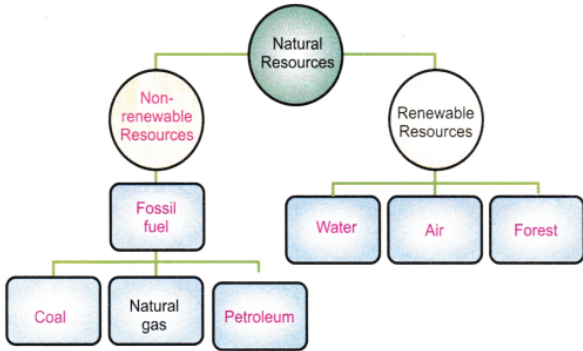
Ans. :

Daily Activity	Natural Resource Used	Ways to Reduce use
1. Cooking	Natural gas	Use solar cookers
2. Drinking water	Water	Use a water-efficient faucet
3. Using paper	Trees (forests)	Use digital documents
4. Using electricity	Coal, natural gas	Use energy-efficient appliances
5. Driving a car	Petroleum	Use public transport or cycle

103. Fill up the blanks using the following terms— [fossil fuels, forest, air, petroleum, coal, water and non-renewable resource)



Ans. :



104. Propose a plan to use less water in your school. What steps would you take to make this plan happen and how would it help the environment?

Ans. : Plan to Use Less Water

- Use grey water for gardening purposes.
- Implement a rainwater harvesting system.
- Install water-efficient faucets and toilets.

Steps to Implement the Plan

- Monitor water usage regularly and set reduction targets.
- Encourage student-led initiatives for water conservation.
- Collaborate with local authorities and experts to install water saving devices.

Environmental Benefits

- Promotes sustainability and responsible water usage within the community.
- Decreases the energy used in water treatment and distribution.

* Match the following.

[10]

105.	Column I	Column II	Column III
	Activity	How is water wasted?	Suggest ways to reduce wastage of water.
	Hand washing		
	Washing clothes		
	Washing utensils		
	Taking shower		
	Cooking		

Ans. :

Column I	Column II	Column III
Activity	How is water wasted?	Suggest ways to reduce wastage of water.
1. Hand washing	Washing your hands or face with the water running uses about 4 litres of water which cause wastage of water.	Turning the water off saves 3 litres, using only 1 litre each time you wash up, saves water.
2. Washing clothes	Clothes are bleached, dyed with hard chemicals in water makes the leftover chemical filled which causes the water wastage.	Skipping the extra use and re- rise of towels can reduce the wastage of water.
3. Washing utensils	When washing dishes by hand, the water run while rinsing can cause water wastage.	Fill the sink with soap and water and block the faucet, this will reduce water wastage.
4. Taking shower	Taking shower for longer duration can cause water wastage.	Taking shower for limited time- period reduce water wastage.
5. Cooking	Washing vegetables and fruits for cooking in excessive amount cause water wastage.	Steaming the vegetables and fruits reduce the wastage of water.
6. Gardening	Over watering not only cause water wastage but also harm the garden.	Using of drip irrigation method can reduce the water wastage.
7. Brushing teeth	Keeping the tap opened while brushing teeth cause water wastage.	Turn off the tap while brushing teeth reduce the water wastage.

Column A	Column B
106. Moving air	A. Water harvesting
107. Saving water	B. Soil
108. Sunlight	C. Breath
109. Disintegration	D. Rock
110. Oxygen	E. Wind
	F. Source of energy

Ans. :

Column A	Column B
1. Moving air	E. Wind
2. Saving water	A. Water harvesting

3. Sunlight	D. Source of energy
4. Disintegration	B. Soil
5. Oxygen	C. Breath

