

## Very Short Answer Questions

**Q.1. What is the best way to 'manage waste'?**

**Ans.** Management of waste is best through the 3R's strategy—reduce, reuse, recycle.

**Q.2. What do you understand by 'composting'?**

**Ans.** The rotting and conversion of some materials into manure is called composting.

**Q.3. Identify the materials that can be added to a compost pit from the following list.**

*green leaves, dried leaves, broken toys, pieces of dried stalks of plants, plastic bottles, husk, pieces of newspaper, cardboard, cooked dal, soda bottle*

**Ans.** Green leaves, dried leaves, pieces of dried stalks of plants, husk, pieces of newspaper and cardboard can be added to the compost pit.

**Q.4. What is papier-mâché?**

**Ans.** Papier-mâché is a paste made of clay and paper in which some rice husk is also mixed.

**Q.5. What is a landfill?**

**Ans.** A landfill is a low-lying open area in which biodegradable waste is deposited.

**Q.6. Define composting.**

**Ans.** Composting is defined as a method of decomposing organic waste in the presence of bacteria and fungi.

**Q.7. What do the 3R's stand for?**

**Ans.** The 3R's stand for reduce, reuse and recycle.

**Q.8. What is vermicomposting?**

**Ans.** The method of preparing compost with the help of red worms is called vermicomposting.

## Short Answer Questions

**Q.1. To what use can you put the following kinds of garbage and how?**

- i. Rotting smelly garbage
- ii. Dry leaves collected in a garbage
- iii. Old newspapers

*[NCERT Exemplar]*

**Ans.**

- i. Convert into compost.
- ii. Use as manure.
- iii. Recycle to make paper bags or paper pulp for handicrafts.

**Q.2. Beera, a farmer would clear his field everyday, and burn dry leaves fallen on the ground. After sometime he found that those living in huts near his field were suffering from cough and breathing problems.**

- i. Can you explain why?
- ii. Also suggest an environment friendly way to dispose the dry leaves.

*[NCERT Exemplar]*

**Ans.**

- i. Fumes and gases from burning materials cause cough and breathing problems.
- ii. Dry leaves can be used for making manure.

**Q.3. The municipality collects garbage in two types of bins—blue and green. Why?**

**Ans.** The blue bin is for materials that can be used again—such as plastics, metals and glass. The green bins are for collecting kitchen and other plant or animal wastes.

**Q.4. Which one is better—burning heaps of dried leaves or converting them into compost?**

**Ans.** Converting the heaps of dried leaves into compost is better than burning them because burning of leaves produces smoke and gases that are harmful to health. Converting the leaves into compost will not produce any pollution and will also enrich the soil.

**Q.5. How do redworms convert the waste into compost in a compost pit?**

**Ans.** Redworms do not have teeth. They have a structure called ‘gizzard’, which helps them in grinding their food. The redworms eat the waste material, which is ground in the gizzard. The ground material is then excreted out of its body and is called compost.

**Q.6. Why should recycled plastics not be used for storing eatables?**

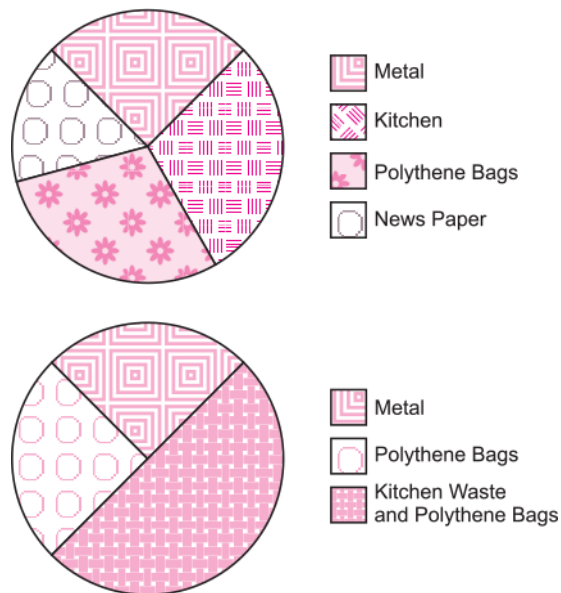
**Ans.** Some shopkeepers use plastic bags that have been used earlier for some other purpose. Sometimes bags collected by rag pickers are also used after washing them. Using such bags and containers for storing eatables can be harmful.

**Q.7. Why should the waste produced be managed?**

**Ans.** Waste that is not managed can cause health and social problems.

- i. Improperly disposed food waste attracts disease carriers like pests, pigs and flies which can spread diseases and can cause health problems.
- ii. Inappropriate disposal of chemicals, pesticides and other wastes can contaminate water and land.

**Q.8. The pie charts shown in figure below are based on waste segregation method adopted by two families X and Y respectively.**



**Which of the two families X or Y do you think is more environmentally conscious and why?** *[NCERT Exemplar]*

**Ans.** X is more environmentally conscious because the kitchen waste and polythene bags are disposed off separately. They separate biodegradable waste and non-biodegradable wastes, which are processed separately.

**Q.9. What happens when.** *[NCERT Exemplar]*

**Q. cooking medium is made to flow down a drain?**

Ans. Clog pores in soil and may block pipes.

**Q. insecticides, motor oil, paints are poured down the drain?**

Ans. Kill useful microbes which help purify water.

**Q. tea leaves, cotton swabs and old soft toys are thrown into the drain?**

Ans. Choke the drains.

**Q.10. Provide the suitable term that expresses the meaning of each of the following statements.** *[NCERT Exemplar]*

**Q. Greeting cards made from newspaper.**

Ans. Recycling

**Q. Contents of the waste bins.**

Ans. Garbage

**Q. Worms converting certain kinds of waste into manure.**

Ans. Vermicomposting

**Q. An area where a lot of garbage is collected, spread out and covered with soil.**

Ans. Landfill

**Q.11. Write three ill-effects of plastics.**

Ans.

- i. Burning plastics cause emission of poisonous gas.
- ii. Plastic waste is eaten by animals resulting in their death.
- iii. Plastics choke sewer system.

**Q.12. Write two hazards of waste accumulation.**

Ans.

- i. They are a source of bad odour.
- ii. They cause land pollution.

**Q.13. Write two precautions that need to be taken while making a vermicompost.**

Ans.

- i. The pit should be about 3 feet deep.
- ii. The waste should be loosely packed with little moisture.

**Q.14. Why is recycling considered an efficient method of disposing off wastes?**

**Ans.** By recycling, non-biodegradable materials are diverted from landfills and incinerators, preventing soil and air pollution.

**Q.15. Explain the term ‘source reduction’ with respect to management and disposal of waste.**

**Ans.** Source reduction means techniques which reduce the waste generated. For example, reduction in waste by composting.

**Q.16. How can you reduce the use of plastics?**

**Ans.**

- i. Use paper or cloth bags in place of plastic bags.
- ii. Educate friends and family members about harmful effects of plastics.
- iii. Avoid buying frozen foods which are preserved in plastic packing.

## Long Answer Questions

**Q.1. Distinguish between biodegradable and non-biodegradable wastes.**

**Ans.**

S. No.	Biodegradable wastes	Non-biodegradable wastes
1	These are wastes which can be broken down to harmless or non-poisonous substances by the action of microorganisms.	These are wastes which cannot be broken down to harmless or nonpoisonous substances by the action of micro-organisms.
2	These wastes undergo rotting.	These wastes do not undergo rotting or take a very long time for rotting
3	<b>Example:</b> domestic sewage, newspapers and vegetable matter.	<b>Example:</b> polythene bags, plastics, glass, aluminium cans, iron nails and DDT.

**Q.2. Given below are steps in vermicomposting and each step has been given an alphabet. Rearrange the steps in the correct sequence and write the alphabets on the chart provided. One step is done for you.**

- F – Dig a pit in a suitable place in your garden.
- C – Spread sand on the floor of the pit.
- E – Add vegetable peels and fruits waste in the pit.
- A – Sprinkle water to keep it moist.
- D – Place red worms in the pit.
- B – Cover with a gunny bag or grass.

**Step 1 – F**

- 2 –
- 3 –
- 4 –
- 5 –
- 6 –

*[NCERT Exemplar]*

Ans. Step 1 – F, 2 – C, 3 – E, 4 – B, 5 – A, 6 – D

**Q.3. Recently, a ban on plastic bags has been imposed in many places? Is the ban justified? Give reasons in three sentences.** *[NCERT Exemplar]*

**Ans.** Yes, the ban on plastic bags is justified. These plastic bags are not disposed-off properly. They are usually found scattered either on roadsides or in drains.

During rainy season, these plastic bags clog the drains and the water overflows on the road. These plastic bags, since they are non-biodegradable, cause a havoc.

**Q.4. Why should we not burn plastic items?**

[NCERT Exemplar]

**Ans.** Plastic items should not be burnt because of the following reasons:

- i. They do not burn easily.
- ii. The burnt pieces may be eaten by cows and choke them.
- iii. The gases emanated prove to be a health hazard for humans.
- iv. The ashes left on burning are toxic.
- v. Adds to soil pollution. (Any other)

**Q.5. What are domestic wastes? Give some examples.**

**Ans.** Domestic wastes are the wastes produced from the households by the daily activities. Example:

- i. Kitchen wastes—vegetables, fruits and others.
- ii. Human excreta.
- iii. Garbage—newspapers, rags, etc.
- iv. Plastic bags.

**Q.6. Answer the following questions in one or two words or sentences.**

[NCERT

Exemplar]

**Q. Why should we prefer to use paper bags rather than polythene bags?**

**Ans.** Paper can be recycled, polythene bags do not degrade. Polythene bags are difficult to dispose off and get accumulated causing harmful effects.

**Q. Who, out of the following should properly dispose off the garbage—father, mother, elder brother, younger sister?**

**Ans.** Every member should dispose off the garbage. It is the responsibility of everyone to be environmentally conscious.

**Q. Which one out of beetles, roundworms and earthworms are used for vermicomposting and why?**

**Ans.** Earthworms are used for vermicomposting. They convert waste from plants and animals or their product into compost.

**Q.7. What can we do to minimise overuse of plastics and deal with garbage?**

**Ans.** Overuse of plastics can be minimised by following the steps given below:

- i. Reduce the use of plastic bags.

- ii. Carry a cloth or a jute bag whenever going out for shopping.
- iii. Do not use plastic bags to store eatables.
- iv. Use vermicomposting at home and deal with kitchen waste usefully.
- v. Recycle paper.
- vi. Make family, friends and others aware of the harmful effects of plastic.

**Q.8. Why are plastics harmful?**

**Ans.**

- i. All kinds of plastics give out harmful gases, upon heating or burning. These gases may cause many health problems, including cancer, in humans.
- ii. Stray animals, while looking for food in the garbage thrown in plastic bags, end up swallowing them. Sometimes, they die due to this.
- iii. The plastic bags thrown away carelessly on roads and other places get into drains and the sewer system. As a result, drains get choked and the water spills on the roads. During heavy rains, it might even create a flood like situation.

**Q.9. What are 3R's ? How should we adopt them ? Explain.**

**Ans.** The 3R's are:

- a. Reduce the production of wastes.
- b. Reuse the wastes.
- c. Recycle the wastes.

**a. Reduce**

- i. We should avoid plastic bags and carry our own cloth bags while going for shopping.
- ii. We should avoid using disposable plastic and paper items.
- iii. We should take only what we can consume during taking meals.
- iv. We should use both sides of a paper.
- v. We should use paper products made from recycled paper.

**b. Reuse**

- i. We should reuse plastic items like bags, bottles, cups, etc.
- ii. We should reuse empty glass bottles as containers for storing things.
- iii. We should reuse old cloth, jute or paper bags instead of using new plastic bags.
- iv. We should donate instead of throwing away clothes, etc. We should donate them, as these items can be reused.

**c. Recycle**

- i. Old newspapers can be recycled to make tissue paper and cardboard.
- ii. Organic waste (from plant/food sources) can be allowed to rot and manure can be prepared.
- iii. Recycling of glass, plastics, aluminium cans and other metals should be encouraged to produce useful products.



## **HOTS (Higher Order Thinking Skills)**

**Q.1. Why do rag-pickers always seem to suffer from some disease or the other?**

**Ans.** Rag-pickers come across different sorts of wastes. While they are collecting rags they are subjected to chemical poisons, infectious materials and hazardous materials discarded as wastes. Since they are always malnourished they tend to suffer from diseases like tuberculosis and cancer, retarded growth and anaemia.

**Q.2. Some things can be recycled while some cannot. Why should we not throw away anything that can be recycled?**

**Ans.** Recycling things can reduce the amount of garbage produced. Therefore, recyclable things should not be thrown away.

**Q.3. What would happen if waste material is not collected from the waste material bins for many days?**

**Ans.**

- i. A toxic odour will develop in the surroundings.
- ii. Large number of mosquitoes and pests will begin to settle.
- iii. Many diseases will spread.
- iv. The air gets polluted.
- v. Unhygienic conditions will develop.

**Q.4. Why is an earthworm called a farmer's friend?**

**Ans.** Earthworm helps in converting biodegradable wastes into compost which is very fertile for soil.

**Q.5. Can a junk dealer be called the environment's friend? Give reasons to support your answer.**

**Ans.** Yes, because he collects all the junk and deposits it for recycling. This way he helps in preventing waste accumulation in environment.