

## 13. Waste and Its Management

### Exercise Questions

#### 1. Question

Which technique is suitable for the bio-medical waste disposal?

- A. Landfill
- B. Incineration
- C. Recycling
- D. Disposal in water

#### Answer

The main purpose of bio-medical waste disposal is to reduce waste hazards. Incineration is a process in waste is treated by burning at high temperature. It is the best method as it reduces the volume of the waste as well as destroys pathogens.

#### 2. Question

Recycling is best for which of the following types of waste?

- A. Metallic waste
- B. Medical waste
- C. Agricultural waste
- D. Household waste

#### Answer

Recycling is best for metallic waste because many metals when recycled uses less energy without emission of harmful gases. It can be reshaped numerous times. By recycling, we can preserve resources and it also reduces pollution.

#### 3. Question

Which of the following element is greenhouse gas?

- A. Hydrogen
- B. Carbon Monoxide
- C. Carbon dioxide

D. Sulphur dioxide

**Answer**

Carbon dioxide gas present in the atmosphere allows the heat rays of sun to pass through it and reach the Earth but doesn't allow the inside heat to go out. Due to the presence of carbon dioxide layer, our atmosphere acts as a glass roof of the ordinary greenhouse and allows the sun's heat rays to be trapped within the earth's atmosphere.

**4. Question**

The average garbage released per person in big cities of India is:

- A. 1 to 2 kg
- B. 1 to 3 kg
- C. 2 to 7 kg
- D. 4 to 6 kg

**Answer**

Average garbage released per person in big cities varies from 4 to 6 Kg. It depends on lifestyle or the size of the city.

**5. Question**

Bio manure can be prepared by:

- A. From domestic waste
- B. Agriculture waste
- C. From both
- D. None of the above

**Answer**

Manure is basically prepared using cow dung, crop residue and other farm waste. The peel of fruits and vegetable, left-over cooked food is also used for the preparation of manure.

**6. Question**

How bio gas is prepared?

**Answer**

Bio gas is prepared by the decomposition of organic matter such as agricultural waste, cow dung, manure, sewage, food waste etc. in the absence of oxygen. Methane is the main constituent of bio gas.

## **7. Question**

What is a waste?

### **Answer**

Waste can be any material which loses its utility after the process is completed. It can be cardboard cartons, paper wrappers, plastic containers, tin, peels of vegetables and fruits, left-over cooked food, plastic bottles and containers, broken plastic toys etc. These things are discarded and are thrown as thrown away as garbage.

## **8. Question**

Write names of greenhouse gases.

### **Answer**

Greenhouse gas is the gas which traps the sun's heat energy in the atmosphere and radiates the heat in all direction. Greenhouse gas leads to an increase in the temperature of the Earth. Greenhouse gases in earth's atmosphere are water vapor, carbon dioxide, methane, nitrous oxide and ozone.

## **9. Question**

What is vermicompost?

### **Answer**

The method of making compost from kitchens wastes by using redworms is called vermicomposting. The compost made by using redworms is called vermicompost. Vermicompost is a very high-quality manure. It is the best way to turn kitchen garbage into compost.

## **10. Question**

Which disease takes place on blockage of drains in cities?

### **Answer**

Blocked drain can cause a lot of damage to our health and property. If blocked drains are not treated properly, they can cause a bad smell. Moreover, the stagnant water becomes a place for breeding of mosquitoes and other insects. It will also make the area prone to bacteria. It can cause diarrhea, nausea, typhoid, fever and abdominal cramps.

## **11. Question**

Explain waste management.

### **Answer**

Waste management means disposal of garbage. The garbage is managed to avoid its adverse effect on the environment. Waste management includes

collection, transportation, and disposal of garbage, sewage and other waste products. Waste management normally deals with all types of waste such as an industrial, biological, household.

## 12. Question

What do you mean by solid waste?

### Answer

Solid waste is an unwanted substance such as garbage or refuses generated from large industries and factories sludge from various waste treatment plants. Solid waste can be solid, liquid, semi-solid or even gaseous.

## 13. Question

Write the difference between biodegradable and non-biodegradable waste.

### Answer

Biodegradable waste	Non-biodegradable waste
The part of garbage which can decompose in nature to form a harmless substance is called Biodegradable waste.	The part of garbage which cannot decompose in nature is called non-biodegradable waste.
They are safe for the environment.	They are harmful to the environment and create pollution.
e.g. fruit and vegetable peels, left-over food, leaves, paper, cotton, jute etc.	e.g. plastic, glass, synthetic cloth, aluminium foil and metal object etc.

## 14. Question

What do you mean by landfill?

### Answer

A landfill site is also known as a garbage dump or dumping ground is the site for

the disposal of waste garbage. It is the oldest form of waste material management.

## 15. Question

What do you mean by the recycling process?

### Answer

Recycling is a process by which we convert the waste material into something useful. The recyclable material is collected, sorted and then sent to the respective industries for processing. Many things such as newspapers, steel cans, detergent bottles etc. are manufactured from these recyclable products.

## 16. Question

What is the use of incineration method?

### Answer

Incineration is a process in waste is treated by burning at high temperature. The incinerator is the main alternative to landfill as during incineration waste volume and mass reduces to much extent which also reduces the land area for dumping the incinerated waste. By burning this waste infectious diseases are killed. The process is known as a thermal treatment. It provides energy to run turbines.

## 17. Question

Describe the type of wastes.

### Answer

There are two types of wastes:

**Biodegradable waste-** The waste which can decompose in nature to form harmless substances is called biodegradable waste. All the garbage from plants such as fruits and vegetable peels, leaves, paper, jute, cotton etc. and from animals such as wool, silk, leather and cow dung etc. Biodegradable garbage is also known as organic waste.

**Non-biodegradable waste** – The waste which does not decompose in nature is called non-biodegradable waste. The garbage which consists of plastics, glass and metal objects is non-biodegradable. Getting rid of non-biodegradable part of garbage is a problem because it does not decay when buried and some of it gives poisonous gases when burned.

## 18. Question

Write notes on waste management.

### Answer

Waste management means disposal of garbage. The garbage is managed so as to avoid its adverse effect on the environment. Waste management includes collection, transportation and disposal of garbage, sewage and other waste products.

### **Some methods of waste management are:**

**1. Composting:** The process of converting plant and animal waste material into manure by rotting is called composting.

**2. Incineration:** The main purpose of bio-medical waste disposal is to reduce waste hazards. Incineration is a process in waste is treated by burning at high temperature. It is the best method as it reduces the volume of the waste as well as destroys pathogens.

**3. Recycling:** Recycling means that we should collect and separate the used and discarded items made of paper, plastics, glass and metal objects.

**4. Chemical reaction:** Many products can be chemically destroyed and then reused in some other manner.

**5. Landfill:** Landfill is a low-lying area of ground where the garbage collected from the city is dumped.

## **19. Question**

Write an essay on the sources of waste.

### **Answer**

Everything we use in this world produces garbage. There are many sources of garbage such as household sources, municipal sources, industrial and mining operation, agricultural waste and biomedical waste.

**1. Household sources-**The waste released from houses like food scraps, plastics, paper, metals, cloths. A lot of water is also released as a waste from the house. It forms the largest proportion of municipal sources.

**2. Municipal sources-** It consists of household waste, sanitation residue, waste from streets. So basically it is a collection of waste from the entire city.

**3. Industry and mining work-** This waste is considered the most hazardous waste as they contain a toxic substance. It can be corrosive or highly inflammable.

**4. Agriculture:** Agriculture waste includes both organic and inorganic waste. It describes the waste produced from various farming activities. This waste starts decomposing biologically which further cause pollution.

**5. Medical areas:** It is usually infectious waste that may include waste like medicines, chemical waste, syringes, human excreta. They can be a serious threat to human health if not treated scientifically.

## **20. Question**

Make a list of wastes from your surroundings and classify them.

### **Answer**

Almost every activity in this world results in waste. Most of the solid waste comprises of daily use items that are found in every household. For proper waste management, it is necessary to classify the waste.

**Wet waste:** Vegetable peels, fruit peels, leftover food, used tea bags, rotten egg, leaves.

**Dry waste:** Tissue papers, razor blades, plastic bottles, broken toys, paper, cloth pieces.

**Hazardous waste:** Expired medicines, tube light, used cooking oil, used bottles of deodorants.

**Sanitary waste:** Diapers, used cotton and bandages, sanitary pads, syringes.

## **21. Question**

What will you do in your locality or in your village for the management of waste?

## **Answer**

As our population is increasing day by day and a lot of waste is generated by this growing population. Due to this India is among the top 10 countries generating the highest amount of municipal solid waste. If we don't take any step we will have to face a lot problem in the future. So, the need of the hour is to take steps for the management of waste.

1. Using cloth bags instead of plastic bags.
2. Reading the news online instead of having a newspaper.
3. Used newspaper, magazines and notebooks etc. should be sent for recycling.
4. We should dispose of our kitchen garbage by vermicomposting
5. We should recycle plastics whenever possible.
6. Durable containers can be reused numerous times.
7. We should give old clothes and books to others who can use them.