



WASTE MANAGEMENT



Points to Remember:

- ♣ Things which are no longer of any use to us are called **wastes**.
- ♣ Waste to one person may not necessarily be a waste to another.
- ♣ Wastes could be as small as a used pen or refill to as large as an old vehicle.
- ♣ Depending on the origin there are different **types of wastes**.
- ♣ The first step of waste management is **collection** of wastes from all the various places of its origin.
- ♣ There are different **categories for classifying** waste.
- ♣ Based on the different categories, wastes are **segregated**.
- ♣ Wastes when left unnoticed can cause serious **health hazards**.

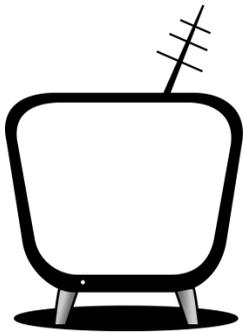
Let's Take





Questions

Q1. Identify the source of waste:



(a)



(b)



(c)



(d)



(e)

Q2. Classify the given waste into different categories:

a. Vegetable peel



b. Cow- dung



c. aerosol cans





d. Expired medicines

e. plastic bottle



Q3. Answer the following:

- A. Define waste. Name the various sources of waste.
- B. How are wastes classified? Why is it important to classify wastes?
- C. Write a note on e- waste?
- D. Write a note on health hazards associated with improper management of waste.





Answers:

Q1. Identify the source of waste:

Answers:

- a) Domestic b) Agricultural c) Industrial d) Clinical e) Nuclear

Q2. Classify the given waste into different categories:

Answers:

Waste	Sources	Form	Amt. of moisture	Effects	Degradability
Vegetable peel	Domestic	solid	wet	Non-hazardous	Biodegradable
Cow dung	Agricultural animal	solid	wet	Non-hazardous	biodegradable
Aerosol can	Domestic Industrial agricultural	solid	dry	Hazardous	Non degradable
Expired medicine	Biomedical	solid	dry	Hazardous	Non degradable
Plastic bottle	domestic	solid	dry	Non-hazardous	Non-degradable

Q3. Answer the following:

A: Things which are no longer of any use to us are called waste. This waste could be as small as a used pen to large as an old vehicle. Wastes to one person may not necessarily be a waste to another.

The various sources from where wastes are generated are:

- a) Domestic waste- The wastes generated in our homes during various activities are called domestic wastes.





Ex: waste papers, old newspaper, tins, broken glass, stationery, cloth pieces and rags, sewage, vegetable waste, cleaning chemicals etc.

- b) Industrial waste- various industrial processes generate a lot of wastes.

Ex: metals, packaging containers, liquid waste like waste water, chemicals, various gaseous waste generated from the burning of coal etc.

- c) Clinical or Bio-medical waste- the waste from the hospitals, nursing homes, pathological laboratories, medical clinics etc.

Ex: needles, bottles, syringes, tubes, gloves, leftover medicines, anatomical wastes like removed body parts etc.



- d) Agricultural waste- agricultural activities generate a lot of waste.

Ex: the residue of plant products like stalks, dried grass, wet leaves, husk, the residue of chemical fertilizers and insecticides etc.

- e) Animal waste- this includes animal waste products associated with agriculture and wastes from slaughterhouses.

Ex: animal dung, excreta of other animals, various body parts of animals.

- f) Nuclear waste- this include waste products of nuclear power plants. Utmost care has to be taken while handling this type of waste.

Ex: radioactive metals and minerals.

- g) Mineral waste- includes heavy metal residues found around mines.

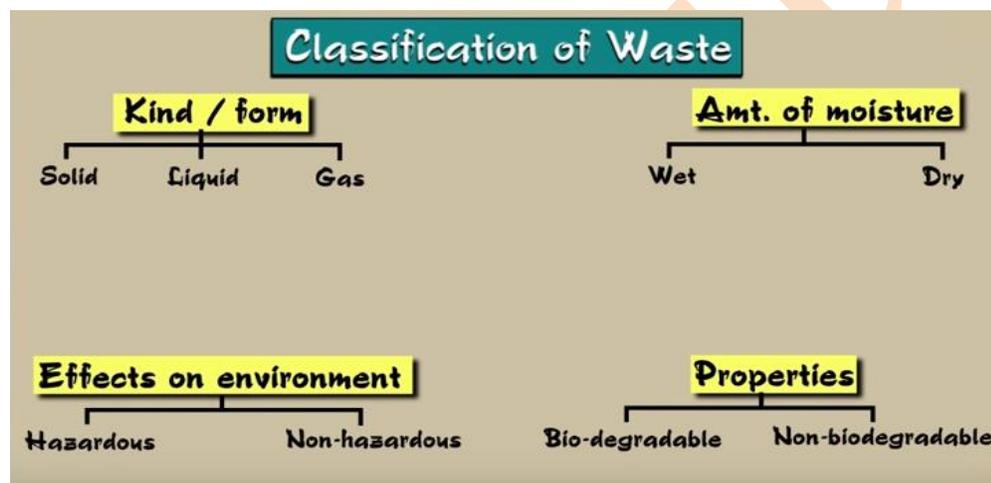
Ex: metal residues of lead, arsenic, cadmium etc.





B: wastes can be classified into different types depending on the following:

- a) According to the form or kind of waste generated wastes are classified as:
 1. Solid- solid wastes can be easily seen and it is generated from different types of activities like construction, industries, mining, offices, factories, domestic use.
 2. Liquid- The wastewater from our homes and the liquid chemical effluents from various industries are liquid wastes.
 3. Gas – gaseous waste include the poisonous gases coming out from various industries.



- b) On the basis of the amount of moisture present wastes are of two types:
 1. Dry waste
 2. Wet waste
- c) According to their effect on human health and environment wastes are of two types:
 1. Hazardous Waste- Hazardous wastes are those wastes that could be toxic and harmful to humans, animals, and plants as well. These wastes may catch fire very easily (flammable), very reactive, corrosive or explosive. These wastes can be from the hospital, industrial or even domestic in origin.
 2. Non-hazardous wastes- are the ones which do not have any harmful effect on our environment or life on earth. These are municipal and household waste, obtained from street sweeping, construction work etc.





d) According to their properties, wastes are classified as:

1. Biodegradable- Wastes that are organic, the one which could be easily broken down by the action of microorganisms over the time are called biodegradable wastes.
2. Non- degradable- non-degradable wastes are the ones which cannot be broken down by microorganisms and will remain on the earth for years until we properly manage them.

Classification of wastes is important as it helps in segregating the wastes into different categories and this would further help in their proper disposal.

C. An old television set and similar products like computers, VCRs, stereos, fax machines fall under a special category of waste called E-waste or (WEEE) i.e. Waste Electronic or Electrical Equipment.

It is the name given for electronic products, nearing the end of their 'useful live'.

These wastes contain many compounds like CFCs, heavy metals like chromium, lead, mercury etc thus, leaving a hazardous effect on our health and environment.

But many of these equipment could be reused or refurbished.

D. When left uncared, these wastes accumulate and cause serious health hazards:

Some of the solid wastes start decomposing because of their property of biodegradability. Thus giving rise to the growth of pathogenic bacteria, fungi, viruses etc. Flies, rodents, insects live on these wastes and carry germs of various diseases.

Plastic degrades very slowly, which is why it is such a big problem; moreover, many aquatic animals like whales, seal, and turtles die every year from plastic bag litter as they often mistake plastic bags for their food.

Plastics from the dumping sites and ultimately leading to their death.

Apart from causing these health hazards, they even add to different types of pollution like air, water, soil etc.

