

State University of Bangladesh



Class Test Exam on

Solid Waste Management

Submitted By:

Name: Md. Mahabub Hasan

ID: PG05-57-22-017

Batch: 57

Email: mahabub1625@gmail.com

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Submitted To:

Name: Md. Zahidul Islam

Email: zahidul.env@sub.edu.bd

zahidulju42@gmail.com

Lecturer, SUB

Answer question-01 Definition of hazardous waste:

A hazardous waste is a waste with properties that make it dangerous & capable of having a harmful effect on human health.

a hazardous waste is a waste with properties that make it dangerous or capable of having a harmful effect on human health or the environment.

Answer question-01 characteristics of hazardous waste:

There are four basic characteristics **ignitability, corrosivity, reactivity, and toxicity, Ignitability.**

Reducing, reusing, recycling and recovering remind us of the importance of reducing our waste production on a daily basis and thus avoiding our contribution to the piles of materials found on landfill sites.

When shipping hazardous wastes, having a hazardous waste profile with all shipments is necessary. In Maintaining Your Waste Stream Profiles, we began to discuss what goes into the creation of a profile as well maintaining them. A necessary part of completing waste profiles is understanding what a hazardous waste.

Ignitability: Liquids with a flash point—the lowest temperature at which fumes above waste ignite—of 60 degrees Celsius or 140 degrees Fahrenheit.

Solids that spontaneously combust.

Oxidizers and compressed gasses.

Corrosivity: Corrosive substances have the ability to eat through containers which can cause leakage of harmful materials. A corrosive liquid has a pH of less than or equal to 2 or greater than or equal to 12.5, or has the ability to corrode steel. Some examples of corrosive materials include hydrochloric acid and nitric acid.

Reactivity: Reactive wastes can be very dangerous given their instability. There are too many conditions and situations to identify every type of reactive material so the EPA uses the following guidelines to assist generators in identifying them:

Unstable, and routinely experiences violent change without detonating

Potential for explosive mixture or violent reaction when combined with water

Toxic gasses are released when mixed with water

Toxicity: Our groundwater can be in great danger when poisonous materials pose a threat. The toxic materials can have long term effects on human health and the environment.

Unlike the first three characteristic groups which the EPA views as having an immediate threat and are fairly easily identified, there are 60 contaminants on the toxicity characteristic list and they are solely identified through a test method called Toxicity Characteristic Leaching Procedure (TCLP).

Answer Question 02 Manage hazardous waste briefly.

Chemical treatment – e.g. neutralization, precipitation, ion exchange, reduction, or oxidation.

Thermal treatment – e.g. incineration.

Biological treatment – e.g. landfarming; and.

Physical treatment – e.g. solidification, flotation, sedimentation, evaporation, or filtration.

Use a reusable bottle/cup for beverages on-the-go

Use reusable grocery bags, and not just for groceries

Purchase wisely and recycle

Compost it.

Avoid single-use food and drink containers and utensils

Buy secondhand items and donate used goods.

1: Reduce. Make less waste in the first place!

2: Reuse

3: Recycle

4: Compost

5: Burn trash to make energy

6: Throw it away in a landfill

7: Burn without making energy

No single step can solve our waste disposal problems.

Reusable bags and containers.

Reuse water bottles, coffee mugs, and plates too.

Skip on individually wrapped items, specifically food in snack packs or single-serving containers.

Start composting in the kitchen and yard.

Pay your bills online.

Go paperless in the kitchen too.

Recycle more.

Prevention, Reuse, Recycle, Recovery and Disposal. Prevention is the least harmful to the environment and disposal is the last resort with the most impact on the environment.