

## Question no 1

What is solid waste (and solid waste management)? Discuss the main issues of solid waste management in our country. (2022)

**Answer:**

**Solid Waste:** Solid waste includes solids or semisolids, non-soluble materials including gases and liquids in containers such as ~~arg~~ agricultural refuse, demolition waste, industrial waste, mining residues, municipal garbage, and sewage sludge.

**Solid Waste Management:** There is an urgent need to manage municipal solid waste from the time it is created to its safe disposal.

**Main problems regarding solid waste management in Pakistan are:**

- (1) There is no proper waste collection system.
- (2) Waste is dumped on the streets.
- (3) Different types of waste are not collected separately.
- (4) There are no controlled sanitary landfill sites.

(5) Citizens are not aware of the relationship between ways of disposing of wastes and the resulting environmental and public health problems.

## Question # 2

Differentiate between sanitary and industrial landfills, also describe the land selection criteria for landfill. (2016)

### Landfills:

A system of trash and garbage disposal in which the waste is buried between layers of earth.

### Sanitary landfills

(01) Sanitary landfills are used for the disposal of waste from homes and roads

### Industrial landfills

Industrial landfills are used for the disposal of industrial waste and effluent particularly.

(02)

From sanitary landfill, methane is extracted.

Industrial landfills also work as 'material reusable facilities' in which reusable items are extracted and sold.

In sanitary landfills pipelines are constructed to extract landfill gases.

No pipeline connections are used in industrial landfills.

## Land Selection Criteria for landfills:

(01)

The area and volume of the land should be sufficient enough to contain waste for several years.

(02)

The landfill site should not be in close vicinity of the population.

(03)

They should not be close to water bodies like dams, because of the potential risk of contamination that is hazardous to aquatic life.

(04)

No major power transmission or other infrastructure like sewers, and water supply line should be crossing through the landfill developmental area.

(05)

The landfill site should be near

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the waste recycling site facility, if not  
the waste recycling facility should be  
planned as an integral part of the  
landfill site.

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