

Fest:02

General Science & Ability

CSS-2025

Qno:01

(Part: d)

SWM:

Abbreviations-

SWM is the abbreviation of "Solid Waste Management".

Definitions-

"Solid waste management is a technique/process/system in which waste (combustible, biodegradable, e-waste etc) is reused, reduced, recycled, restore or dumped in."

SWM Process-

SWM process is a mixture of different steps that is taken in order to manage



solid waste.

It has mainly three stages:-

- 1- → Collecting stage
- 2- → Recovery stage
- 3- → waste Disposal stage

### 1st Collecting stage-

|| This is the stage at which waste is collected by:-

→ Crew

→ Different machinery.

#### Crews-

It is the staff that collects waste like municipal committee etc.

#### Machinerys-

It is the technique or machinery that helps to manage waste.

### 2nd Recovery stage-

|| This is the stage at which all the waste is distinguished into categories like

→ e-waste waste

→ biodegradable waste

→ Burnable waste etc

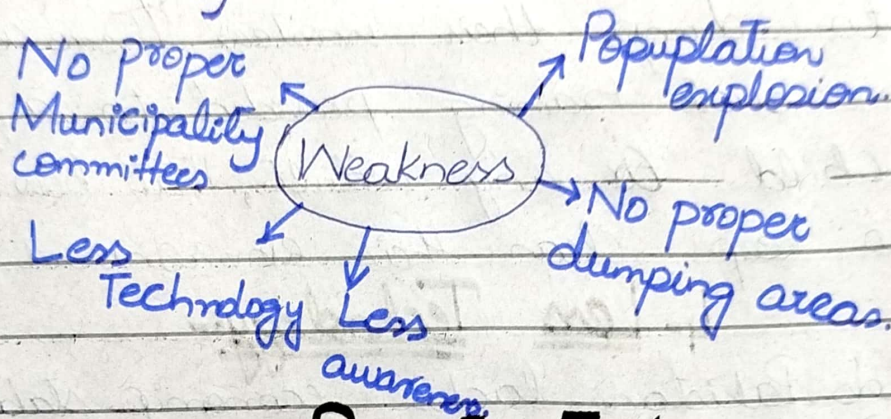
### 3rd Waste Disposal stage-

|| This is the final stage in which waste is decomposed, dumped



burnt, pressurized or may be recycled through  
→ combustion → incineration  
→ open-dumping etc.

## Weaknesses in the SWM of Pakistan:



### 1. Population Explosion:

Nowadays, Pakistan is facing the problem of population. There are many areas that are overpopulated and that cause the problem is waste management. Because it becomes difficult for administration to handle such population.

### 2. No Proper Dumping Areas:

There are no such proper dumping areas that leads to more pollution. In other countries there are proper 3-4 dustbins



for different types of waste but here there is no such kind of dustbins.

### 3. Less Awareness-

People have less knowledge of how the waste is bad for their health and how they had to dump their wastes. There are no such training provided to a child or any adult, that how to keep clean their environment.

### 4. Less Technology-

As Pakistan lacks economic stability Pakistan cannot afford advanced technology based products and as a result it lacks system of solid waste management. It still uses old techniques to dump waste.

### 5. Weak Municipal Committees-

Pakistan lacks in the proper administration of for environment cleanliness and safety. In some districts there are some people and committees that works on it but still it had lot more to do.



Part: c

## Smog:

### Definitions-

"Smog is the combination of smoke and fog in an environment which is dangerous for health. It is pale in color."

### Causes of Smog-

- Causes of smog-
- Industrial activities.
  - Climate change.
  - Agri-sector chemicals.
  - Combustion of fossil fuels.
  - Emission from vehicles.

### Industrial Activities-

Industrial activities releases lots of smoke and harmful gas that pollutes the atmosphere that causes smog.

### Climate Changes

Weather Patterns results in creating smog. Due to climate change, there is global warming.



that results in such type of hazardous.

## Agri-Sector Chemicals

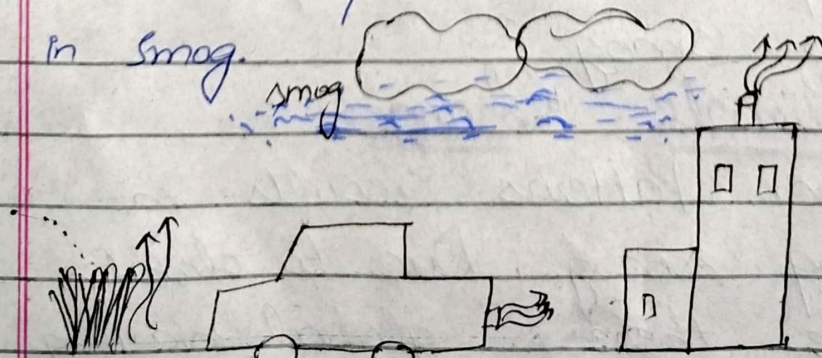
Use of different kind of fertilizers in the agriculture field results in smog. Nitrogen and carbon cycle can be also disturbed.

## Combustion of Fossil Fuels

This is one of the major cause of smog. When fossil fuels like coal is burnt it results in the release of harmful gases like  $\text{NO}_x$ ,  $\text{SO}_x$  that mixes with atmosphere and cause smog.

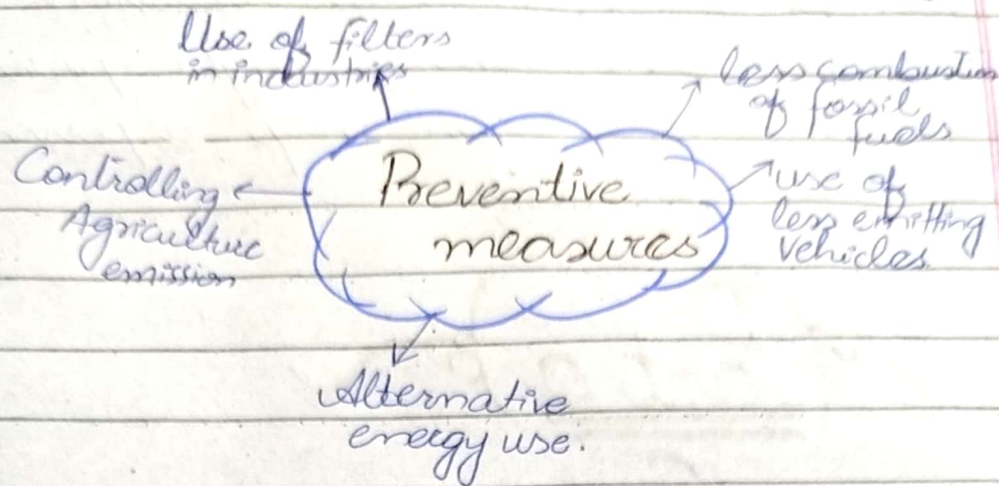
## Emission from vehicles

With the increase in the advancement of technology and increase population there is high need of vehicles and that results into the release of hazardous gases like  $\text{NO}_x$ . They mixes with atmosphere and that results in smog.





# Preventive Measures to Smog



- Reduce no. of vehicles and promote public transport.
- Use scrubbers, filters in the industries
- Shift industries to renewable energy sources like wind and solar.
- Plant more trees.
- Use systems to detect high pollution level.
- Compost and avoid high burning residues.
- Use weather forecast and warn about smog.

## Conclusions-

Smog is indeed a great hazard for a person's health. It can



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from many resources like combustion of fossil fuels or industrial activities. But, taking right preventive measures can help a person to save himself.

## Part a)

### Cell:-

Cell is the basic unit of life. It helps to perform major functions of our life.

### Cytoplasm:-

#### Structure:-

It is a gel-like substance that fills the interior of a cell.

#### Functions:-

- Support and shape
- Metabolic Activities
- Transport.

### Plastids:-

#### Structure:-

Plastids are double-membraned



organelles found in plant cells and  
some protists.

Types-

- Chloroplast
- Chromoplast
- Leucoplast.