

### Question-1 (c)

#### Smog:

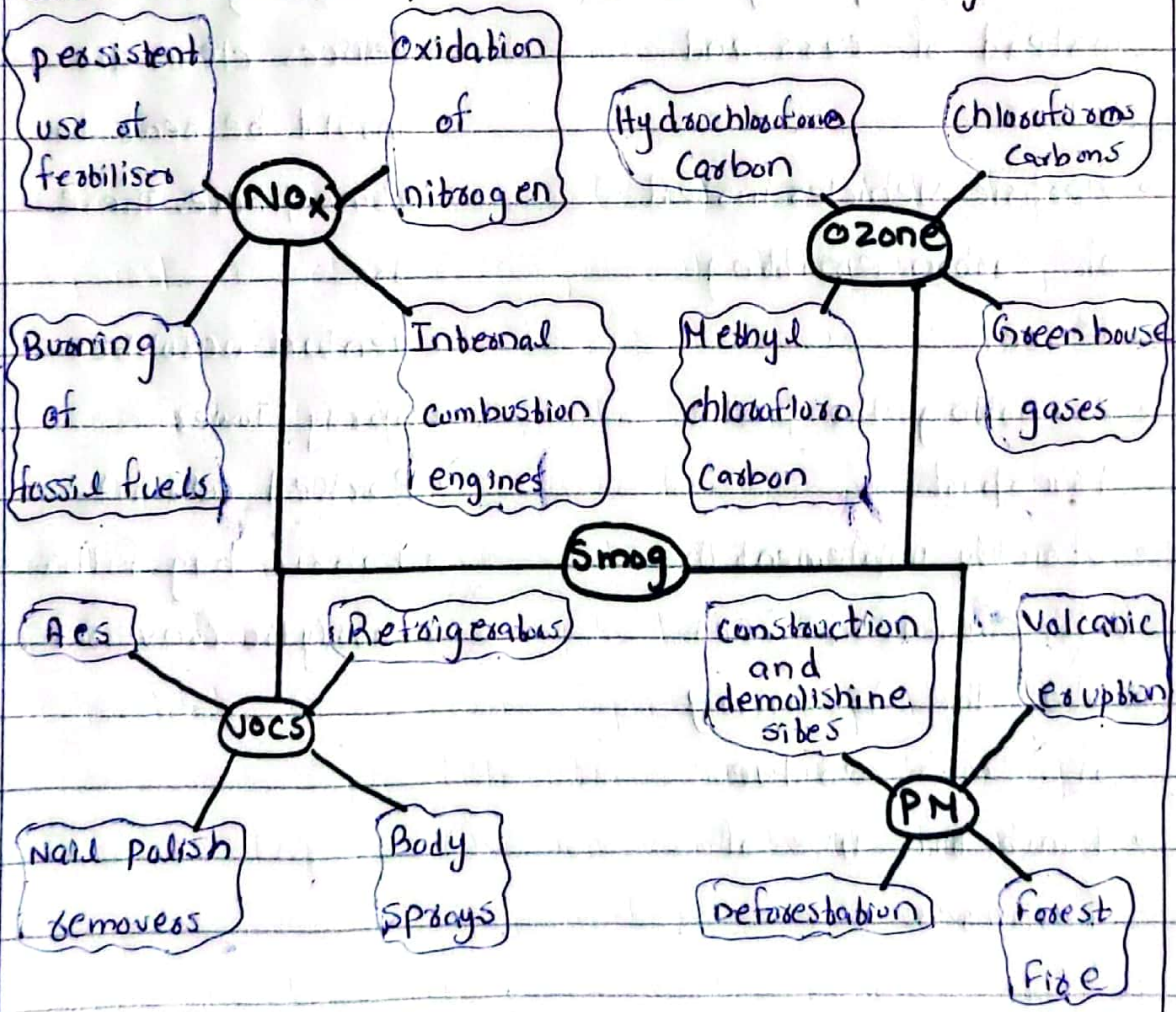
"when pollutants pollute the air and the polluted air combine with foggy condition then smog is formed"

#### Composition of smog:

Smog consists pollutants such as ozone, NOx, VOCs and particulate matter.

#### Causes of smog:

Since smog consist of different pollutants so the causes of these pollutants leads to smog.





## Preventive measures to Combat Smog:

By taking the following steps, smog can be lessened in its intensity.

### Preventive Measures

#### At source

- utilization of renewable energy resources
- Afforestation, reforestation and forest recovery.
- Promoting cycling instead of cars and bikes.
- Electric vehicles instead of carbon emitting devices.
- Promoting the public transport
- Strictly implement the vehicle emission laws.
- Stop the burning of crop residue
- Limit the use of fertiliser.

#### Scientific

In industry, green house gases emit which pollute the atmosphere. By installing these devices clean air should be sent to atmosphere. These are

- Venturi Scrubber
- Spray Tower
- Packed column
- Fabric bag filter
- Catalytic converter





## Question # 1 (D)

### Solid Waste Management:

"The process of managing the solid waste from collection to dumping is called the solid waste management."

### Methods of Solid Waste Management:

These are different methods of solid waste management.

These are

- **Source Reduction:**

In this technique, the source of the waste should be reduced to lessen the waste.

- **Reuse:**

In this technique, major waste is reused in the different processes to lessen the waste like the plastic waste or glass bottles.

- **Recycle:**

In this technique, recycle the waste to gain maximum benefit from it.

- **Volume Reduction:**

In this technique, the volume of waste is reduced by different methods.

- **Landfill:**

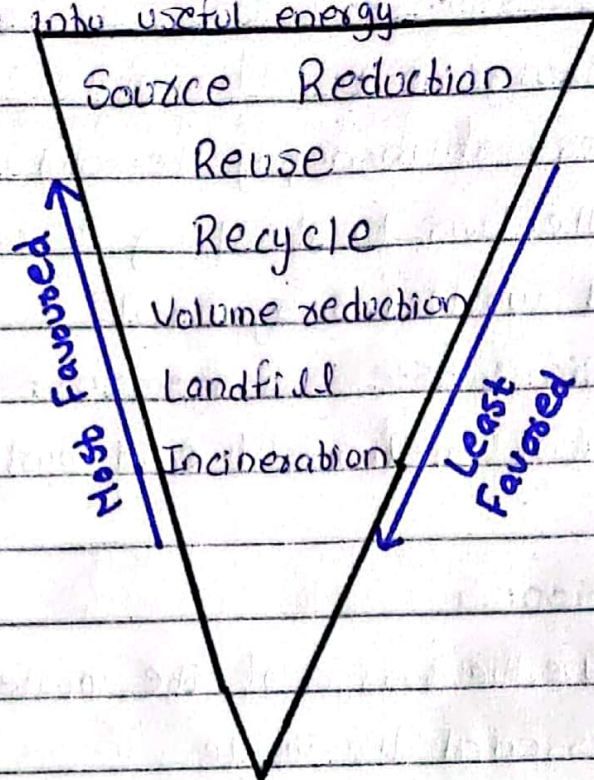
In this technique, waste is dumped inside the surface of earth.

- **Incineration:**

In this technique, a scientific method is used to convert



the waste into useful energy.



### Weaknesses in SWM in Pakistan:

In Pakistan, the SWM is not much effective due to these reasons.

- More focused on incineration.
- Open dumping instead of landfill.
- Not giving enough attention to source reduction.
- Inefficient policies of government.
- Limited Technical Assistance.
- Less financial budget.
- Recycling projects are not build in the country.



## Question # 2 (c)

### Renewable Energy Resources:

"The resources which does not produce the green house gases and their replenishing power is high"

### RE<sub>R</sub> Reduces Environmental Cost:

By using the RE<sub>R</sub>, the environmental cost would be reduced.

#### • Less Green House Gas Emissions:

The RE<sub>R</sub> emits less green house gases which are the main component of global warming. So the cost to counter global warming will be less.

#### • Climate change Problems will be less:

Due to ~~non~~ renewable energy resources the climate change problems will be less as less amount spend on climate change problems.

#### • Less Production of Water dams:

Due to renewable energy resources, the floods will be less. So, the need to build new dams will be less. Hence, the environmental cost will be less.



**More Imports due to less effects on Agriculture:**

with (0.5 - 2°C) rise in temperature due to global warming, the agriculture productivity will reduce by (2-10%). So, renewable energy resources have positive impact on agriculture which increases the imports. Less cost spend on agriculture uplifting.

- **No need to build new forests less the** <sub>cost</sub>

**Environment cost:**

To combat environmental impacts, more forests are need of the hour. This increases the cost. But due to renewable resources, the need to build new forests will be less and the environment cost will also less.

- **High cost of Electricity generation will be less:**

The coal fire power plants produce electricity at a very high cost. But the renewable resources produce the electricity at a very less cost. This reduces the environmental cost.



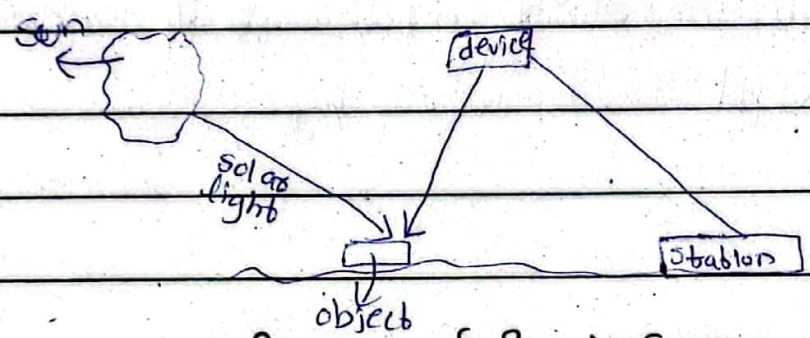
### Question # 2 (D)

#### Remote Sensing:

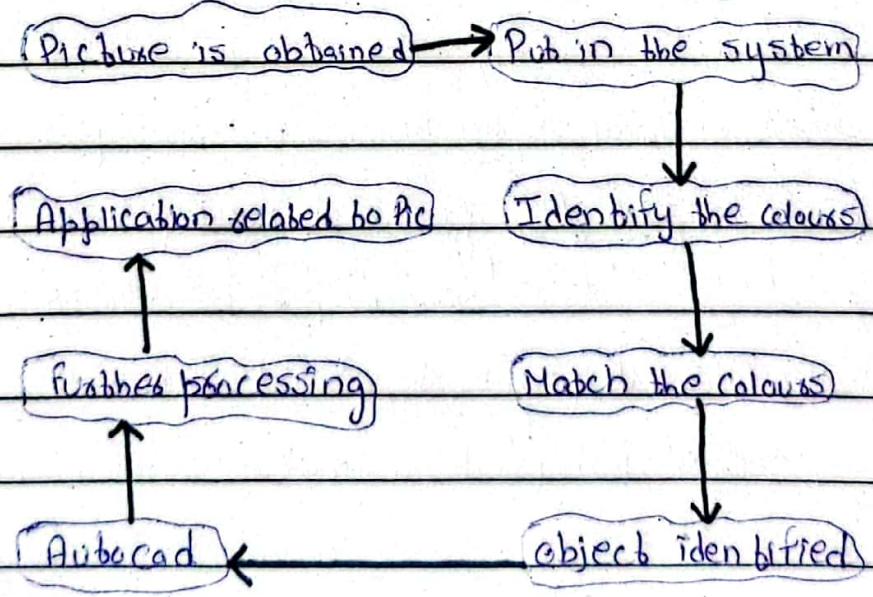
"The collection of data of far away area without physical contact is called the remote sensing"

#### Process of Remote Sensing:

The light of sun falls on the object and the device collect the ~~pro~~ properties and also take image of object. Then it is send to computer for further processing.



∴ Process of Remote Sensing





## Application of Remote Sensing:

These are vast applications of remote sensing which includes the

- Environment impact assessment: Case study of Sabiwal coal Power plant.
- Population density.
- Social welfare activities
- checking the impact of Nuclear test on specific area.
- checking the impact of hazardous substances on environment of specific area.

