



Q.1) Define Remote Sensing. Also define its types and basic components as working principle.

Answer

Remote Sensing

"A sensor and satellite based technology for data collection, is known as remote sensing."

Remote Sensing is a process of collection of data of any area or geographic location. In fact, it works with the help of sensor. Therefore, remote sensing is a technology of data collection.

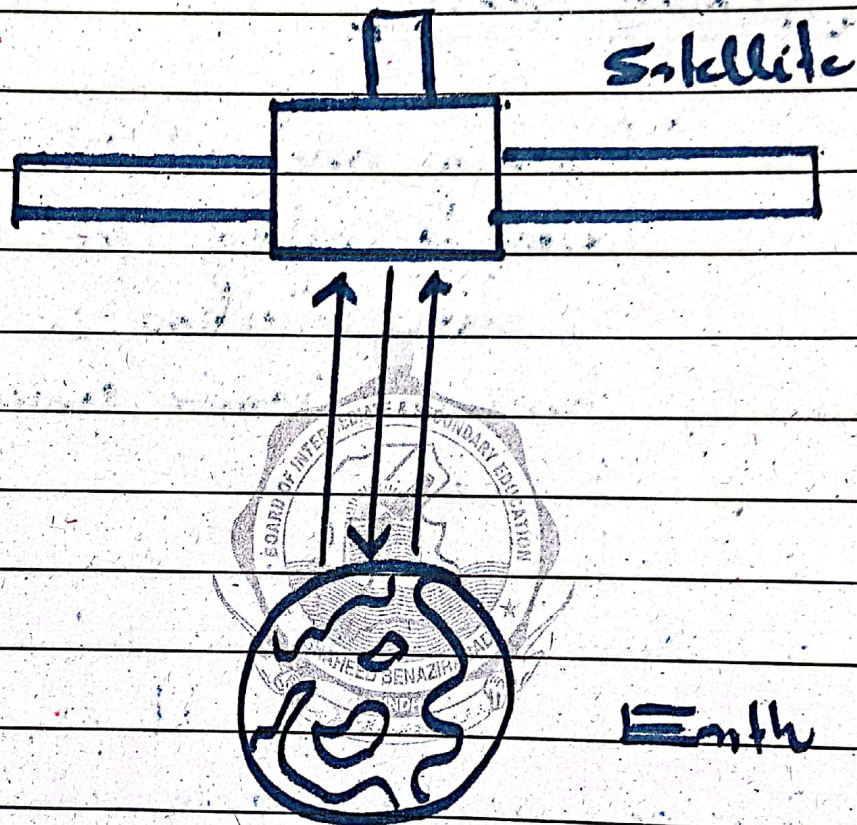
Types of Remote Sensing

Following are two main types:

a) Active Remote Sensing



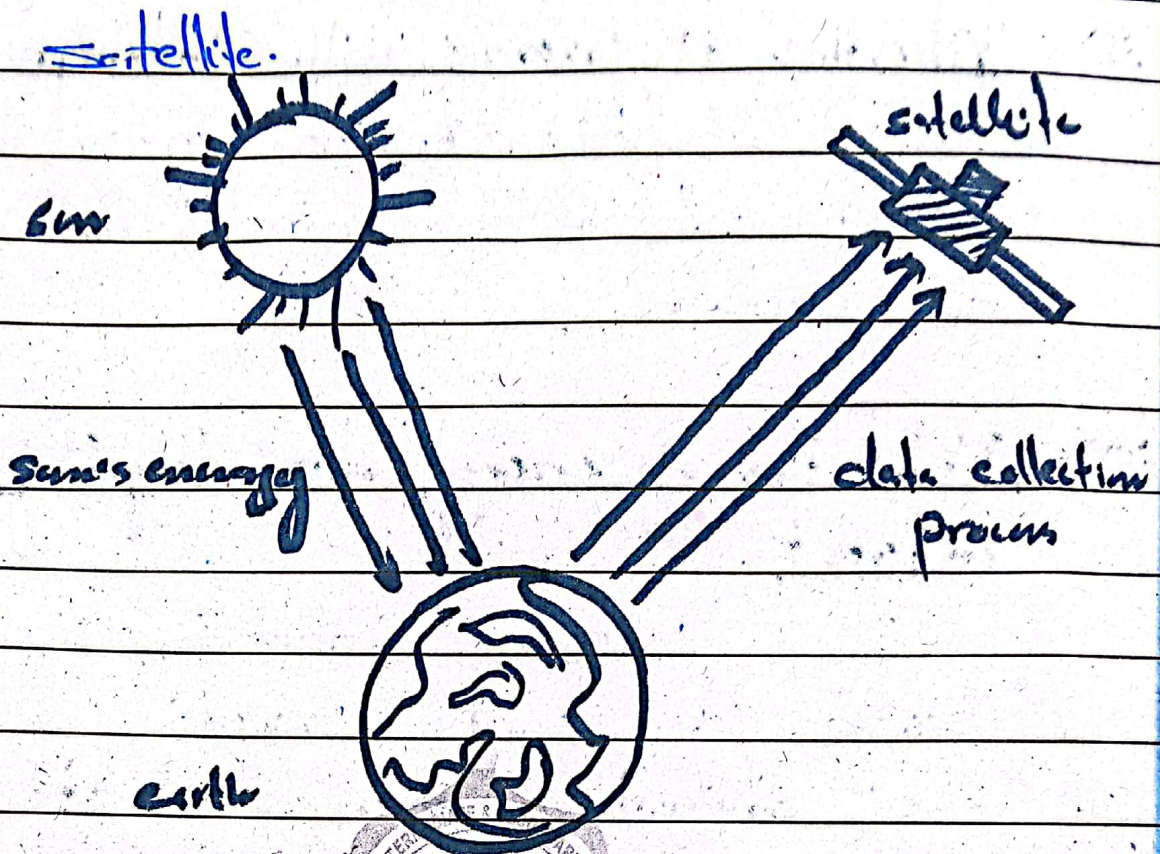
Active remote sensing is a process in which data is sent from the earth and is also collected at the earth.



Active Remote Sensing

b) Passive Remote Sensing

In passive remote sensing, information is dependent on the source of solar energy. Moreover, it is collected in



• Passive Remote Sensing

Remote Sensing: Basic Components as working principle

Following are principles of remote sensing:

i) Source of energy:

Remote Sensing process requires source of energy as a illumination of objects.
 i.e sun's energy



ii) Vibration of energy with atmosphere
After energy needs, it is vibrated with atmosphere of the earth.

iii) Vibration of energy with target of interest

Further, energy is hit with targets for further process.
i.e., animals, plants, soil etc

iv) Recording of data and reflection of data

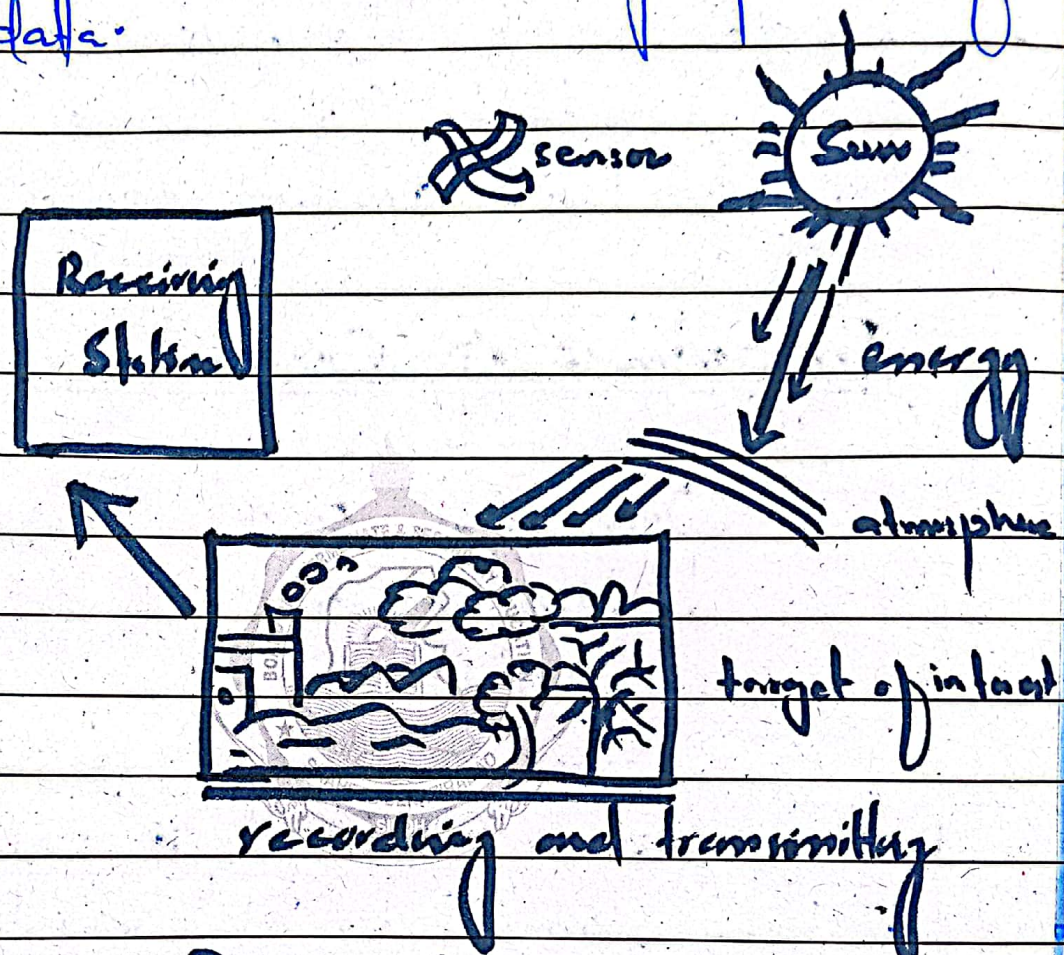
Further more, required data is recorded and some of it is reflected as well.

v) Transmitting and formation of image
Moreover, image is formed as transparent picture for illumination.



vi) Translation Station

Mostly, translation station helps in understanding phases of data.



Remote Sensing Process

Qb) What is Ozone layer? Why it is important? Also describe formation of ozone layer.

Ozone layer

↳ A shield of



oxidants, is known as

"ozone layer."

Ozone layer is a gas.

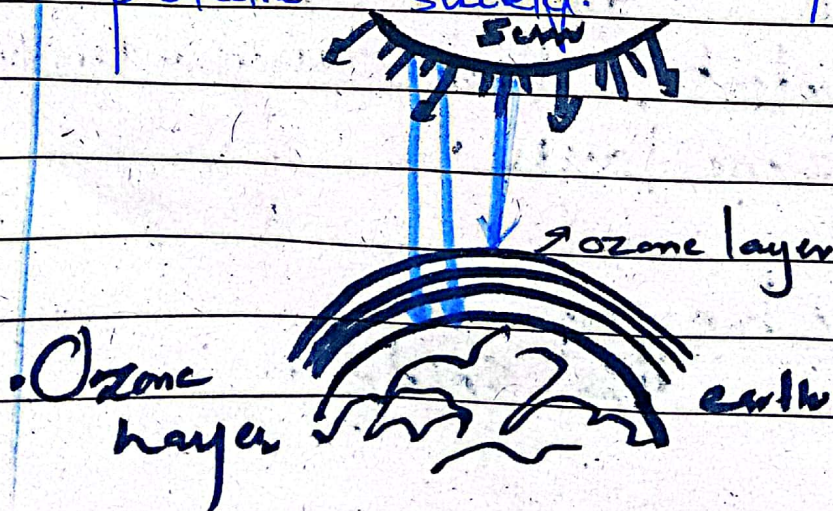
In fact, it is composed of three oxidants (O_3) - Hence, ozone layer is an oxidant layer.

Importance of Ozone layer

"Ozone layer is a

'blanket' of the earth."

Ozone layer acts as a protective layer. In fact, it protects Earth from harmful radiation, ultraviolet rays. Therefore, ozone layer is very important, protective shield.

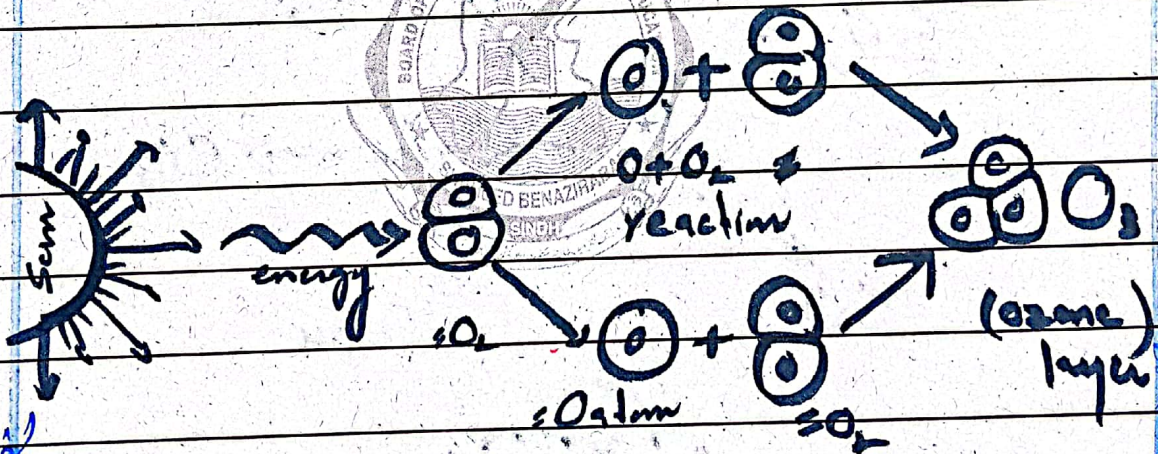


Formation of ozone layer

Ozone layer is formed from oxygen gas. In fact when Sun light hits oxygen (O_2), it breaks down into single atoms.

Further, these single atoms react with other oxygen gas (O_2).

Hence, ozone formation (O_3) takes place.



Formation of Ozone layer

Qc) What is acid rain? Describe its effects. Also describe its prevention.

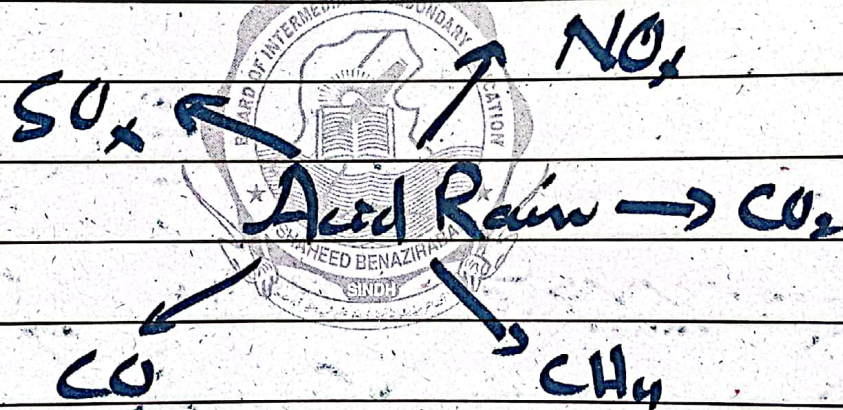
Acid Rain



"Any acidic form of precipitation, is known as acid rain."

Acid rain is acidic type of rain or any form of precipitation that is acidic, is called acid rain.

e.g., CH_4 , CO_2 , CO , SO_x , NO_x





Therefore, acid rain is rain with acidic nature.

Adverse Affects of Acid Rain

Following are affects:

i) Destroy aquatic life

Acid rain destroys aquatic life. As acid rain damages the quality of water. Hence it poses threat to aquatic animals.

ii) Destroy Soil Structure

Moreover, acid rain also affects nature of soil. It destroys capacity of soil. Therefore, acid rain damages soil form.

iii) Destruction of agriculture

Further, acid rain also affects agriculture. As acid rain destroys soil, it affects



proper growth of agriculture as well

Adverse Affects of Acid Rain

↓
Aquatic life

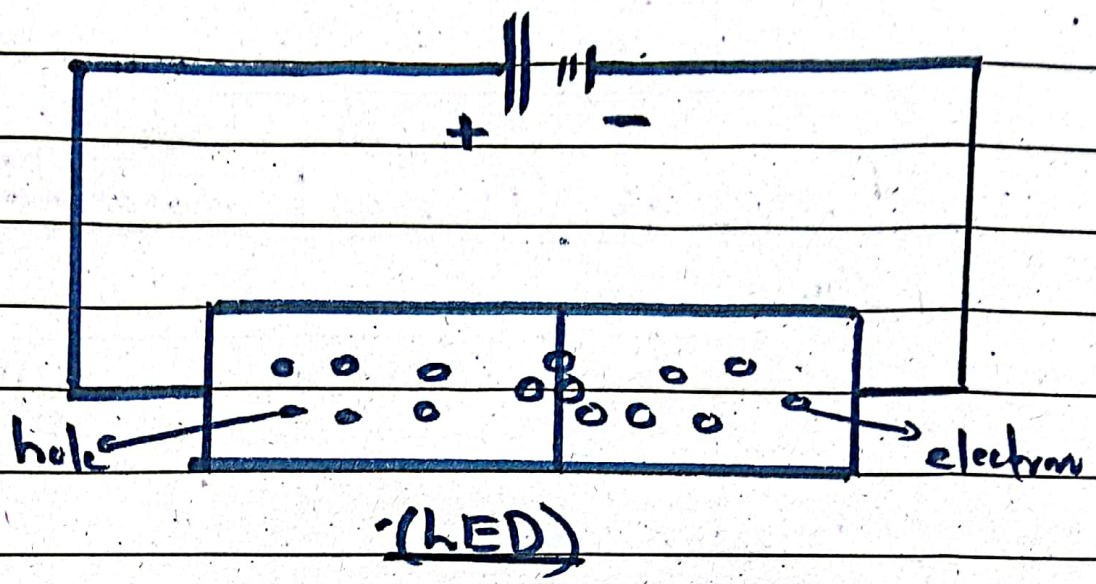
↓
Soil Structure

↓
Agriculture

Light Emitting Diode (LED)

"A semiconductor of light emission, is known as light emitting diode (LED)."

LED is a semiconductor. It emits light rays when voltage is applied. Hence it is also known as P-N junction. Below is a diagram:



Qd) What do you know about Disaster management cycle? Also describe its phases. Also describe National Disaster Management Authority (NDMA).

Disaster Management Cycle

"A process of reducing impacts of disasters is known as disaster management cycle."

Disaster management cycle is a process of reducing impacts of disasters. Moreover, it also focuses

on recovering affects of disasters.

Phases of Disaster Management Cycle

Following are four phases:

i) Megitalim Phase

In megitalim, forecasted affects of disaster are observed. i.e., shaking of buildings.

ii) Preparedness Phase

Preparedness phase is focusing on special skill developments to deal with disasters. i.e., education, training etc.

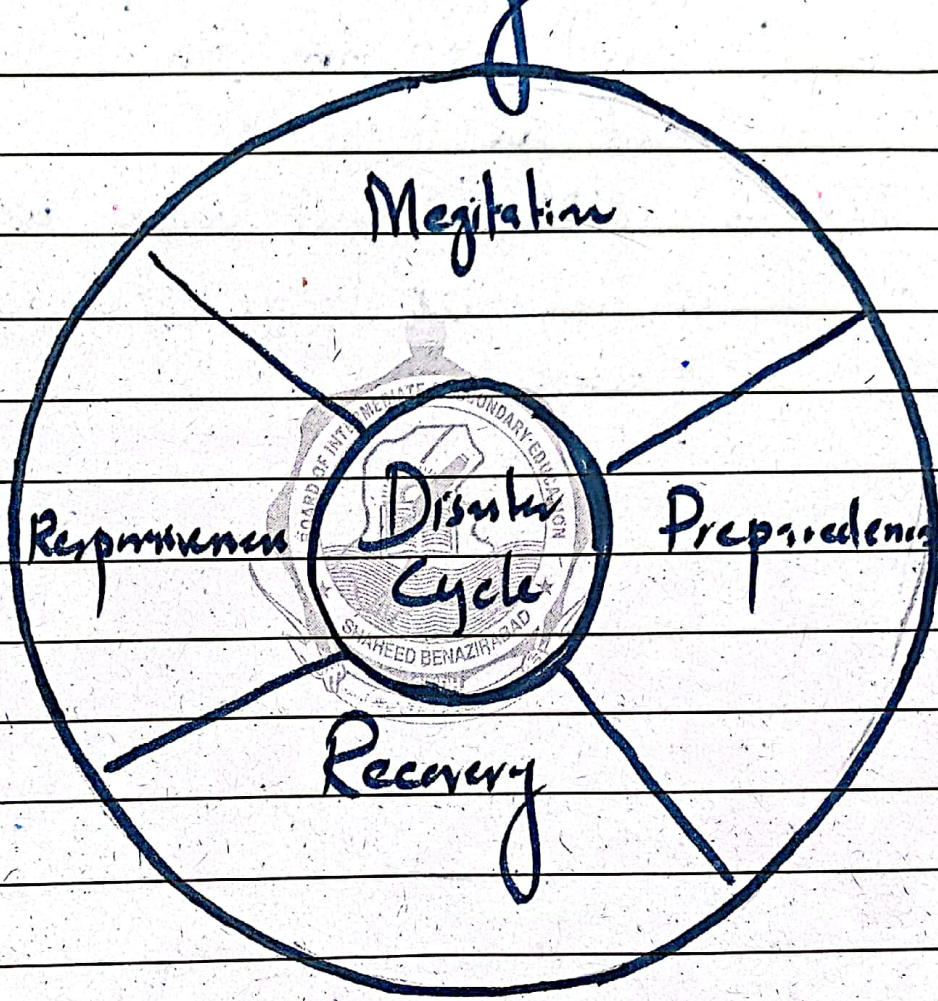
iii) Responsive Phase

In this phase immediate measures are taken after disaster is occurred. i.e., shifting people to the safe places.



iv) Recovery Phase

Recovery phase is reverse process to help recovery of affected local is done under this phase.
i.e re-building



National Disaster Management Authority (NDMA)

National Disaster Management



Authority (NDMA) is a set of
principles management of disasters.

• Post October 5, 2005;

Natural Disaster Ordinance

was passed in 2007

and became an

act in 2010. "

Therefore, NDMA deals with welfare
of civilian by reducing impacts
of disasters.

