

# Misbah Habib

Global warming is a wild beast and we all are poking at it which sticks, justify.

## Global warming

Global warming is not related to state or region it is the international phenomena which causes environmental problem. The main culprit behind global warming is human being.

Global warming is the ~~phenom~~ represent that the earth temperature is rising which is detrimental for human beings.

According to IPP (Intergovernmental Panel on Climate Change) report described that earth temperature increased ~~was~~ up to  $1.2^{\circ}\text{C}$  after industrial revolution.

Another report presented by NASA



which claimed that earth temperature increased in over last 100-120 years. Both sources claim the rise in the temperature.

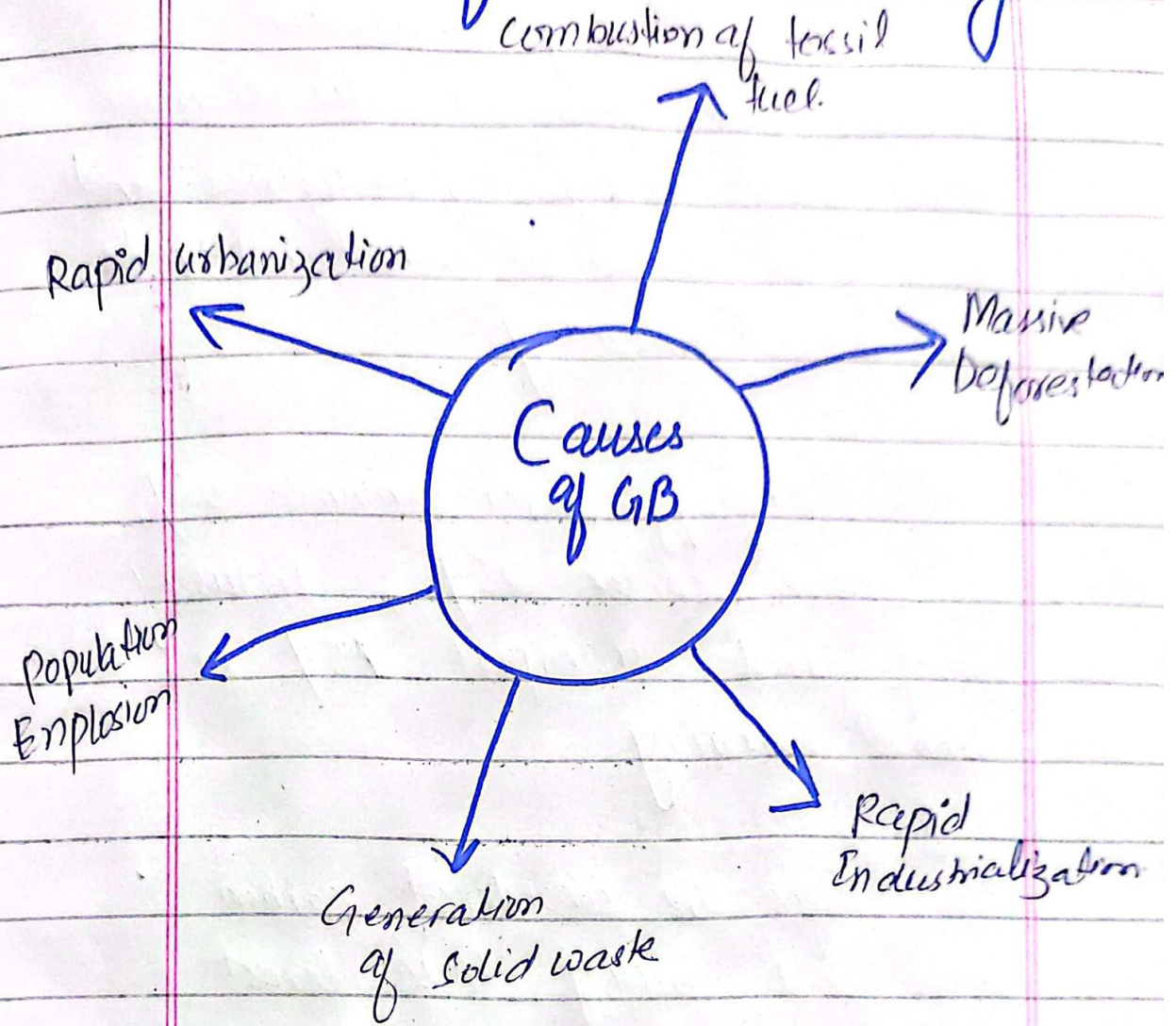
## Global warming caused by human activities

Global warming main reason is Green House Gases which trap the heat and increase the temperature of the earth.

However, main contributor of global warming is emission of carbon dioxide which is due to activity of human beings. According to United Nations reports global warming caused by CO<sub>2</sub> carbon dioxide. It is responsible for the 67% of global warming. However, mostly carbon dioxide is emitted by human activities.



# Cause of Global Warming



Population Explosion

Demands lands and occupation which leads to

Massive Deforestation

Rapid Industrialization

Urbanization

Increase

Solid waste

Demands for Resources increases  
Combustion of fossil fuels



## Combustion of fossil fuel

Increasing population increase the demand for resources more food, transport, industries and energy is required which instigate the global warming.

According IPCC third Assessment report energy sector contribute 35%, agriculture sector 25%, Industry 25% and transport 25% in global warming

## Massive Deforestation

Trees are considered carbon sinks. and cutting those forest instigate global warming. According to Global forest watch 10 million hectares have been deforested over the 04 years.

## Rapid Urbanization

According USA Bureau of Statistics in few years Urban citizens population increased from 54% to 60%. which is an alarming sign



(2)

## Generation of Solid waste

Solid waste emits methane and CO<sub>2</sub> which contribute to the global warming. According to World Bank reports, solid waste is expected to increase 3.5 times by 2050.

## (b) What is origin of earth

### Earth origin

Origin of earth is singularity. It started 4.5 billion years ago.

### Age of earth

It is being claimed that age of earth is 14 billion years.

### Big Bang theory

It is believed that entire universe was ~~for~~ encapsulated



in a bubble. After sometimes bubble exploded and universe came into existence.

## Matter and Anti-Matter

After explosion universe divided into matter and anti matter. These matters destroyed each other. The matters which survived formed protons most stable particles

## Formation of Hydrogen

Protons remained as the stable stable particle which combined with ~~electrons~~ <sup>neutrons</sup> and created the hydrogen gas.

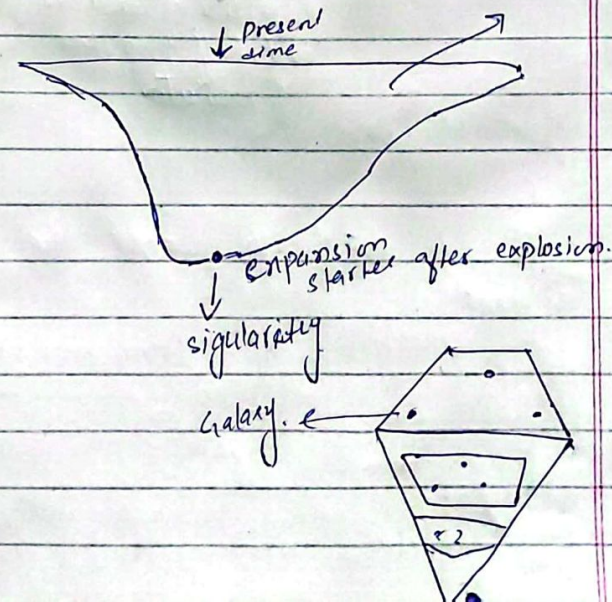
## Atoms

However, when earth cooled down after years the nucleus captured the electron to form the

atoms. After this clouds were formed and celestial bodies were the consequence of these clouds.

## Expansion of Earth

At starting point of earth is singularity later it started expanding and galaxies were formed. In today's date earth is in expansionary form it started from a single point and divided into multiple galaxies.

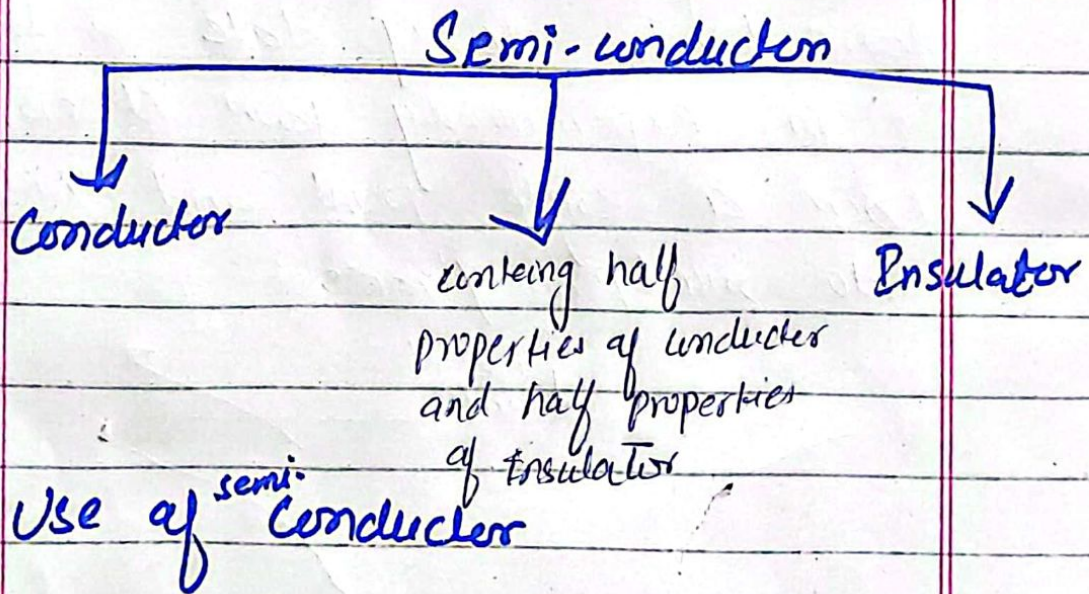




## Q Semi-conductor

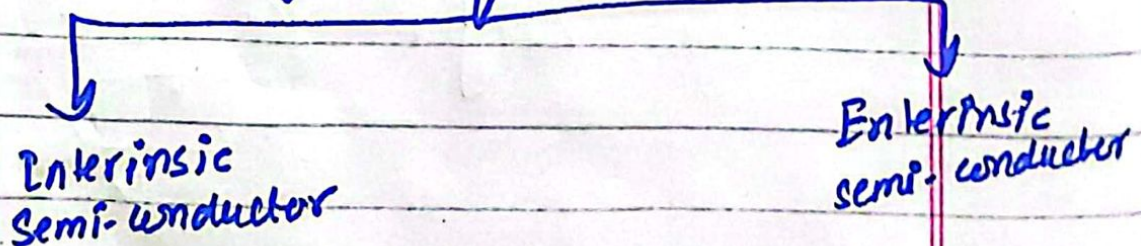
### Semi-conductor

Semi-conductor is the one of the type of conductor. Semi conductor is the between conductor and insulator. It has the half properties of conductor and half properties of insulator.



It is used to control the flow of the current

### Types of Semi conductor





2

## ① Intrinsic semi-conductor

Pure form of semi-conductor is called intrinsic semi-conductor

## ② Extrinsic semi-conductor

However when impurities are added it became extrinsic semi-conductor

### Types of extrinsic semi-conductor

P-type

N-type

N-type

When impurity is added to a pure <sup>semi</sup>-conductor from 5 group of periodic table, N type extrinsic semi-conductors are formed

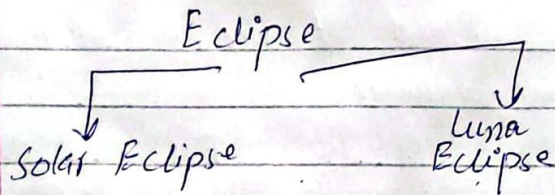
P-type

When impurity is added to semi-conductor from 3 group of periodic table it became the P-type semi-conductor

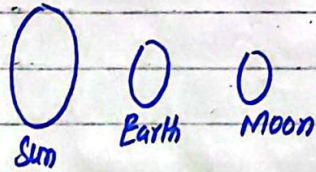


## (d) Eclipse

It is obscuring of one astronomical object by another astronomical object

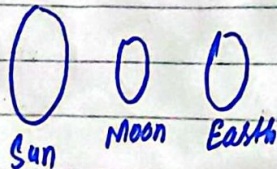


### Lunar Eclipse

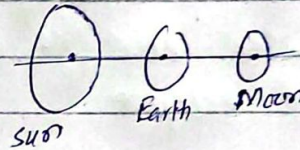
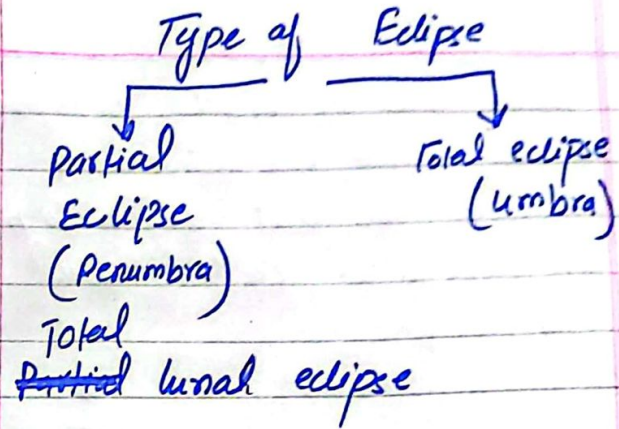


When earth is between sun and moon it called lunar eclipse

### Sun Eclipse



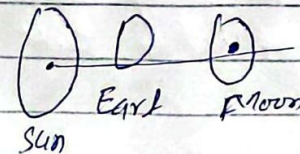
When moon is between earth and sun it is called solar eclipse



When earth is in central line of sun and moon such eclipse is called total lunar eclipse

### Partial Lunar Eclipse

When earth is above and below the center line it is called partial lunar eclipse





## Total solar eclipse

When moon is exactly aligned on the same line joining the center of sun and earth such an eclipse is called total solar eclipse.

## Partial solar eclipse

When moon is above or below the center point it is called partial eclipse.

## Annular solar eclipse

Due small particle covering the large object small some portion of light escape side ways of the moon falls on the surface of earth making beads like patterns called Bailey beads. This happened after partial or full moon eclipse.

m of inp

Output Dev

monitor

water

lines

er

for

ing system

y-card



4

Q Draw Block Diagram of input and output devices

Input Devices

output Devices

1

Mouse

Monitor

2

Keyboard

Printer

3

Joy stick

Headphones

4

Mic

Speakers

5

Scanner

Projector

6

Universal serial Bus

Plotter

7

Camera

GPS  
Global positioning system

8

Bar code reader

memory card

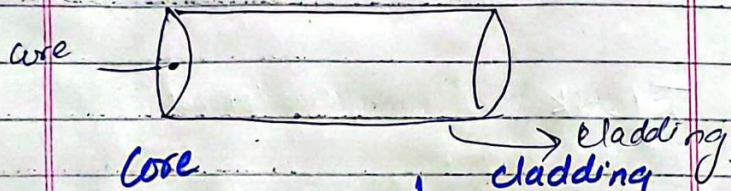


## b) Optical fibres

Optical fibres are the strands of glass which are used to transmit light signals from one point to another point in telecommunication.

Part of optical fibre

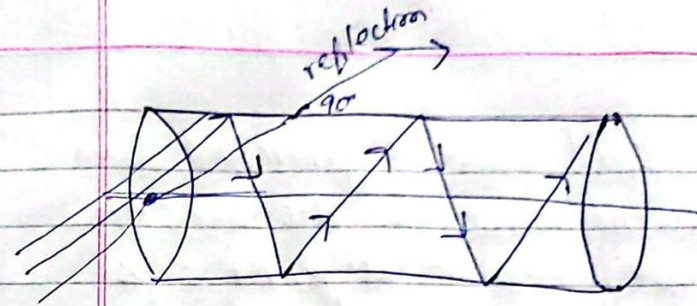
- a) Core      b) Cladding



- It surrounds the core. It has high density.
  - It is high refractive index.
  - More light bending.
- It surrounds the core. It has low density. It is low refractive index. Less light bending.

### Working of optical fibre

It works on the principle of total internal reflection.



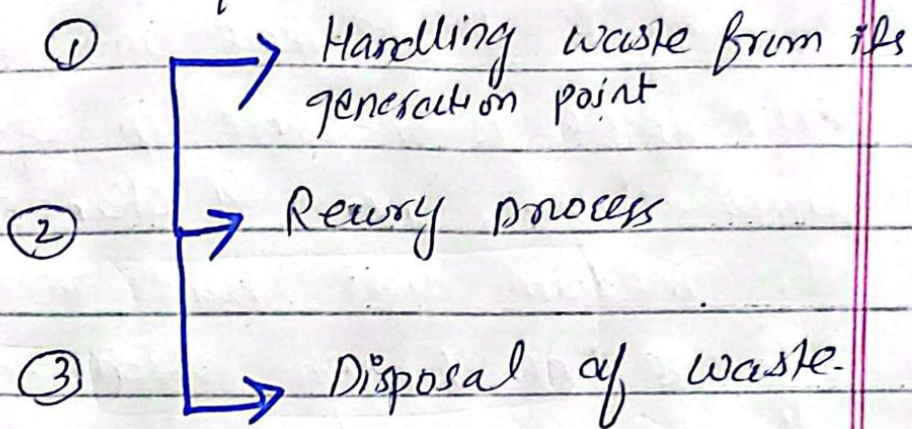
Normal is the reference line through which angle is measured in optical fibres. However, due to change of the medium light bends in a reference line through which angle is measured.

In practice the light's total reflection occurs at the ~~core~~ core of cladding. The total internal reflection occurs after the critical angle. Source of light changes the ray bending.



## ② Solid waste management

Solid waste is generated from different sources. To dispose this waste include different steps these steps include



### Techniques for dumping the waste

- a) open Dumping
- b) Composting
- c) Incineration
- d) land filling

#### Open Dumping

It is dumping of waste in the open area in surrounding of cities. It must be away from residential and commercial area.

It is unsustainable method of dumping



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In 1992 Rio declaration open dumping was discourage as it caused many problems.

### Composting

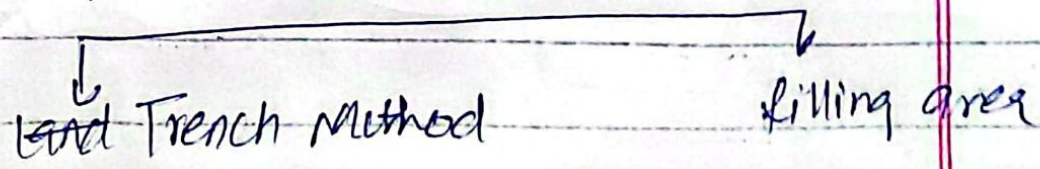
It is use to control the bio-waste. All organic waste is converted into the fertilizers which helps to protect the crops.

### Incineration

It is combustion of waste other than the organic waste. It is quite opposite to composting.

### land filling

This is the method used to bury the waste in land through two methods





## Q GPS

① → Global positioning system is satellite based system

② → Used in navigation

③ → use in mobile watches or any other electronic appliances

④ Does not need to maintain data base.

⑤ use for direction guidance.

## GIS

① Global Information system is computer base system

② → use to record the information

③ use in computers

④ It is the combination of hardware and software require a database

⑤ Used in Analysis

Similarly for sister

Q ← R

D ← E

S ← T

R ← S

R<sup>H</sup> ← S

For sister

Q D S R H R

it is the back shift of Alphabets

⑥ (i) 8

probability =  $\frac{\text{number of chances of occurrence}}{\text{Total possible outcome}}$

$$\text{Prob}(8) = \frac{1}{12}$$

(ii) an even number

$$\text{Prob}(\text{even}) = \frac{6}{12} = \frac{1}{2}$$

(iii) perfect square

$$\text{prob}(\text{perfect square}) = \frac{3}{12} = \frac{1}{4}$$

(iv) prob (negative number) =  $\frac{0}{12} = 0$

(v) Probability (less than 13) =  $\frac{12}{12} = 1$

## Q# No 08

① Brothers → Q D G S N Q A

B forward Backward shift of alphabets

A ← B

Q ← R

N ← O

S ← T and so on



$$\begin{array}{r} 24 \\ 36 \\ \hline 6 \end{array}$$

c) Perimeter =  $L + L + W + W$

Area =  $L \times W$

Perimeter =  $2(12) + 15(2)$

Perimeter =  $24 + 36$

Perimeter =  $60 \text{ cm.}$

$$\begin{array}{r} 12 \\ 15 \\ 60 \\ \hline 12 \\ \hline 180 \end{array}$$

Area =  $15 \times 12$

Area =  $180 \text{ m}^2$

- d) 15, 15, 16, 16, 16, 17, 17, 18, 19

mean

=  $\frac{\text{Sum of numbers}}{\text{total number in counts}}$

total number in counts

=  $\frac{15 + 15 + 16 + 16 + 17 + 17 + 18 + 19}{9}$

9

=  $16.5$

Median =  $\frac{n+1}{2}$

=  $\frac{9+1}{2} = \frac{10}{2} = 5$

Mode: most frequent no. is

16



8

16 Range:

It is the difference b/w largest and smallest value

$$= 19 - 15$$

4 Ans

Q # 6

9

Piece of wood = 300

Small piece =  $x$

large piece =  $4x$

$$x + 4x = 300$$

$$5x = 300$$

$$x = \frac{300}{5}$$

$$x = 60 \text{ feet}$$

$$\text{long piece} = 4x = 4(60)$$

$$= 240 \text{ feet}$$

b

Perimeter =  $2L + 2W$   
of rectangle

$$L = 3 + 2W$$



$$98 = 2(L + W)$$

$$\frac{98}{2} = L + W$$

putting length value

$$49 = (3 + W) + W$$

$$49 = 3 + 2W$$

$$49 - 3 = 2W$$

$$46 = 2W$$

$$W = \frac{46}{2}$$

$$L = 3 + W$$

$$L = 3 + \frac{46}{2}$$

$$L = \frac{9 + 46}{2}$$

$$L = \frac{55}{2}, W = \frac{46}{2}$$

(c)

Total matches =  $x$

$$\left( \frac{60x}{100} \right)$$

won matches  $60\% x$

lost matches  $24$

$$\text{won } \frac{3}{5}x$$

$$x - \frac{3}{5}x = 24$$

$$\frac{5x - 3x}{5} = 24$$

$$2x = 5 \times 24$$

$$2x = 120$$

$$x = 60$$

Total matches 60

(d)

$$\frac{3n + 2}{2n + 6} = \frac{4}{5}$$

$$5(3n + 2) = 4(2n + 6)$$

$$15n + 10 = 8n + 24$$

$$15n - 8n = 24 - 10$$

$$7n = 14$$

$$n = 2$$

$$3(2), 2(2)$$

$$6, 4$$

$$6:4 \Rightarrow 3:2$$