Light

1. Define light?
Ans: Light is a form of energy that affects our eyes to produce the sensation of vision.

2. State the two types of sources of light and differentiate between them?
Ans: The two types of sources of light are as follows:

- Natural Sources of light
- Artificial Sources of light.

Natural Source of light	Artificial Sources of Light.
• Natural sources of light are light sources which are found naturally around us. • Ex- Sun, Stars, Fireflies.	• Artificial sources of light are man made light sources. • Ex- Torch, Burning candle, Tube light etc.

3.What do you understand by scattering of light?
Ans: Although the sun's light does not reach us directly, there is brightness all around us. Light given out by the sun spreads in all direction by the particles of the atmospheric air. This process is called scattering of light.

4. Differentiate between Luminous and Non luminous bodies?
Ans: The difference between a luminous and non luminous body is as follows:

Luminous Bodies.	Non-Luminous Bodies.
• The bodies which emit their own light are called luminous bodies. • They shine by their own light • Ex- Sun, Stars, Burning	• The bodies which do not emit their own light are called Non-luminous bodies. • They shine by the light falling on them from some

candle etc.	luminous body. • Ex- Book, Pencil, Table.

5. The moon shines at night but is considered as a non-luminous body. Explain why?

Ans: The moon is a Non-luminous body because it has no light of its own. It receives the light from the sun. This sunlight after striking the moon, reaches us on the earth, due to which we are can see it shining.

6. How does light make objects visible?

Ans: A non luminous body becomes visible when light from a luminous body falls on it and after striking it, reaches our eyes.

7. Differentiate between Transparent, Translucent and Opaque substances with the help of examples.

Ans: The difference between Transparent, Translucent and Opaque substances are as follows:

Transparent Substance	Translucent Substance	Opaque substance
• A substance is said to be transparent if light passes through it easily. • Ex- Glass, Air, Water	• A substance is said to be translucent if it allows only a part of light to pass through it. • Ex- Ground glass, Waxed paper, Greased Paper.	• A substance is said to be opaque if it does not allow any light to pass through it. • Ex- Wood, Metallic sheet, black paper etc.

8. How do you obtain a point source of light?

Ans: A point source of light is obtained either by placing a screen having a fine hole in front of the luminous body or by placing the luminous body inside a box having a fine hole on one side of its sides.

9. What is an extended source of light?

Ans: A luminous body such as torch, electric lamp or burning candle emits light and is called an extended source of light.

10.Define the following:

a. Ray of Light.

b. Beam of light.

Ans: a. Light travelling in any one direction in a straight line is called a Ray of Light. It is represented by a straight line bearing an arrow, which indicates the direction in which the light is moving.

b. A group of light rays given out from a source is called a beam of light.

11.State the three types of beams of light?

Ans: A beam of light can be of three types:

a. a parallel beam. (light rays parallel to each other)

b. a divergent beam (light rays given out from a point source)

c. a convergent beam. (light rays coming towards a point source)

12. What is the speed of light?

Ans: Light travels at a speed of $3X10^{8}\ ms^{-2}$ in air or vaccum.