

(3) Electrostatic Image—Making

(4) Electromagnetic Image— Making

Definition; All Electrostatic Copiers work under the premise that a charge of electricity is placed on an Image Drum which has the ability to retain the electric charge much like a capacitor holds its charge but with the ability to hold or release the charge depending on how much light and darkness is applied to the Image Drum. A photocopier (also known as a copier or copy machine) is a machine that makes paper copies of documents and other visual images quickly and cheaply. Most current photocopiers use a technology called xerography, a dry process using heat. Copiers can also use other technologies such as ink jet, but xerography is standard for office copying

16. One Kilowatt hour is equal to—

(1) 3.6 Megajoule

(2) 3.8 Megajoule

(3) 3.2 Megajoule

(4) 4.0 MegaJoule

Definition;

The energy of a kilowatt-hour (kWh) is 3600000 joules or 3.6 megajoule. In physics, energy is an indirectly observed quantity that is often understood as the ability of a physical system to do work on other physical systems. However, this must be understood as an overly simplified definition, as the laws of thermodynamics demonstrate that not all energy can perform work.

17. What is the minimum escape velocity of a rocket to be launched into space ?

(1) 5 Km/Sec.

(2) 6 Km/Sec.

(3) 11 Km/Sec.

(4) 15 Km/Sec.

Definition;

makes up only 0.6 parts per million of the atmosphere. Ozone is a powerful oxidant (far more so than di-oxygen) and has many industrial and consumer applications related to oxidation. This same high oxidizing potential, however, causes ozone to damage mucus and respiratory tissues in animals, and also tissues in plants, above concentrations of about 100 parts per billion. This makes ozone a potent respiratory hazard and pollutant near ground level.

28. “Curie” is unit of :

- (1) Radioactivity**
- (2) Temperature
- (3) Heat
- (4) Energy.

Definition

. Curie, in physics, is a unit of activity of a quantity of a radioactive substance, named in honor of the French physicist Marie Curie. One curie (1 Ci) is equal to 3.7×10^{10} becquerels (Bq). Radioactivity refers to the particles which are emitted from nuclei as a result of nuclear instability. Because the nucleus experiences the intense conflict between the two strongest forces in nature, it should not be surprising that there are many nuclear isotopes which are unstable and emit some kind of radiation. The most common types of radiation are called alpha, beta, and gamma radiation, but there are several other varieties of radioactive decay.

29. Which of the following is used in the oven ?

- (1) X-rays
- (2) UV rays
- (3) Microwaves**
- (4) Radio Waves

Definition;

Definition;

The refractive index of many materials (such as glass) varies with the wavelength or color of the light used, a phenomenon known as dispersion. This causes light of different colors to be refracted differently and to leave the prism at different angles, creating an effect similar to a rainbow. In optics, dispersion is the phenomenon in which the phase velocity of a wave depends on its frequency, or alternatively when the group velocity depends on the frequency. Media having such a property are termed dispersive media. Dispersion is sometimes called chromatic dispersion to emphasize its wavelength dependent nature, or group-velocity dispersion (GVD) to emphasize the role of the group

32. A boat will submerge when it displaces water equal to its own:

- (1) volume
- (2) weight
- (3) surface area
- (4) density

Definition,

A boat will float when the weight of the water it displaces equals the weight of the boat and anything will float if it is shaped to displace its own weight of water before it reaches the point where it will submerge. Floating of the boat works on the principle of buoyancy force which is an upward force exerted by a liquid, gas or other fluid, that opposes the weight of an immersed object. In a column of fluid, pressure increases with depth as a result of the weight of the overlying fluid. Thus a column of fluid, or an object submerged in the fluid, experiences greater pressure at the bottom of the column than at the top. This difference in pressure results in a net force that tends to accelerate an object upwards.

33. Surface tension in a liquid is due to :