

Ans 4. CURIE TEMPERATURE:- Curie point, also called Curie temperature, temperature at which certain magnetic materials undergo a sharp change in their magnetic properties. In the case of rocks and minerals, permanent magnetism appears below the Curie point - about magnetic mineral magnetite. This temperature is named for the French physicist Pierre Curie, who in 1895 discovered the laws that relate some magnetic properties to change in temperature. Below the Curie point - for example,  $770^{\circ}\text{C}$  ( $1418^{\circ}\text{F}$ ) for the iron- atoms that behave as tiny magnets.

(D) MAGNETIC HYSTERESIS:- Magnetic hysteresis occurs when an external magnetic field is applied to a ferromagnetic material such as iron and the atomic dipoles align themselves with it. Even when the field is removed, part of the alignment will be retained; the material has become magnetized. Once magnetized the magnet will stay magnetized indefinitely. To demagnetize it requires heat or a magnetic field in the opposite direction. This is the effect that provides the element of memory in a hard disk drive.

The relationship between field strength  $H$  and magnetization  $M$  is not linear in such materials.