

$$c^2 = [m/s]^2$$

$$\Rightarrow [L^2 T^{-2}]$$

$\Rightarrow$ The Dimension of $\frac{1}{\mu_0 \epsilon_0}$

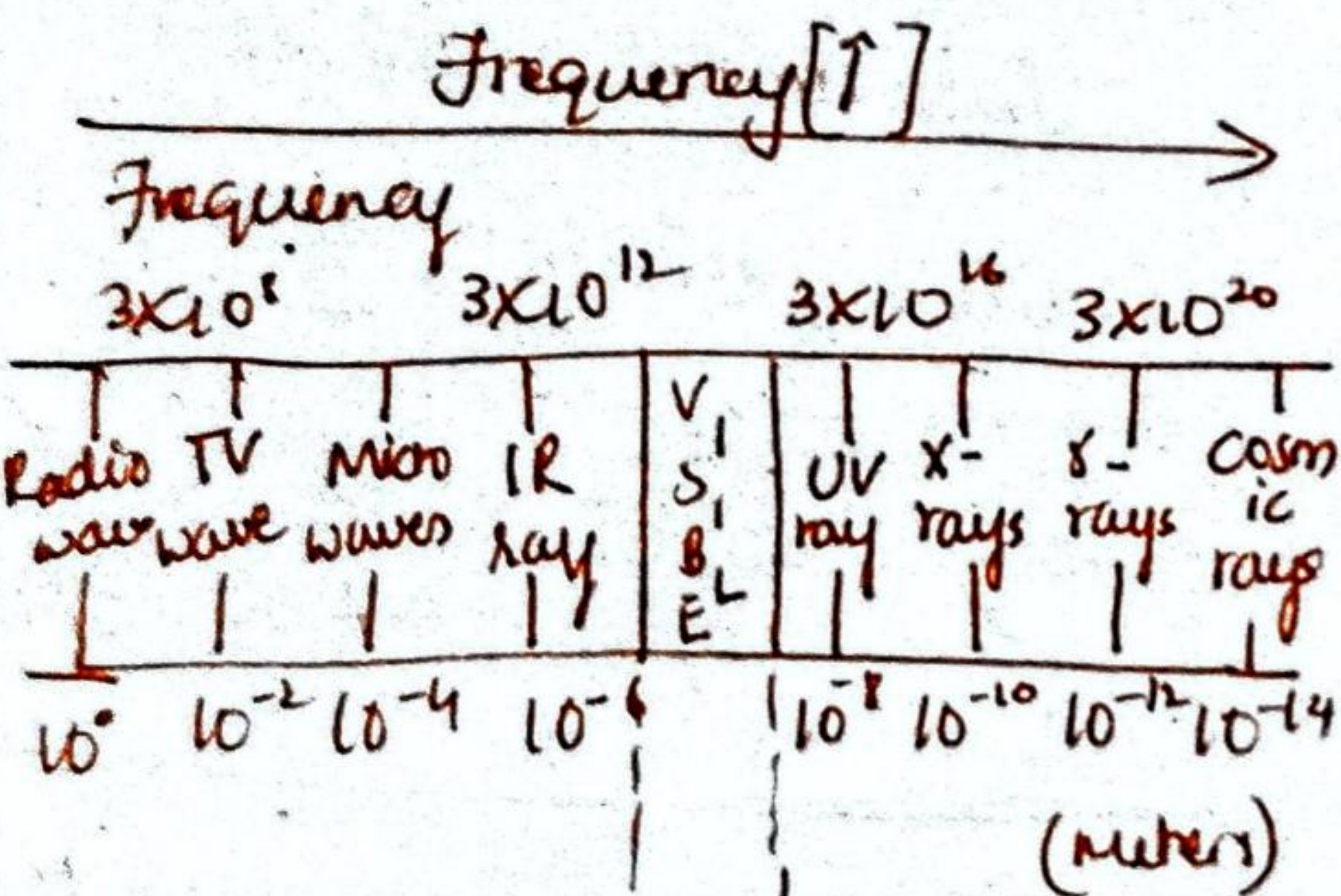
* The speed of light in air, in an electromagnetic wave, travelling in air where dielectric constant $k = 1.006$, will be; 3×10^8 m/s itself

Electromagnetic Spectrum

Gamma Rays $\rightarrow$ X-Rays

$\rightarrow$ UV $\rightarrow$ Visible $\rightarrow$

Infrared $\rightarrow$ Microwaves



Wavelength $\uparrow$

V I S I B L E

700 nm

400 nm

Preview from Notesale.co.uk
Page 5 of 5

* β -rays is not a electromagnetic wave

* If certain Intensity of light falls on a surface the pressure exerted on the surface is;

$$P = \frac{I}{c} (1 + r)$$

$r \rightarrow$ reflective surface (reflectivity)

$I \rightarrow$ Intensity

$c \rightarrow$ speed of light

* If perfectly reflecting surface

$$\rightarrow r = 1 \quad P = \frac{2I}{c}$$

* If perfectly absorbing surface

$$\rightarrow r = 0 \quad P = \frac{I}{c}$$