



- 2) The electric field intensity due to uniformly charged sphere at an internal point is proportional to \_\_\_\_\_
- a) Area of sphere      b) Circumference of sphere  
c) Volume of sphere    d) distance (r) of the point from the centre.
- 3) Maxwell's first equation is derived from \_\_\_\_\_
- a) Gauss theory in electrostatic  
b) Gauss theory in magnetostatics  
c) Faraday's law  
d) Lenz law
- 4) \_\_\_\_\_ is the equation of continuity.
- a)  $\text{curl } H = J + \frac{\partial D}{\partial t}$       b)  $\text{curl } B = J + \frac{\delta D}{\delta t}$   
c)  $\text{curl } E = J + \frac{\partial D}{\partial t}$       d)  $\text{curl } m = J + \frac{\partial D}{\partial t}$
- 5) Electromagnetic waves are \_\_\_\_\_
- a) Longitudinal wave      b) Transverse wave  
c) sinusoidal wave      d) square wave
- 6) \_\_\_\_\_ property of an electromagnetic wave depends on the medium in which it is travelling.
- a) Wavelength      b) Time period      c) Frequency      d) Velocity
- 7) In Maxwell's fourth equation, the term  $\frac{\delta D}{\delta t}$  is called as \_\_\_\_\_
- a) displacement current density      b) current density  
c) displacement current      d) displacement density
- 8) Electromagnetic waves are produced where as \_\_\_\_\_
- a) Electric charges are retarded  
b) Electric charges are accelerated  
c) Magnetic charges are retarded  
d) Magnetic charges are accelerated
- 9) EM wave travel in vacuum with a velocity \_\_\_\_\_
- a)  $3 \times 10^8$  m/s      b) velocity of light  
c) both a and b      d) 331 m/s
- 10) The equation  $\nabla^2 U = 0$  is known as \_\_\_\_\_
- a) Laplace equation      b) Poisson's equation  
c) Gauss law      d) Differential form of Gauss law