

Note : Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

1-1	Work done on a charge moving in a uniform magnetic field is :			
	(A) Zero	(B) Positive	(C) Negative	(D) Maximum
2	The most common source of alternating voltage is :			
	(A) Motor	(B) Cell	(C) Generator	(D) Thermocouple
3	Compton effect is associated with :			
	(A) Gamma rays	(B) Beta rays	(C) X-rays	(D) Positive rays
4	Alpha particle carries a charge of :			
	(A) $+2e$	(B) $-2e$	(C) $+e$	(D) Zero
5	The difference of potential energy between two points per unit charge is :			
	(A) Electrical potential	(B) Potential difference	(C) Absolute potential	(D) All of these
6	The devices which are used to convert various physical quantities into electrical voltages are called :			
	(A) Filters	(B) Sensors	(C) Rectifiers	(D) Amplifiers
7	The current flowing through each resistor of equal resistances in parallel combination is :			
	(A) Different	(B) Zero	(C) Same	(D) Infinite
8	The Boolean expression of NAND gate is :			
	(A) $X = A \cdot B$	(B) $X = \bar{A}$	(C) $X = \overline{A \cdot B}$	(D) $X = A + B$
9	Energy released by conversion of 1 amu of mass is :			
	(A) $1.6 \times 10^{-19} \text{ ev}$	(B) $1.6 \times 10^{-19} \text{ Mev}$	(C) 200 Mev	(D) 931 Mev
10	The energy stored in the inductor per unit volume is :			
	(A) $\frac{B^2}{2\mu_o}$	(B) $\frac{\mu_o}{2B}$	(C) $\frac{\mu_o}{2B^2}$	(D) $\frac{B^2}{2\mu_o}$
11	The space between the plates of the capacitor is filled by a dielectric of dielectric constant 'k'. The capacitance of the capacitor :			
	(A) Increased by a factor 'k'	(B) Increased by a factor ' $k^2$ '		
	(C) Decreased by factor 'k'	(D) Remains unchanged		
12	The mean value of A.C. in one complete cycle is :			
	(A) 1	(B) Zero	(C) $I_o$	(D) $\frac{I_o}{\sqrt{2}}$
13	Unit of self inductance is :			
	(A) Weber	(B) Henry	(C) Tesla	(D) Farad
14	The number of crystal systems are :			
	(A) Three	(B) Five	(C) Fourteen	(D) Seven
15	Beam of electron is also called :			
	(A) X-rays	(B) Alpha rays	(C) Gamma rays	(D) Cathode rays
16	Light emitting diodes ( LEDs ) are made from semiconductors :			
	(A) Silicon	(B) Germanium	(C) Gallium arsenide	(D) Carbon
17	In electronic transition, atom cannot emit :			
	(A) Infrared radiations	(B) Visible radiations		
	(C) Gamma radiations	(D) Ultraviolet radiations		