

**PHYSICS**

222-(INTER PART – II)

Time Allowed : 20 Minutes

Q.PAPER – II ( Objective Type )

GROUP – I

Maximum Marks : 17

**PAPER CODE = 8473**

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) $200 \text{ Mev}$ (D) $931 \text{ Mev}$
10	The energy stored in the inductor per unit volume is :
	(A) $\frac{B^2}{2\mu_0}$ (B) $\frac{\mu_0}{2B}$ (C) $\frac{\mu_0}{2B^2}$ (D) $\frac{B^2}{2\mu_0}$
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 <sup>2</sup> ' (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) $I_0$ (D) $\frac{I_0}{\sqrt{2}}$
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