

Physics (Objective Type)

(For all Sessions)

Time: 20 Minutes

Group-II

Marks:17

Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank.

1. All motions are _____.
(A) absolute (B) uniform (C) relative (D) variable
2. If an object moves with the speed of light, its mass will be _____.
(A) zero (B) maximum (C) infinity (D) minimum
3. Which of the following has the largest de Broglie wavelength at same speed?
(A) proton (B) α - particles (C) carbon atom (D) electron
4. The dead time of G.M tube is _____.
(A) 10^{-3} sec (B) 10^{-6} sec (C) 10^{-4} sec (D) 10^{-8} sec
5. Slow neutrons can cause fission in _____.
(A) uranium - 238 (B) uranium - 235 (C) neptunium (D) lithium
6. SI unit of electric flux is _____.
(A) $\text{N m}^2 \text{C}^{-1}$ (B) $\text{N m}^2 \text{C}$ (C) $\text{N m}^{-1} \text{C}^{-1}$ (D) NC^{-1}
7. A proton is moved from low potential to high potential between two points having potential difference of 1 volt energy gained by proton is _____.
(A) 1 ev (B) 2 ev (C) 1.6×10^{-19} ev (D) 1.6 ev
8. A rheostat can be used as _____.
(A) potential divider (B) variable resistance (C) amplifier (D) both (A) & (B)
9. Magnetic field due to current carrying straight varies as _____.
(A) $\frac{1}{r^2}$ (B) r^2 (C) $\frac{1}{r}$ (D) r
10. Charge to mass ratio of neutron is _____.
(A) zero (B) $9.53 \times 10^9 \text{ C kg}^{-1}$ (C) $1.758 \times 10^4 \text{ C kg}^{-1}$ (D) $1.775 \times 10^{-11} \text{ C kg}^{-1}$
11. The motional emf depends upon _____.
(A) length of conductor (B) magnetic field (C) speed (D) all of these
12. Lenz's law is the manifestation of conservation of _____.
(A) current (B) voltage (C) energy (D) all of these
13. The reactance of an inductor is given as _____.
(A) ωL (B) $\frac{1}{\omega L}$ (C) $\frac{\omega}{L}$ (D) $\frac{L}{\omega}$
14. The reactance of an inductor increases with increase in _____.
(A) frequency (B) voltage (C) resistance (D) capacitance
15. Which one is not a ductile material?
(A) lead (B) copper (C) steel (D) iron
16. Open loop gain of operational amplifier is of the order of _____.
(A) 10^6 (B) 10^3 (C) 10^7 (D) 10^5
17. Gain of inverting amplifier with external resistance $R_1 = 10 \text{ k}\Omega$ and $R_2 = 100 \text{ k}\Omega$, is given as _____.
(A) -10 (B) 10 (C) -100 (D) 100