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Inter. (Part-II)-A- 2019

Roll No._____ to be filled in by the candidate.

(For all sessions)

Paper Code	8	4	7	5

Physics (Objective Type)

Time: 20 Minutes **Marks: 17**

NOTE: Write answers to the questions on objective answer sheet provided. Four possible answers A,B,C & D to each question are given.Which answer you consider correct, fill the corresponding circle A,B,C or D given in front of each question with Marker or pen ink on the answer sheet provided.

1.1. Colour of light emitted by LED depands upon:
(A) its forward biasing (B) its reverse biasing (C) type of material (D) forward current

2. At low temperature, a body emits radiations of:
(A) shorter wavelength (B) longer wavelength
(C) high frequency (D) high frequency& shorter wavelength

3. The shortest wavelength in Lyman series is equal to:
(A) R_H (B) $\frac{R_H}{2}$ (C) $\frac{1}{R_H}$ (D) $\frac{2}{3}R_H$

4. In the reaction, $X+{}^{17}_{8}O \rightarrow {}^{14}_{7}N + {}^{4}_{2}H_e$, X is:
(A) ${}^{1}_{1}H$ (B) ${}^{2}_{1}H$ (C) ${}^{0}_{1}e$ (D) ${}^{0}_{-1}e$

5. If the charges are doubled and the distance between them is also doubled, then Coulomb's force will be:
(A) double (B) halved (C) remains same (D) four times

6. A rubber ball of radius 2cm has a charge of $5\mu c$ on its surface, which is uniformly distributed, the value of $\vec{E}$ at its centre is:
(A) $10NC^{-1}$ (B) Zero (C) $2.5\ NC^{-1}$ (D) $5x10^{-6}NC^{-1}$

7. Which one of the following relation is correct?
(A) joule=volt x ampere (B) joule=coulomb / volt (C) joule=volt / ampere (D) joule=coulomb x volt

8. In carbon resistors, which colour band indicates the tolerance of $\pm 10\%$?
(A) White (B) Silver (C) Gold (D) Violet

9. For an open circuit, terminal potential difference 'Vt' is:
(A) Vt=2emf (B) Vt=emf (C) Vt>emf (D) Vt<emf

10. An electron travelling at 10^6m/s enters parallel in a magnetic field of 1 tesla, the magnetic force acting on it is:
(A) Zero (B) 10^{-12}N (C) 10^3N (D) 1.6×10^{-13}N

11. When a charged particle is projected opposite to the direction of magnetic field, it experiences a force equal to:
(A) $quB\cos\theta$ (B) $quB\sin 90^o$ (C) quB (D) zero

12. In order to increase the range of voltmeter R_H is:
(A) increased (B) decreased (C) unchanged (D) increased by 4 times

13. Which device permits the flow of D.C?
(A) Capacitor (B) Photocell (C) Inductor (D) transformer

14. For an ideal step up transformer:
(A) $N_p>N_s$ (B) $V_sI_s>V_pI_p$ (C) $V_s<V_p$ (D) $I_s<I_p$

15. When a metal detector comes close to a metal then its frequecy:
(A) becomes double (B) remains same (C) becomes half (D) increases

16. In RLC series circuit, at higher frequencies:
(A) $X_L=X_C$ (B) $X_L>X_C$ (C) $X_L<X_C$ (D) $X_L=0$

17. Which one belongs to trivalent group?
(A) Aluminium (B) Antimoney (C) Phosphorous (D) Arsenic