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HSSC-(P-II)-A/2023

Paper Code	8	4	7	6

Roll No _____ to be filled in by the candidate

(For All Sessions)

Physics (Objective) Rwp-12-2-23 (Group-II)

Time: 20 Minutes Marks: 17

Note: Write Answers to the Questions on the objective answer sheet provided. Four possible answers A, B, C and 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. LDR becomes necessary when op-amplifier is used as:

(A) Comparator (B) Rectifier (C) Inverter (D) Night switch

2. If velocity of body becomes equal to 'C' then its mass becomes:

(A) 0 kg (B) $m = m_0$ (C) $m \to \infty$ (D) $m = {}^{mo}/_{2}$

3. Which one is low energy photon?

(A) Visible light (B) Infrared light (C) Ultraviolet light (D) x-ray

4. In Helium – Neon Laser, the percentage of Helium is:

(A) 75% (B) 65% (C) 60% (D) 85%

5. The number of neutron present in the nucleus is given by:

(A) $N = A - Z$ (B) $N = A + Z$ (C) $N = Z - A$ (D) $N = A \times Z$

6. The binding energy per nucleon is maximum for:

(A) Radium (B) Polonium (C) Iron (D) Helium

7. Electric flux through a closed surface depends upon:

(A) Charge (B) Medium (C) Charge & Medium (D) Geometry

8. The negative of potential gradient is:

(A) Electrostatic force (B) Electric field-intensity (C) Potential difference (D) Electromotive force

9. Charge carrier in electrolyte are:

(A) Positive & negative ion (B) Protons (C) Electron (D) Holes

10. The sum of electric and magnetic force is called:

(A) Maxwell force (B) Lorentz force (C) Newton force (D) Centripetal force

11. Current passing through the coil of galvanometer is:

(A) $\frac{CN\theta}{BA}$ (B) $\frac{NAB\theta}{C}$ (C) $\frac{AN}{BC}$ (D) $\frac{C\theta}{BAN}$

12. Induced emf can be increased by:

(A) Increase resistance of coil (B) Decrease resistance of coil (C) Increase number of turns (D) Decrease magnetic flux

13. The working principle of transformer is:

(A) Self induction (B) Faraday Law (C) Mutual induction (D) Electromagnetic induction

14. The wave form of alternating voltage is a:

(A) Sine curve (B) Tan curve (C) Cotangent curve (D) Cosine curve

15. The main advantage of use of A.C is:

(A) Minimum line losses (B) Long distance (C) Step up to required voltage (D) Step up to required current

16. Which of the following does not go plastic deformation:

(A) Copper (B) Wrought iron (C) Lead (D) Glass

17. The output voltage of rectifier is:

(A) Smooth (B) Pulsating (C) Perfectly direct (D) Alternating