

Physics (Part-II)

(New Course)

Note: There are three sections in this paper i.e. A, B & C.

VERSION : B

- Instructions:
- Please attempt Section-A on the MCQs Answer Sheet only.
 - Only black ball point or marker may be used for shading the relevant circle.
 - Please make sure that there is no cutting, over writing, erasing, or multiple circles shading.

Time Allowed: 20 Minutes

"Section-A"

Marks: 18

Q.1. Choose the correct option i.e. A, B, C or D.

- The circuit in which current and voltage are in phase, the power factor is
(A) 0 (B) 1 (C) -1 (D) 2
- Ampere's Law is applied over any
(A) Surface (B) Closed surface (C) Path (D) Closed path
- The resistance of ideal voltmeter is
(A) Small (B) Large (C) Zero (D) Infinite
- The unit of electric field intensity is
(A) volt/metre (B) newton/coulomb (C) volt . metre (D) None of these
- The unit of electric flux in SI units is
(A) Nm/C^2 (B) NC/m^2 (C) m^2/C^2 (D) Nm^2/C
- Which of the following quantity remain constant in step up transformer?
(A) Current (B) Power (C) Voltage (D) Heat
- Electron volt (eV) is the unit of energy. One electron volt is equal to joules.
(A) 1.6 J (B) $1.6 \times 10^{-19} \text{ J}$ (C) $3.2 \times 10^{-19} \text{ J}$ (D) None of these
- When a wire is stretched and its radius becomes $r/2$, then its resistance will be
(A) 16 R (B) 4 R (C) 2 R (D) 0
- One Weber is equal to
(A) Nm/A (B) NA/m (C) NA^2/m (D) Nm^2/A
- The reciprocal of resistivity of the conductor is known as.....
(A) Resistance (B) Capacitance (C) Conductivity (D) None of these
- The duration of meta-stable state is approximately
(A) 10^{-3} s (B) 10^{-6} s (C) 10^{-8} s (D) 10^{-9} s
- For electromagnetic waves, Maxwell generalized
(A) Gauss's law for magnetism (B) Gauss's law for electricity (C) Faraday's law (D) Ampere's law
- One unified mass scale (1 u) is equal to
(A) 931.5 Mev (B) $1.660 \times 10^{-27} \text{ kg}$ (C) $1.4924 \times 10^{-10} \text{ J}$ (D) All of these
- According to de-Broglie equation which one has smallest wavelength associated with it
(A) Proton (B) Neutron (C) α -particle (D) Electron
- The unit of decay constant " λ " is
(A) m (B) m^{-1} (C) s (D) s^{-1}
- By doubling the absolute temperature of black body, the total energy radiated will change by a factor of:
(A) 0.5 (B) 2 (C) 4 (D) 16
- PN junction when reversed biased act as
(A) Capacitor (B) ON switch (C) Inductor (D) OFF switch
- The power factor of a purely resistive circuit is
(A) Zero (B) Unity (C) Lagging (D) Leading