

# CUET 2026 May 22 Shift 2 Physics

## Question Paper (Memory-Based)

Conducted by National Testing Agency (NTA)



1. A long solenoid has 1000 turns per meter and carries a current of 2A. The magnetic field inside the solenoid is:

$$(\mu_0 = 4\pi \times 10^{-7} \text{ TmA}^{-1})$$

- (A)  $8\pi \times 10^{-4} \text{ T}$
  - (B)  $4\pi \times 10^{-4} \text{ T}$
  - (C)  $2\pi \times 10^{-4} \text{ T}$
  - (D)  $16\pi \times 10^{-4} \text{ T}$
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2. In a series LCR circuit, resonance occurs when:

- (A)  $X_L > X_C$
  - (B)  $X_C > X_L$
  - (C)  $X_L = X_C$
  - (D)  $R = 0$
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3. A semiconductor diode is forward biased. The depletion layer width will:

- (A) Increase
  - (B) Become zero immediately
  - (C) Decrease
  - (D) Remain unchanged
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4. The drift velocity of electrons in a conductor increases when:

- (A) Temperature increases only
- (B) Electric field increases
- (C) Length of conductor increases
- (D) Area of cross-section increases

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**5. The magnetic field at the center of a circular coil carrying current is directly proportional to:**

- (A) Radius of coil
  - (B) Square of radius
  - (C) Current through coil
  - (D) Resistance of wire
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**6. A charged particle enters perpendicular to a uniform magnetic field. The path followed by the particle is:**

- (A) Straight line
  - (B) Parabolic
  - (C) Circular
  - (D) Elliptical
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**7. In an AC circuit, the average value of alternating current over one complete cycle is:**

- (A) Maximum
  - (B) Minimum
  - (C) Infinite
  - (D) Zero
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**8. The forbidden energy gap in conductors is approximately:**

- (A)  $0\text{ eV}$
  - (B)  $1\text{ eV}$
  - (C)  $5\text{ eV}$
  - (D)  $10\text{ eV}$
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**9. The self inductance of a coil depends upon:**

- (A) Number of turns only
- (B) Magnetic permeability of core only

- (C) Geometry of coil and medium
  - (D) Current flowing through coil
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**10. The efficiency of an ideal transformer is:**

- (A) 25%
  - (B) 50%
  - (C) 75%
  - (D) 100%
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