

# CUET 2026 May 30 Shift 1 Physics

## Question Paper (Memory-Based)

Conducted by National Testing Agency (NTA)



### General Instructions

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- (i) The examination will be conducted in Computer-Based Test (CBT) mode.
- (ii) Each question carries +5 marks for correct answer and -1 mark for wrong answer.
- (iii) The total number of questions are 50.
- (iv) Duration of the exam is 1 hour (60 minutes).

1. A galvanometer of resistance  $50\ \Omega$  gives full-scale deflection when a current of  $2\ \text{mA}$  passes through it. The value of shunt resistance required to convert it into an ammeter of range  $2\ \text{A}$  is

- (A)  $0.05\ \Omega$
  - (B)  $0.5\ \Omega$
  - (C)  $5\ \Omega$
  - (D)  $50\ \Omega$
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2. In an AC circuit containing a pure resistor, the phase difference between voltage and current is

- (A)  $90^\circ$
  - (B)  $180^\circ$
  - (C)  $45^\circ$
  - (D)  $0^\circ$
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3. Two coils have mutual inductance  $0.5\ \text{H}$ . If the current in the primary coil changes at the rate of  $4\ \text{A s}^{-1}$ , the induced emf in the secondary coil is

- (A)  $0.5\ \text{V}$
- (B)  $1\ \text{V}$

- (C) 2V  
(D) 4V
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4. Match the electromagnetic waves in Column I with their common applications in Column II.

Column I		Column II	
(A)	Gamma rays	(I)	Radar communication
(B)	X-rays	(II)	Cancer treatment
(C)	Microwaves	(III)	Bone imaging
(D)	Radio waves	(IV)	Broadcasting

Choose the correct answer from the options given below:

- (A) A-II, B-III, C-I, D-IV  
(B) A-I, B-II, C-IV, D-III  
(C) A-II, B-IV, C-I, D-III  
(D) A-III, B-II, C-IV, D-I
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5. According to Bohr's atomic model, the angular momentum of an electron in the  $n^{\text{th}}$  orbit is

- (A)  $\frac{nh}{2\pi}$   
(B)  $\frac{h}{2\pi n}$   
(C)  $\frac{n^2h}{2\pi}$   
(D)  $\frac{h}{n}$
- 

6. A photon has energy 6 eV. The corresponding work function of a metal is 2 eV. The maximum kinetic energy of the emitted photoelectron is

- (A) 2 eV  
(B) 4 eV  
(C) 6 eV  
(D) 8 eV
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7. A long straight conductor carries a current of 10 A. The magnetic field at a point 20 cm away from the conductor is ( $\mu_0 = 4\pi \times 10^{-7} \text{ TmA}^{-1}$ )

- (A)  $1 \times 10^{-5} \text{ T}$
  - (B)  $2 \times 10^{-5} \text{ T}$
  - (C)  $5 \times 10^{-6} \text{ T}$
  - (D)  $4 \times 10^{-5} \text{ T}$
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8. An object is placed 30 cm in front of a concave mirror of focal length 20 cm. The image distance is

- (A)  $-60 \text{ cm}$
  - (B)  $+60 \text{ cm}$
  - (C)  $+30 \text{ cm}$
  - (D)  $-30 \text{ cm}$
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9. In a semiconductor, the conductivity increases with increase in temperature because

- (A) Resistance increases
  - (B) Number of free charge carriers increases
  - (C) Mobility becomes zero
  - (D) Band gap increases
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10. Two capacitors of capacitances  $6 \mu\text{F}$  and  $3 \mu\text{F}$  are connected in series across a battery. The equivalent capacitance of the combination is

- (A)  $9 \mu\text{F}$
  - (B)  $2 \mu\text{F}$
  - (C)  $4.5 \mu\text{F}$
  - (D)  $18 \mu\text{F}$
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