



CUET 2026 May 30 Shift 1 Physics

Question Paper (Memory-Based)

Conducted by National Testing Agency (NTA)

General Instructions

- (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 mA passes through it. The value of shunt resistance required to convert it into an ammeter of range 2 A is

- (A) $0.05\ \Omega$
- (B) $0.5\ \Omega$
- (C) $5\ \Omega$
- (D) $50\ \Omega$

2. In an AC circuit containing a pure resistor, the phase difference between voltage and current is

- (A) 90°
- (B) 180°
- (C) 45°
- (D) 0°

3. Two coils have mutual inductance 0.5 H . If the current in the primary coil changes at the rate of 4 A s^{-1} , the induced emf in the secondary coil is

- (A) 0.5 V
- (B) 1 V

- (C) 2 V
(D) 4 V

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

5. According to Bohr's atomic model, the angular momentum of an electron in the n^{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

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 cm
 - (B) $+60 \text{ cm}$
 - (C) $+30 \text{ cm}$
 - (D) -30 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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