

# CUET 2026 May 26 Shift 2 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. Assertion-Reason Type Question

**Assertion (A):** The magnetic field at the center of a circular current carrying loop is directly proportional to the current flowing through it.

**Reason (R):** According to Biot–Savart’s law, magnetic field produced by a current element is proportional to the current element.

**Choose the correct answer from the options given below:**

- (A) Both Assertion and Reason are true and Reason is the correct explanation of Assertion.
- (B) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
- (C) Assertion is true but Reason is false.
- (D) Assertion is false but Reason is true.

### 2. Match the following electromagnetic waves with their correct energy order.

Column I		Column II	
(A)	Gamma rays	(I)	Lowest frequency
(B)	X-rays	(II)	Highest energy
(C)	Microwaves	(III)	Used in radar communication
(D)	Radio waves	(IV)	Used in medical imaging

Choose the correct answer from the options given below:

- (A) A-II, B-IV, C-III, D-I
  - (B) A-IV, B-II, C-I, D-III
  - (C) A-II, B-I, C-IV, D-III
  - (D) A-III, B-IV, C-II, D-I
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**3. The ratio of de Broglie wavelength of an electron to that of a proton moving with the same kinetic energy is:**

- (A)  $\sqrt{\frac{m_p}{m_e}}$
  - (B)  $\frac{m_p}{m_e}$
  - (C)  $\sqrt{\frac{m_e}{m_p}}$
  - (D) 1
- 

**4. A proton and an alpha particle are accelerated through the same potential difference. The ratio of their kinetic energies will be:**

- (A) 1 : 1
  - (B) 1 : 2
  - (C) 2 : 1
  - (D) 4 : 1
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### 5. Assertion-Reason Type Question

**Assertion (A):** Torque acting on a current loop in a magnetic field is maximum when the plane of the loop is parallel to the magnetic field.

**Reason (R):** Torque on a magnetic dipole is given by:

$$\tau = MB \sin \theta$$

where  $\theta$  is the angle between magnetic moment and magnetic field.

**Choose the correct answer from the options given below:**

- (A) Both Assertion and Reason are true and Reason is the correct explanation of Assertion.

- (B) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.  
(C) Assertion is true but Reason is false.  
(D) Assertion is false but Reason is true.
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**6. The focal length of a concave mirror is 20 cm. If the object is placed at 30 cm from the mirror, the image distance will be:**

- (A) 60 cm  
(B) 30 cm  
(C) 12 cm  
(D) 24 cm
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**7. The magnifying power of a simple microscope increases when:**

- (A) Focal length increases  
(B) Focal length decreases  
(C) Aperture decreases  
(D) Radius of lens increases
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**8. Match the following quantities with their SI units.**

Column I		Column II	
(A)	Magnetic flux	(I)	Tesla
(B)	Magnetic field	(II)	Weber
(C)	Capacitance	(III)	Farad
(D)	Resistance	(IV)	Ohm

Choose the correct answer from the options given below:

- (A) A-II, B-I, C-III, D-IV  
(B) A-I, B-II, C-IV, D-III  
(C) A-III, B-II, C-I, D-IV  
(D) A-IV, B-III, C-II, D-I
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9. A photon has energy 6 eV. Its frequency is approximately:

- (A)  $1.45 \times 10^{15}$  Hz
  - (B)  $6 \times 10^{15}$  Hz
  - (C)  $9 \times 10^{14}$  Hz
  - (D)  $3 \times 10^8$  Hz
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**10. Assertion-Reason Type Question**

**Assertion (A):** In photoelectric effect, stopping potential depends upon frequency of incident radiation.

**Reason (R):** Maximum kinetic energy of emitted electrons increases with frequency.

**Choose the correct answer from the options given below:**

- (A) Both Assertion and Reason are true and Reason is the correct explanation of Assertion.
  - (B) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
  - (C) Assertion is true but Reason is false.
  - (D) Assertion is false but Reason is true.
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