CUET 2026 May 31 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. Two charges $+4\,\mu C$ and $+9\,\mu C$ are separated by a distance of $3\,m$ in vacuum. The electrostatic force between them is $(k = 9 \times 10^9\, N m^2 C^{-2})$

(A) $0.018\,N$

(B) $0.036\,N$

(C) $0.054\,N$

(D) $0.072\,N$

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2. Given below are two statements:

Assertion (A): In a pure inductive AC circuit, current lags voltage by 90°.

Reason (R): An inductor opposes the change in current flowing through it.

Choose the correct answer from the options given below:

(A) Both A and R are true and R is the correct explanation of A

(B) Both A and R are true but R is not the correct explanation of A

(C) A is true but R is false

(D) A is false but R is true

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3. A resistor of resistance $20\,\Omega$ is connected across a $10\,V$ battery. The current flowing through the resistor is

(A) $0.2A$

(B) $0.5A$

(C) $2A$

(D) $5A$

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4. Match the semiconductor devices in Column I with their functions in Column II.

Column I		**Column II**	
(A)	LED	(I)	Voltage Regulation
(B)	Zener Diode	(II)	Light Emission
(C)	Photodiode	(III)	Light Detection
(D)	Solar Cell	(IV)	Converts Solar Energy into Electrical Energy

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-I, C-II, D-IV

(D) A-II, B-IV, C-I, D-III

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5. The energy of an electron in the first Bohr orbit of hydrogen atom is $-13.6\,eV$. The energy of the electron in the third orbit is

(A) $-1.51\,eV$

(B) $-3.4\,eV$

(C) $-13.6\,eV$

(D) $-0.85\,eV$

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6. Given below are two statements:

Assertion (A): Electromagnetic waves can travel through vacuum.

Reason (R): Electromagnetic waves consist of oscillating electric and magnetic fields.

Choose the correct answer from the options given below:

(A) Both A and R are true and R is the correct explanation of A

(B) Both A and R are true but R is not the correct explanation of A

(C) A is true but R is false

(D) A is false but R is true

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7. A convex lens has a focal length of $20\,cm$. An object is placed $30\,cm$ from the lens. The image distance is

(A) $60\,cm$

(B) $30\,cm$

(C) $20\,cm$

(D) $15\,cm$

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8. Match the following electromagnetic waves with their applications.

Column I		**Column II**	
(A)	Gamma Rays	(I)	Radar Communication
(B)	X-rays	(II)	Cancer Treatment
(C)	Microwaves	(III)	Medical 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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9. A photon of wavelength $500\,nm$ is incident on a metal surface. The energy of the photon is approximately $(h = 6.63 \times 10^{-34}\,Js,\ c = 3 \times 10^{8}\,m/s)$

(A) $1.99 \times 10^{-19}\,J$

(B) $3.98 \times 10^{-19}\,J$

(C) $5.97 \times 10^{-19}\,J$

(D) $7.96 \times 10^{-19}\,J$

10. Given below are two statements:

Assertion (A): In a nuclear reactor, control rods are used to control the rate of fission reaction.

Reason (R): Control rods absorb excess neutrons produced during fission.

Choose the correct answer from the options given below:

(A) Both A and R are true and R is the correct explanation of A

(B) Both A and R are true but R is not the correct explanation of A

(C) A is true but R is false

(D) A is false but R is true