

CUET PG 2026 Physics Question Paper(Memory Based)

Time Allowed :1 Hours 30 minutes	Maximum Marks :300	Total Questions :75
----------------------------------	--------------------	---------------------

General Instructions

1. The exam lasts 90 minutes (1 hour 30 minutes).
2. There are 75 Multiple Choice Questions (MCQs) to be answered.
3. +4 marks for every correct answer. -1 mark (negative marking) for every incorrect answer. 0 marks for unanswered or un-attempted questions.
4. For any discrepancy in questions, the English version is considered final (except for language-specific papers).
5. Click one of the four options to choose an answer.
6. You must click "Save & Next" to confirm your response. Only saved answers are considered for evaluation.
7. Use "Mark for Review & Next" to flag a question for later. You can unselect or change your answer using the "Clear Response" button.
8. All calculations must be done on the Rough Sheets provided at the centre. These must be returned to the invigilator after the exam.

1. What is the value of the line integral of a magnetic field around a closed loop according to Ampère's Circuital Law?

- (A) 0
- (B) $\mu_0 I$
- (C) $\frac{I}{\mu_0}$
- (D) $B \times I$

2. A particle of mass m moves in a central force field $F(r)$. Which physical quantity remains conserved during this motion?

- (A) Linear momentum
- (B) Angular momentum
- (C) Kinetic energy
- (D) Velocity

3. What is the de Broglie wavelength of an electron accelerated through a potential difference of V volts?

- (A) $\frac{h}{mv}$
 - (B) $\frac{h}{\sqrt{2meV}}$
 - (C) $\frac{h}{eV}$
 - (D) $\sqrt{\frac{2eV}{m}}$
-

4. In a classic Young's Double Slit Experiment, how does the fringe width change if the entire apparatus is immersed in water?

- (A) Fringe width increases
 - (B) Fringe width decreases
 - (C) Fringe width remains unchanged
 - (D) Fringe width becomes infinite
-

5. Which Maxwell equation represents the non-existence of magnetic monopoles?

- (A) $\nabla \cdot \vec{E} = \frac{\rho}{\epsilon_0}$
 - (B) $\nabla \cdot \vec{B} = 0$
 - (C) $\nabla \times \vec{E} = -\frac{\partial \vec{B}}{\partial t}$
 - (D) $\nabla \times \vec{B} = \mu_0 \vec{J} + \mu_0 \epsilon_0 \frac{\partial \vec{E}}{\partial t}$
-

6. For a thermodynamic system undergoing an adiabatic process, what is the relationship between pressure P and volume V ?

- (A) $PV = \text{constant}$
 - (B) $P/V = \text{constant}$
 - (C) $PV^\gamma = \text{constant}$
 - (D) $P^2V = \text{constant}$
-

7. What is the energy of the ground state of a hydrogen atom according to the Bohr model?

- (A) -13.6 eV
 - (B) -3.4 eV
 - (C) -1.51 eV
 - (D) 0 eV
-

8. In a p-n junction diode, what happens to the width of the depletion layer under reverse bias?

- (A) It decreases
 - (B) It increases
 - (C) It remains constant
 - (D) It becomes zero
-

9. What is the Boolean expression for a two-input NAND gate?

- (A) $Y = A + B$
 - (B) $Y = AB$
 - (C) $Y = \overline{AB}$
 - (D) $Y = \overline{A + B}$
-

10. A frame of reference moving with constant velocity relative to an inertial frame is also known as what?

- (A) Non-inertial frame
 - (B) Accelerated frame
 - (C) Inertial frame
 - (D) Rotating frame
-

11. Which phenomenon confirms the transverse nature of electromagnetic waves?

- (A) Interference
 - (B) Diffraction
 - (C) Polarization
 - (D) Reflection
-

12. What is the relation between the group velocity and phase velocity in a non-dispersive medium?

- (A) $v_g > v_p$
 - (B) $v_g < v_p$
 - (C) $v_g = v_p$
 - (D) $v_g = 2v_p$
-

13. According to the Special Theory of Relativity, what happens to the length of an object as its velocity approaches the speed of light?

- (A) It increases
- (B) It decreases (length contraction)

- (C) It remains unchanged
 - (D) It becomes infinite
-

14. Which statistical distribution describes the behavior of identical, indistinguishable particles with half-integral spin?

- (A) Maxwell–Boltzmann distribution
 - (B) Bose–Einstein distribution
 - (C) Fermi–Dirac distribution
 - (D) Gaussian distribution
-

15. What is the physical significance of the "Quality Factor" (Q -factor) in an LCR resonant circuit?

- (A) It represents the resistance of the circuit
 - (B) It measures the sharpness of resonance
 - (C) It determines the supply voltage
 - (D) It gives the current amplitude directly
-