

MHT CET 2026 April 21 Shift 1

Question Paper (Memory Based)

Conducted by CET Cell, Maharashtra



General Instructions

- (i) **Duration:** The total duration of the examination is 3 hours (180 minutes).
- (ii) **Total Marks:** The complete paper carries a maximum of 200 marks.
- (iii) **Structure:** The paper has 3 Sections:
 - **Section A:** 50 Multiple Choice Questions (Physics)
 - **Section B:** 50 Multiple Choice Questions (Chemistry)
 - **Section C:** 100 Multiple Choice Questions (Biology)
- (iv) **Compulsory Questions:** All 200 questions are compulsory.
- (v) Each question has four options. Only **one** option is correct.
- (vi) **Right Answer:** Physics (+1 marks), Chemistry (+1 marks) and Biology(+1 marks).
- (vii) **Incorrect Answer:** (No Negative marking).
- (viii) **Unanswered/Marked for Review:** 0 marks.

1. What is the phenotypic ratio of a dihybrid cross in the F_2 generation?

- (A) 3 : 1
- (B) 1 : 2 : 1
- (C) 9 : 3 : 3 : 1
- (D) 1 : 1 : 1 : 1

2. Identify the "molecular scissors" used to cut DNA at specific sequences.

- (A) DNA Ligase
- (B) DNA Polymerase

- (C) Restriction Enzymes
 - (D) RNA Polymerase
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3. Which hormone is responsible for apical dominance in plants?

- (A) Gibberellin
 - (B) Cytokinin
 - (C) Auxin
 - (D) Ethylene
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4. Which antibody is most abundant in human colostrum (initial breast milk)?

- (A) IgG
 - (B) IgM
 - (C) IgA
 - (D) IgE
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5. In an ecosystem, which ecological pyramid is always upright and never inverted?

- (A) Pyramid of Biomass
 - (B) Pyramid of Numbers
 - (C) Pyramid of Energy
 - (D) Pyramid of Producers
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6. What is the ratio of escape velocity to orbital velocity?

- (A) 1 : 1
 - (B) 2 : 1
 - (C) $\sqrt{2} : 1$
 - (D) $1 : \sqrt{2}$
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7. Find the moment of inertia of a solid sphere about its diameter.

- (A) $\frac{2}{3}MR^2$
 - (B) $\frac{2}{5}MR^2$
 - (C) $\frac{1}{2}MR^2$
 - (D) $\frac{3}{5}MR^2$
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8. If the distance between two charges is doubled, the Coulomb force becomes:

- (A) Twice
 - (B) Half
 - (C) One-fourth
 - (D) Four times
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9. What is the de Broglie wavelength of a particle at rest?

- (A) Zero
 - (B) Infinite
 - (C) One
 - (D) Undefined
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10. The working of an optical fiber is based on which phenomenon?

- (A) Refraction
 - (B) Diffraction
 - (C) Total Internal Reflection
 - (D) Interference
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11. What is the hybridization of carbon in an Ethyne (C_2H_2) molecule?

- (A) sp^3
 - (B) sp^2
 - (C) sp
 - (D) sp^3d
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12. Name the linkage that holds amino acids together in a protein.

- (A) Glycosidic bond
 - (B) Ester bond
 - (C) Peptide bond
 - (D) Hydrogen bond
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13. Which element has the highest electronegativity in the periodic table?

- (A) Oxygen
 - (B) Chlorine
 - (C) Fluorine
 - (D) Nitrogen
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14. What is the product when Phenol reacts with neutral Ferric Chloride?

- (A) Green precipitate
 - (B) Blue complex
 - (C) Violet colored complex
 - (D) Colorless solution
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15. In a BCC (Body-Centered Cubic) unit cell, what is the coordination number?

- (A) 4
 - (B) 6
 - (C) 8
 - (D) 12
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