

MHT CET 2026 April 23 Shift 1

Question Paper with Solutions

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 B:** 50 Multiple Choice Questions (Biology).
- (iv) **Compulsory Questions:** All 150 questions are compulsory.
- (v) Each question has four options. Only **one** option is correct.
- (vi) **Correct Answer:** +1 marks.
- (vii) **Incorrect Answer:** (No Negative marking).
- (viii) **Unanswered/Marked for Review:** 0 marks.

1. Identify the special tissue in the epiphytic roots of orchids that absorbs atmospheric moisture.

- (A) Cortex
- (B) Velamen
- (C) Endodermis
- (D) Pericycle

2. Which organism causes typhoid fever?

- (A) Escherichia coli
 - (B) Vibrio cholerae
 - (C) Salmonella typhi
 - (D) Staphylococcus aureus
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3. How many times does oxidation occur in the Krebs cycle?

- (A) Two times
 - (B) Three times
 - (C) Four times
 - (D) Six times
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4. What is the name for the movement of cytoplasm within a cell?

- (A) Diffusion
 - (B) Osmosis
 - (C) Cytoplasmic streaming (Cyclosis)
 - (D) Active transport
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5. What is the SI unit of magnetic induction?

- (A) Weber (Wb)
 - (B) Tesla (T)
 - (C) Henry (H)
 - (D) Coulomb (C)
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6. State the formula for the safety speed of a vehicle on a curved banked road.

- (A) $v = \sqrt{rg \sin \theta}$
- (B) $v = \sqrt{rg \cos \theta}$
- (C) $v = \sqrt{rg \tan \theta}$
- (D) $v = \sqrt{\frac{g}{r \tan \theta}}$

7. What is the unit of the ratio L/R where L is inductance and R is resistance?

- (A) Ampere
- (B) Second
- (C) Ohm
- (D) Volt

8. How does the maximum kinetic energy of photoelectrons relate to wavelength (λ)?

- (A) $K.E \propto \lambda$
- (B) $K.E \propto \lambda^2$
- (C) $K.E \propto \frac{1}{\lambda}$
- (D) $K.E \propto \sqrt{\lambda}$

9. Calculate the moment of inertia for two spheres of radius 10 cm placed 20 cm apart.

- (A) $\frac{7}{5}MR^2$
- (B) $\frac{14}{5}MR^2$
- (C) $\frac{9}{5}MR^2$
- (D) $2MR^2$

10. What is the IUPAC name for Acetone?

- (A) Propanal
- (B) Propan-1-one
- (C) Propan-2-one
- (D) Butan-2-one

11. What is the IUPAC name for Glyceraldehyde?

- (A) 1,2,3-trihydroxypropane
- (B) 2,3-dihydroxypropanal

- (C) 1,3-dihydroxypropanone
(D) 2-hydroxypropanal
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12. What is the approximate magnetic moment of Mn^{2+} ?

- (A) 4.9 BM
(B) 5.9 BM
(C) 6.9 BM
(D) 3.9 BM
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13. What product is formed when Phenol reacts with concentrated Nitric acid?

- (A) Nitrobenzene
(B) o-Nitrophenol
(C) Picric acid
(D) Benzoic acid
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14. What is the oxidation state of Chlorine in Cl_2O_7 ?

- (A) +3
(B) +5
(C) +7
(D) -1
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