

# MHT CET 2026 April 22 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. Which of the following is a soft metal?

- (A) Iron
- (B) Sodium
- (C) Aluminium
- (D) Copper

2. For a weak base of concentration  $C$  and degree of dissociation  $\alpha$ , what is the correct relation between  $K_b$  and  $C$ ?

- (A)  $K_b = C\alpha$

(B)  $K_b = C\alpha^2$

(C)  $K_b = \frac{\alpha}{C}$

(D)  $K_b = \frac{C}{\alpha^2}$

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**3. A carrier daughter ( $X^N X^c$ ) of a colour blind father marries a normal male ( $X^N Y$ ). What is the probability of a colour blind son?**

(A) 0%

(B) 25%

(C) 50%

(D) 75%

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**4. Outer layer of microspore is made up of:**

(A) Cellulose

(B) Pectin

(C) Sporopollenin

(D) Lignin

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**5. Special type of roots present in epiphytic plants are:**

(A) Prop roots

(B) Pneumatophores

(C) Clinging roots

(D) Velamen roots

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**6. The unwinding of DNA during replication is done by:**

(A) DNA polymerase

(B) Ligase

(C) Helicase

(D) Primase

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**7. Which of the following is a correct pair of disease and cause?**

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- (A) Malaria – Virus
  - (B) Typhoid – Bacteria
  - (C) Tuberculosis – Fungi
  - (D) AIDS – Bacteria
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**8. Which of the following is NOT a characteristic of Turner's syndrome?**

- (A) Webbed neck
  - (B) Stunted growth
  - (C) Gynaecomastia
  - (D) Rudimentary ovaries
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**9. A uniform disc of mass  $M$  and radius  $R$  is rotating about an axis through its center and perpendicular to its plane. What is its moment of inertia?**

- (A)  $MR^2$
  - (B)  $\frac{1}{4}MR^2$
  - (C)  $\frac{1}{2}MR^2$
  - (D)  $2MR^2$
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**10. What is the SI unit of Magnetic Induction?**

- (A) Weber
  - (B) Tesla
  - (C) Henry
  - (D) Coulomb
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**11. A charge of  $2\mu\text{C}$  is placed in an electric field of intensity  $4 \times 10^3 \text{ N/C}$ . What is the force experienced by the charge?**

- (A)  $8 \times 10^{-6} \text{ N}$
  - (B)  $8 \times 10^{-3} \text{ N}$
  - (C)  $8 \times 10^{-2} \text{ N}$
  - (D)  $8 \text{ N}$
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12. Which law states that magnetic susceptibility is inversely proportional to absolute temperature?

- (A) Faraday's Law
  - (B) Curie's Law
  - (C) Lenz's Law
  - (D) Gauss's Law
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13. Potential energy of a particle performing linear S.H.M is  $0.1\pi^2x^2$  joule. If the mass is 20 g, what is the frequency of S.H.M?

- (A) 0.5 Hz
  - (B) 1 Hz
  - (C) 2 Hz
  - (D) 4 Hz
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14. What are the monomers of Bakelite?

- (A) Ethylene and Styrene
  - (B) Phenol and Formaldehyde
  - (C) Vinyl chloride and Ethylene
  - (D) Urea and Formaldehyde
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15. What is the coordination number of an atom in a Face-Centered Cubic (FCC) crystal structure?

- (A) 6
  - (B) 8
  - (C) 12
  - (D) 4
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16. Which reagent is typically used in Rosenmund reduction to convert acyl chlorides to aldehydes?

- (A)  $LiAlH_4$
- (B)  $H_2/Pd - BaSO_4$

(C)  $NaBH_4$

(D)  $KMnO_4$

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**17. What is the product obtained at the cathode during the electrolysis of molten NaCl?**

(A) Chlorine gas

(B) Sodium metal

(C) Sodium hydroxide

(D) Hydrogen gas

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**18. What is the Van't Hoff factor ( $i$ ) for a completely dissociated solution of  $K_2SO_4$  in water?**

(A) 1

(B) 2

(C) 3

(D) 4

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**19. Which mosquito vector is responsible for transmitting Filariasis (*Wuchereria bancrofti*)?**

(A) Anopheles mosquito

(B) Aedes mosquito

(C) Culex mosquito

(D) Mansonia mosquito

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**20. What is the normal Tidal Volume (TV) in a healthy adult human?**

(A) 200 mL

(B) 500 mL

(C) 1000 mL

(D) 2000 mL

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**21. When does the extrusion of the second polar body from the egg nucleus occur?**

(A) Before entry of sperm

(B) During fertilization

(C) After entry of sperm but before fertilization

(D) After embryonic development begins

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**22. Which hormone dilates blood vessels to reduce blood pressure, acting opposite to Angiotensin II?**

- (A) Aldosterone
  - (B) Renin
  - (C) Atrial Natriuretic Factor (ANF)
  - (D) Vasopressin
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