



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:** 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) **Correct Answer:** +1 marks.
- (vii) **Incorrect Answer:** (No Negative marking).
- (viii) **Unanswered/Marked for Review:** 0 marks.

1. Which animal possesses the most primitive nervous system?

- (A) Earthworm
 - (B) Hydra
 - (C) Frog
 - (D) Human
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2. What is the oxidation state of Chlorine in Cl_2O_7 ?

- (A) +1
 - (B) +3
 - (C) +5
 - (D) +7
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3. Which plant hormone is primarily responsible for apical dominance?

- (A) Cytokinin
 - (B) Auxin
 - (C) Gibberellin
 - (D) Ethylene
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4. What is the hybridization of the carbon atom in CO_2 ?

- (A) sp^3
 - (B) sp^2
 - (C) sp
 - (D) sp^3d
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5. If the distance between two charges is doubled, what happens to the Coulomb force?

- (A) It becomes double
 - (B) It becomes four times
 - (C) It becomes half
 - (D) It becomes one-fourth
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6. Which antibody is most abundant in human colostrum?

- (A) IgG
 - (B) IgA
 - (C) IgM
 - (D) IgE
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7. What is the interaction where one species is harmed and the other is unaffected?

- (A) Mutualism
 - (B) Commensalism
 - (C) Amensalism
 - (D) Parasitism
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8. What is the volume of air remaining in the lungs after forceful expiration called?

- (A) Tidal Volume
 - (B) Vital Capacity
 - (C) Residual Volume (RV)
 - (D) Inspiratory Capacity
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9. What is the stability order of carbocations?

- (A) Primary > Secondary > Tertiary
 - (B) Secondary > Primary > Tertiary
 - (C) Tertiary > Secondary > Primary
 - (D) Primary > Tertiary > Secondary
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10. What is the formula for centripetal acceleration?

- (A) $a = \frac{v}{r}$
 - (B) $a = \frac{v^2}{r}$
 - (C) $a = vr$
 - (D) $a = \frac{r}{v^2}$
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11. Which law states that magnetic susceptibility is inversely proportional to absolute temperature?

- (A) Ohm's Law
 - (B) Curie's Law
 - (C) Faraday's Law
 - (D) Gauss's Law
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12. What is the product of the reaction between Phenol and concentrated HNO_3 ?

- (A) Nitrobenzene
 - (B) Picric Acid (2,4,6-trinitrophenol)
 - (C) Aniline
 - (D) Benzaldehyde
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13. What is the Van't Hoff factor (i) for a non-electrolyte?

- (A) 0
 - (B) 1
 - (C) 2
 - (D) 3
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14. What is the SI unit of Magnetic Induction?

- (A) Weber
 - (B) Tesla (T)
 - (C) Henry
 - (D) Ampere
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15. Which part of the brain is responsible for maintaining posture and equilibrium?

- (A) Cerebrum
 - (B) Cerebellum
 - (C) Medulla Oblongata
 - (D) Hypothalamus
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