

CUET 2026 May 20 Shift 2 Chemistry

Question Paper (Memory-Based)

Conducted by National Testing Agency (NTA)



General Instructions

- (i) The examination will be conducted in Computer-Based Test (CBT) mode.
- (ii) Each question carries +5 marks for correct answer and -1 mark for wrong answer.
- (iii) The total number of questions are 50.
- (iv) Duration of the exam is 1 hour (60 minutes).

1. In the actinoid series, which oxidation state is the most stable for most actinoids?

- (A) +2
- (B) +3
- (C) +4
- (D) +6

2. The magnetic moment of a complex having 3 unpaired electrons is closest to:

$$\mu = \sqrt{n(n+2)} \text{ BM}$$

- (A) 1.73 BM
- (B) 2.84 BM
- (C) 3.87 BM
- (D) 4.90 BM

3. Semicarbazide is commonly used to identify:

- (A) Alcohols
- (B) Carboxylic acids

- (C) Aldehydes and ketones
(D) Amines
-

4. Aldol condensation is shown by compounds containing:

- (A) Only carbonyl group
(B) α -hydrogen and carbonyl group
(C) Triple bond
(D) Ether linkage
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5. Match the following reaction orders with their units of rate constant:

Reaction Order	Units of k
(A) Zero order	(I) $L mol^{-1} s^{-1}$
(B) First order	(II) $mol L^{-1} s^{-1}$
(C) Second order	(III) s^{-1}

Choose the correct option:

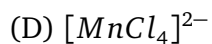
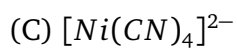
- (A) A–II, B–III, C–I
(B) A–III, B–II, C–I
(C) A–I, B–II, C–III
(D) A–II, B–I, C–III
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6. For a first-order reaction, the half-life is given by $t_{1/2} = \frac{0.693}{k}$. Which conclusion is correct?

- (A) Depends on initial concentration
(B) Is inversely proportional to k
(C) Is directly proportional to concentration
(D) Increases with time
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7. Which of the following complexes is diamagnetic?

- (A) $[Fe(H_2O)_6]^{3+}$
(B) $[CoF_6]^{3-}$
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8. The shape of $[Ni(CN)_4]^{2-}$ is:

(A) Tetrahedral

(B) Square planar

(C) Octahedral

(D) Trigonal bipyramidal

9. The rate of a reaction doubles when concentration of reactant is doubled. The order of reaction is:

(A) Zero order

(B) First order

(C) Second order

(D) Third order

10. Which statement about physical chemistry numericals in CUET is generally correct?

(A) Mostly lengthy derivations

(B) Assertion-reason type only

(C) Direct formula-based numericals

(D) Only graph-based questions
