

# CUET 2026 May 26 Shift 2 Chemistry



## Question Paper (Memory-Based)

Conducted by National Testing Agency (NTA)

1. According to Collision Theory, the rate constant of a chemical reaction depends on activation energy. If the activation energy of a reaction increases, then the value of the rate constant  $k$  will:

- (A) Increase exponentially
  - (B) Remain unchanged
  - (C) Decrease exponentially
  - (D) Become zero
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2. For a first order reaction, the time required for completion of 75% of the reaction is 40 minutes. The half-life of the reaction is:

- (A) 10 min
  - (B) 20 min
  - (C) 40 min
  - (D) 80 min
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3. The standard electrode potential of zinc electrode is  $-0.76\text{ V}$  and that of copper electrode is  $+0.34\text{ V}$ . The standard EMF of the Daniell cell is:

- (A)  $0.42\text{ V}$
  - (B)  $1.10\text{ V}$
  - (C)  $0.76\text{ V}$
  - (D)  $1.52\text{ V}$
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4. The Nernst equation for a half-cell reaction at  $298\text{ K}$  is:

- (A)  $E = E^\circ - \frac{0.0591}{n} \log Q$
- (B)  $E = E^\circ + \frac{0.0591}{n} \log Q$

$$(C) E = E^\circ - \frac{n}{0.0591} \log Q$$

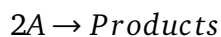
$$(D) E = E^\circ + \frac{n}{0.0591} \log Q$$

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5. The violet colour of  $KMnO_4$  solution is due to:

- (A)  $d - d$  transition
  - (B) Charge transfer transition
  - (C) Presence of unpaired electrons
  - (D) Hybridization
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6. For the reaction:



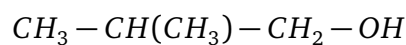
the rate law is:

$$\text{Rate} = k[A]^2$$

If the concentration of A is doubled, the rate of reaction will become:

- (A) Doubled
  - (B) Four times
  - (C) Half
  - (D) Unchanged
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7. The IUPAC name of the compound



is:

- (A) Propan-1-ol
  - (B) 2-Methylpropan-1-ol
  - (C) Butan-2-ol
  - (D) 2-Methylpropan-2-ol
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8. The number of sigma ( $\sigma$ ) and pi ( $\pi$ ) bonds respectively in ethene molecule are:

- (A)  $4\sigma$ ,  $1\pi$
  - (B)  $5\sigma$ ,  $1\pi$
  - (C)  $6\sigma$ ,  $1\pi$
  - (D)  $5\sigma$ ,  $2\pi$
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9. The hybridization of carbon atom in  $CH_4$  molecule is:

- (A)  $sp$
  - (B)  $sp^2$
  - (C)  $sp^3$
  - (D)  $dsp^2$
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10. Which of the following solutions will conduct electricity most effectively?

- (A) Glucose solution
  - (B) Urea solution
  - (C) Sodium chloride solution
  - (D) Sugar solution
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