CUET 2026 May 30 Shift 2 Chemistry

Question Paper (Memory-Based)

Conducted by National Testing Agency (NTA)

1. Cumene is industrially used for the preparation of phenol. During the manufacture of phenol from cumene, which of the following compounds is obtained as a valuable by-product?

(A) Acetaldehyde

(B) Acetone

(C) Formaldehyde

(D) Benzaldehyde

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2. An organic compound gives a positive semicarbazide test and on reduction produces propan-2-ol. The compound is:

(A) Propanal

(B) Propanone

(C) Ethanal

(D) Methanal

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3. Consider the following reaction sequence:

$$2CH_3CHO \xrightarrow{\text{Dil. NaOH}} X$$

$$X \xrightarrow{\Delta} Y$$

The major product Y formed in the above reaction is:

(A) Ethanol

(B) Butanal

(C) Crotonaldehyde

(D) Acetic acid

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4. The magnetic moment of a transition metal complex is found to be 4.90 BM. The number of unpaired electrons present is:

(A) 2

(B) 3

(C) 4

(D) 5

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5. Which of the following statements regarding actinoids is correct?

(A) All actinoids show only +3 oxidation state

(B) Actinoids exhibit a wider range of oxidation states than lanthanoids

(C) Actinoids are less radioactive than lanthanoids

(D) Actinoids do not form complexes

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6. For a second-order reaction, the unit of rate constant is:

(A) s^{-1}

(B) $mol\, L^{-1}s^{-1}$

(C) $L\, mol^{-1}s^{-1}$

(D) $L^2mol^{-2}s^{-1}$

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7. Which reagent converts phenol into salicylaldehyde?

(A) Reimer-Tiemann reagent

(B) Tollen's reagent

(C) Fehling solution

(D) Lucas reagent

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8. Which of the following complexes is diamagnetic?

(A) $[Fe(H_2O)_6]^{2+}$

(B) $[Ni(CN)_4]^{2-}$

(C) $[Mn(H_2O)_6]^{2+}$

(D) $[CoF_6]^{3-}$

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9. Which reagent is used to distinguish between ethanal and propanone?

(A) Tollen's reagent

(B) Sodium hydroxide

(C) Ethanol

(D) Acetic acid

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10. The major product obtained when benzene diazonium chloride is heated with water is:

(A) Chlorobenzene

(B) Phenol

(C) Benzaldehyde

(D) Benzoic acid
