

Paper Code:

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ESKPXII-XXVI (I)
CHEMISTRY PART-II

Time Allowed: 3 Hrs

Marks: 85

Note: There are **Three Sections** in this paper i.e. A, B and C. Attempt Section-A and return it to the Superintendent within the given time. No marks will be awarded for **Cutting, Erasing and Overwriting**.

Mobile Phone is strictly prohibited in Examination Hall.

Time: 20 Minutes

SECTION "A"

Marks: 18

Q.1. Choose the correct option and shade one of (A, B, C, D) in the given **Bubble Answer Sheet**.

- i. The general formula of peroxides of group-IA elements is:
(A) M_2O (B) MO_2 (C) M_2O_2 (D) MO_2
- ii. The pair of group-IIA elements which form peroxides is:
(A) Be and Mg (B) Mg and Ca (C) Ca and Sr (D) Sr and Ba
- iii. $PbCl_2$ is more soluble in:
(A) cold water (B) hot water (C) normal water (D) sea water
- iv. The geometry of $[Ag(NH_3)_2]^+$ is:
(A) tetrahedral (B) square planar (C) octahedral (D) linear
- v. The functional group present in aldehydes is:
(A) $-COOH$ (B) $-OH$ (C) $-NH_2$ (D) $-CHO$
- vi. Enantiomers are:
(A) identical compounds (B) superimposable mirror images (C) nonsuperimposable images (D) diastereomers
- vii. A substitution reaction initiated by electrophile is called:
(A) free radical substitution reaction (B) electrophilic substitution reaction (C) nucleophilic substitution reaction (D) only substitution reaction
- viii. S_N1 mechanism is generally favored by:
(A) polar protic solvents (B) polar aprotic solvents (C) polar solvents (D) non-polar solvents
- ix. The C-O-H bond angle in methyl alcohol is:
(A) 104.5° (B) 107.5° (C) 108.9° (D) 109.5°
- x. Alcohols are:
(A) non-reactive compounds (B) reactive compounds (C) stable compounds (D) non-polar compounds
- xi. Aliphatic aldehydes do not exhibit:
(A) chain isomerism (A) positional isomerism (A) functional group isomerism (A) metamerism
- xii. The carboxylic acid which does not exhibit chain isomerism is:
(A) propanoic acid (B) butanoic acid (C) pentanoic acid (D) hexanoic acid
- xiii. Most of the enzymes have optimum activities in the range of:
(A) 5-7 (B) 5-8 (C) 5-9 (D) 5-11
- xiv. The carrier of fat-soluble vitamins in the body is:
(A) carbohydrates (B) proteins (C) lipids (D) vitamins
- xv. Nylon is used in the manufacture of:
(A) blood bags (B) gramophones records (C) medical tubing (D) stockings
- xvi. The production of NO from stable molecules of N_2 and O_2 occurs in:
(A) motor vehicle's combustion engine (B) sunlight (C) ozone (D) smoke
- xvii. The combustion of coal and the smelting of metals are the main sources of:
(A) carbon monoxide (B) carbon dioxide (C) sulphur dioxide (D) nitrogen dioxide
- xviii. Higher the peak of a species in a mass spectrum, higher will be its:
(A) atomic mass (B) molecular mass (C) fragments (D) abundance