

Time Allowed: 3 Hrs

Marks: 65

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: 15 Minutes

SECTION "A"**Marks: 12**

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

i. Which symbol is used to show a reversible reaction?

Ⓐ →

Ⓑ ===

Ⓒ ⇌

Ⓓ ←

ii. When HCl dissolves in water, it produces:

Ⓐ OH⁻ ionsⒷ H⁺ ions + Cl⁻ ionsⒸ Na⁺ ionsⒹ Cl⁻ ions

iii. Dimethyl ether (CH₃OCH₃) and ethanol (C₂H₅OH) both have same:

Ⓐ Structural formula

Ⓑ Condensed formula

Ⓒ Lewis dot-cross formula

Ⓓ Molecular formula

iv. Which one of the following is an example of a straight-chain alkane?

Ⓐ Isobutane

Ⓑ Neopentane

Ⓒ n-butane

Ⓓ cyclopentane

v. What is the correct structural formula of butene (C₄H₈)?

Ⓐ CH₃ - CH - CH₂ - CH₃Ⓑ CH₂ = CH - CH₂ - CH₃Ⓒ CH ≡ C - CH₂ - CH₃Ⓓ CH₂ - CH = CH - CH₃

vi. Which of the following is a plant source of protein?

Ⓐ Egg

Ⓑ Fish

Ⓒ Pulses

Ⓓ Milk

vii. Temperature decreases from 15°C to -56°C with height in the:

Ⓐ Thermosphere

Ⓑ Mesosphere

Ⓒ Stratosphere

Ⓓ Troposphere

viii. Normal rainwater has a pH of about:

Ⓐ 7

Ⓑ 6

Ⓒ 5.6

Ⓓ 4

ix. Soft water is good for:

Ⓐ Washing clothes

Ⓑ Making scale in kettle

Ⓒ Causing scum with soap

Ⓓ Hardening water

x. Boiling water removes hardness because:

Ⓐ It kills bacteria

Ⓑ It converts bicarbonates into insoluble carbonates

Ⓒ It increases solubility of salts

Ⓓ It adds oxygen

xi. The impurities attached with the ores are called:

Ⓐ Ore

Ⓑ Mineral

Ⓒ Gangue

Ⓓ Sand

xii. Hydrogen makes up approximately what percentage of urea?

Ⓐ 46.67%

Ⓑ 26.67%

Ⓒ 20.00%

Ⓓ 6.66%