

CHEMISTRY Part-II Time: 20 Minutes Multiple Choice Questions 01 Mark for each	Paper Code ● ② ③	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Roll No. of the Student</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> </table> Serial No. Of the Answer Book _____	Roll No. of the Student					
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SECTION-A

Note:

- 1) Attempting all MCQs is compulsory. This paper along with the OMR sheet must be returned to the superintendent after due time.
- 2) Fill the circle (A)(B)(C)(D), which one is correct with blue or black ball point, in this sheet as well as in separate OMR Sheet like ●
- 3) If more than one circle in the OMR sheet is filled then no credit will be given to such answer.

- I.i. The measurement of the tendency of an atom to attract electron (s) or shared pair of electrons towards it self is called _____.
 (A) Electro positivity (B) Electro negativity (C) Shielding effect (D) Electron affinity
- ii. Which of the following has giant structure.
 (A) SiO₂ (B) P₄O₁₀ (C) SO₂ (D) Si₂O₇
- iii. The coordination compound [CuCl₄]²⁻ exists in shape _____.
 (A) Square planner (B) Rhombic (C) Tetrahedral (D) Octahedral
- iv. Acidified potassium acts as agent _____.
 (A) Oxidizing (B) Reducing (C) Bleaching (D) Coloured
- v. Pyridine belongs to _____ compound.
 (A) Alicyclic (B) Hydrocarbons (C) Homocyclic (D) Hetrocyclic
- vi. The self-linkage of carbon atoms to form chain & ring compound is called _____.
 (A) Carbonation (B) Catenation (C) Sublimation (D) Hydrogenation
- vii. In conjugated compound the carbon atom _____ hybridized.
 (A) SP-SP (B) SP²-SP² (C) Sp³-Sp³ (D) Sdp²-Sdp²
- viii. The isomerism which is exhibited due to unequal distribution of carbon atoms on either side of function group _____.
 (A) Metamerism (B) Tautomerism (C) Functional group position (D) Position isomerism
- ix. Tertiary alkyl halide undergoes _____ reaction.
 (A) E¹ (B) E² (C) SN¹ (D) SN²
- x. Reaction of Grignard reagent with formaldehyde give _____.
 (A) Primary alcohol (B) Secondary alcohol (C) Tertiary alcohol (D) Carboxylic acid
- xi. Isopropyl benzene is also called _____.
 (A) Pyric acid (B) Nylon (C) Cumene (D) Phenol
- xii. Williamson's synthesis is used to prepare _____.
 (A) Aldehyde (B) Ketones (C) Ester (D) Ether
- xiii. Ketons are less reactive than aldehyde towards nucleophiles attack due to _____.
 (A) Steric effect (B) Electronic effect (C) Resonance effect (D) Both A & B
- xiv. Carboxylic acid can be prepared by the action of Grignard reagent with CO₂.
 (A) Carbonation (B) Dow process (C) Catenation (D) Williamson process
- xv. Hydrolysis of an ester in the presence of alkali (NaOH) is known as _____.
 (A) Saponification (B) Decarboxylation (C) Esterification (D) Transesterfication
- xvi. Protein present in haemoglobin has the structure known as _____ structure.
 (A) Primary (B) Secondary (C) Tertiary (D) Quartanary
- xvii. The most important fraction of hydrocarbons from C₇ to C₁₀ is called _____.
 (A) Light Nephta (B) Gasoline (C) Kerosine (D) Disel oil
- xviii. Photochemical smog is primarily caused by _____.
 (A) CO (B) CO₂ (C) O₃ (D) NO₂

CHEMISTRY Part-II

Note: Time allowed for section B and C is 2 hours and 40 minutes.

SECTION "B"

Marks: 40

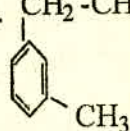
II. Attempt any Ten Parts out of the following. Each Part carries equal marks.

- i. What is bond enthalpy. Support your answer by explaining bond enthalpy in hydrogen halide.
- ii. Why most of the compounds of transition metals are coloured?
- iii. Differentiate between homocyclic & heterocyclic.
- iv. Write general mechanism of electrophilic aromatic substitution reaction.
- v. What is carbocations? Also discuss their stability.
- vi. Why phenol is more acidic than alcohol.
- vii. How aldehyde can be oxidized by Fehling's solution.
- viii. Explain, why carboxylic acids do not undergo addition reactions as compared to aldehyde.
- ix. Write the role of Glucose in human body.
- x. Differentiate between reactive & non-reactive adhesives.
- xi. Explain depletion of ozone layer.
- xii. Write note on optical isomerism.
- xiii. Discuss Beer-Lambert's law.

SECTION "C"

Marks: 27

Note: Attempt any Three questions of the following. Each question carries equal Marks.

- III. (a) Describe the trends in solubility of hydroxides & sulphates of group II-A elements. 4
- (b) What are complex ions. Explain the shape of octahedral coordinated ions. 5
- IV. (a) What are homologous series, Discuss at least three characteristics of homologous series. 5
- (b) Mention the reactions for the preparation of the following compounds from an alcohol. 4
- i. Ethane ii. Ethyl acetate iii. Acetone iv. Formaldehyde
- V. (a) Give IUPAC names to the following. 5
- i. $\text{CH}_3\text{-C}\equiv\text{C-CH(CH}_3)_2$ ii. $\text{CH}_3\text{-}\overset{\text{O}}{\underset{\text{||}}{\text{C}}}\text{-(CH}_2)_2\text{-CH}_3$ iii. $\text{CH}_3\text{-}\underset{\text{CH}_3}{\text{CH}}\text{-CHO}$
- iv. $\text{CH}_3\text{-}\underset{\text{CH}_3}{\text{CH}}\text{-CHO}$ v. $\text{CH}_2\text{-CH}_3$ 
- (b) Write the structural formula for the following. 4
- i. Buta,1,4-dioic acid ii. 4-Methyl Pentanal iii. 2-Methyl-2-propanol
- iv. 1,3-Dimethyl benzene
- VI. (a) Explain the role & nutritional importance of carbohydrates. 4
- (b) What is green house effect. How is it causing global warming? 5