CHEMISTRY Part-II	Paper Code	Roll No. of the Student
Time: 20 Minutes Marks: 18	● ② ③	Serial No. Of the Answer Book_____
Multiple Choice Questions 01 Mark for each		

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 Ⓐ Ⓑ Ⓒ Ⓓ, 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 _____.
Ⓐ Electro positivity Ⓑ Electro negativity Ⓒ Shielding effect Ⓓ Electron affinity

ii. Which of the following has giant structure.
Ⓐ SiO_2 Ⓑ P_4O_{10} Ⓒ SO_2 Ⓓ Sl_2O_7

iii. The coordination compound $[CuCl_4]^{-2}$ exists in shape _____.
Ⓐ Square planner Ⓑ Rhombic Ⓒ Tetrahedral Ⓓ Octahedral

iv. Acidified potassium acts as agent _____.
Ⓐ Oxidizing Ⓑ Reducing Ⓒ Bleaching Ⓓ Coloured

v. Pyridine belongs to _____ compound.
Ⓐ Alicyclic Ⓑ Hydrocarbons Ⓒ Homocyclic Ⓓ Hetrocyclic

vi. The self-linkage of carbon atoms to form chain & ring compound is called _____.
Ⓐ Carbonation Ⓑ Catenation Ⓒ Sublimation Ⓓ Hydrogenation

vii. In conjugated compound the carbon atom _____ hybridized.
Ⓐ SP-SP Ⓑ SP^2-SP^2 Ⓒ Sp^3-Sp^3 Ⓓ Sdp^2-Sdp^2

viii. The isomerism which is exhibited due to unequal distribution of carbon atoms on either side of function group _____.
Ⓐ Metamerism Ⓑ Tautamerism Ⓒ Functional group position Ⓓ Position isomerism

ix. Tertiary alkyl halide undergoes _____ reaction.
Ⓐ E^1 Ⓑ E^2 Ⓒ SN^1 Ⓓ SN^2

x. Reaction of Grignard reagent with formaldehyde give _____.
Ⓐ Primary alcohol Ⓑ Secondary alcohol Ⓒ Tertiary alcohol Ⓓ Carboxylic acid

xi. Isopropyl benzene is also called _____.
Ⓐ Pyric acid Ⓑ Nylon Ⓒ Cumene Ⓓ Phenol

xii. Williamson's synthesis is used to prepare _____.
Ⓐ Aldehyde Ⓑ Ketones Ⓒ Ester Ⓓ Ether

xiii. Ketons are less reactive than aldehyde towards nucleophiles attack due to _____.
Ⓐ Steric effect Ⓑ Electronic effect Ⓒ Resonance effect Ⓓ Both A & B

xiv. Carboxylic acid can be prepared by the action of Grignard reagent with CO_2.
Ⓐ Carbonation Ⓑ Dow process Ⓒ Catenation Ⓓ Williamson process

xv. Hydrolysis of an ester in the presence of alkali (NaOH) is known as _____.
Ⓐ Saponification Ⓑ Decarboxylation Ⓒ Esterification Ⓓ Transesterfication

xvi. Protein present in haemoglobin has the structure known as _____ structure.
Ⓐ Primary Ⓑ Secondary Ⓒ Tertiary Ⓓ Quartanary

xvii. The most important fraction of hydrocarbons from C_7 to C_{10} is called _____.
Ⓐ Light Nephta Ⓑ Gasoline Ⓒ Kerosine Ⓓ Disel oil

xviii. Photochemical smog is primarily caused by _____.
Ⓐ CO Ⓑ CO_2 Ⓒ O_3 Ⓓ NO_2

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 & hetrocyclic.
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 additions 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

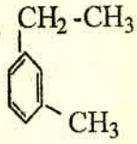
V. (a) Give IUPAC names to the following. 5

i. $CH_3\text{-}C\equiv C\text{-}CH(CH_3)_2$.

ii. $CH_3\text{-}\overset{O}{\overset{\|}{C}}\text{-}(CH_2)_2\text{-}CH_3$

iii. $CH_3\text{-}\underset{CH_3}{\underset{|}{CH}}\text{-}CHO$

iv. $CH_3\text{-}\underset{CH_3}{\underset{|}{CH}}\text{-}CHO$

v. 

(b) Write the structural formula for the following. 4

i. Buta,1,4-dioic acid ii. 4-Methyl Pentanal iii. 2-Methyl-z-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