

Chemistry Part-II

Fig. No. _____

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SECTION "A"

Time: 20 Min

Marks: 18

NOTE: Use this sheet for this section. No marks will be awarded for cutting, erasing or overwriting.

Q1. Choose the correct answer from the given choices i.e. (a, b, c, d) and insert into the relevant box.

- (i). Helium is present in group _____
- (a) I (b) II (c) VIII (d) VII
- (ii). Down's cell electrolysis is used for extraction of _____
- (a) Na (b) Mg (c) Li (d) Ca
- (iii). Borax is an ore of _____
- (a) Al (b) B (c) C (d) None of these
- (iv). AlF_3 compound is _____
- (a) Covalent (b) Partly ionic (c) Ionic (d) None of these
- (v). Na^+ is isoelectronic with _____
- (a) Cl^- (b) F^- (c) K^+ (d) Mg^{+2}
- (vi). Thermite process is _____
- (a) Exothermic (b) Endothermic (c) Reversible (d) None of these
- (vii). Formula of laughing gas is _____
- (a) NO (b) NO_2 (c) N_2O (d) N_2O_3
- (viii). Bleaching powder has a smell of _____
- (a) Water (b) Fluorine (c) Bromine (d) Chlorine.
- (ix). $KMnO_4$ is an _____
- (a) Oil (b) Acid (c) Oxidizing agent (d) Ester
- (x). Hybridization of carbon in Ethyne is _____
- (a) Sp (b) Sp^2 (c) Sp^3 (d) Sp^3cl^2
- (xi). Which one is vicinal halide?
- (a) CH_3Cl (b) $\begin{array}{c} CH_2-CH_2 \\ | \quad | \\ Cl \quad Cl \end{array}$ (c) CH_3-CH_2-Cl (d) Ccl_4
- (xii). Meta directing group is _____
- (a) OH (b) NH_2 (c) -OR (d) -CHO
- (xiii). The number of tertiary carbon atoms in tertiary butyl alcohol is _____
- (a) 4 (b) 3 (c) 1 (d) 2
- (xiv). Ethylene undergoes _____
- (a) Electrophilic addition (b) Nucleophilic addition (c) Elimination reaction (d) None of these
- (xv). Carboxylic acid contains _____
- (a) Hydroxyl & carboxyl group. (b) Hydroxyl group. (c) Carboxyl group
(d) Carboxyl & aldehydic group
- (xvi). Important reactions of benzene are _____
- (a) Nucleophilic substitution. (b) Electrophilic substitution. (c) Electrophilic addition
(d) None of these.
- (xvii). In $\text{C}_6\text{H}_5\text{COOH}$ the second substituent occupies _____
- (a) Meta position (b) Ortho position (c) Para position (d) O/P position
- (xviii). Reaction of Alcohol and Sodium produces _____
- (a) Alkoxide (b) Aldehyde (c) Ethene (d) Ethane

Chemistry Part-II

Time: Allowed: 2.40h

Max. Marks: 67

SECTION "B"

Marks: 40

Q2. Attempt any TEN questions. Each question carries equal marks.

- (i) How does Hydrogen differs from alkali metals?
- (ii) Why alkaline earth metals are hard compared to alkali metals?
- (iii) What is Aqua Regia? How it dissolves noble metals?
- (iv) How does modern periodic law differs from Mendleev's law?
- (v) Explain the chemical properties of Al? Give reactions.
- (vi) What are p-type and n-type semiconductors?
- (vii) Explain the anomalous behaviour of Nitrogen.
- (viii) What are Chelates? Give examples.
- (ix) How Acetylene is prepared on commercial scale?
- (x) Discuss the mechanism of the chlorination of Benzene.
- (xi) Explain the dehydrogenation of alcohols.
- (xii) Why phenol shows acidic behavior?
- (xiii) What are the uses of Formaldehydes?

SECTION "C"

Marks: 27

Note: Attempt any THREE questions. Each question carries equal marks.

- Q3.(a) How acetic acid is prepared?
 (b) Write a detail note on Enzymes.
- Q4.(a) Explain the preparation of bleaching powder by Hasenclever method.
 (b) Write the chemical properties of bleaching powder.
- A5.(a) Explain the manufacturing of steel by Bessemer process.
 (b) What is corrosion? Elaborate.
- Q6.(a) Write down the structural formulae of the following:
 i. Acetaldehyde ii. Ethyl acetate iii. Toluene
 iv. Methyl cyclohexane v. cyclohexadiene
- (b) Give IUPAC names of the following:


