



Name

1- ہر سوال کے سامنے چار دائرے دیئے گئے ہیں، صرف صحیح جواب والا دائرہ بھریں۔

2- دائروں کو ٹیڈا (بھرنے) کے لئے نیلے پاگلے رنگ کا مارکر استعمال کریں۔

Roll No

3- جواب میں ایک سے زائد دائرے بھرنے سے جواب غلط تصور ہوگا۔

Time Allowed: 20 Minutes

SECTION – A

Marks : 18

- 1 Which of the given technique is used for determination of functional group in a compound? IR UV NMR Mass spectroscopy
- 2 Pollutants have adverse effect over..... Biosphere Ecosystem Hydrosphere All these
- 3 Which is true for DDT? It is..... Not a pollutant An antibiotic An antiseptic A non-degradable pollutant
- 4 Ethanol is produced from starch by the process of..... Hydrolysis Hydrogenation Decomposition Fermentation
- 5 Which of the given orders of relative strengths of acids is correct? $\text{ClCH}_2\text{COOH} > \text{FCH}_2\text{COOH} > \text{BrCH}_2\text{COOH}$ $\text{ClCH}_2\text{COOH} > \text{BrCH}_2\text{COOH} > \text{FCH}_2\text{COOH}$ $\text{BrCH}_2\text{COOH} > \text{FCH}_2\text{COOH} > \text{ClCH}_2\text{COOH}$ $\text{FCH}_2\text{COOH} > \text{ClCH}_2\text{COOH} > \text{BrCH}_2\text{COOH}$
- 6 Clemmensen reduction is carried out with..... LiAlH_4 Zn-Hg and HCl LiAlH_4 and HCl All these
- 7 Which of the given has highest solubility in water? $(\text{CH}_3)_2\text{CHOH}$ $(\text{CH}_3)_3\text{COH}$ $\text{C}_2\text{H}_5\text{OH}$ MeOH
- 8 The strongest reducing agent in these is..... HI HF HBr All these
- 9 Aqueous KOH causes $\text{S}_\text{N}2$ -reaction in alkylhalide. On which of the given alkylhalides KOH_{aq} would like to attack easily? $\text{CH}_3\text{-CH}_2\text{-Cl}$ $\text{CH}_3\text{-CH}_2\text{-Br}$ $\text{CH}_3\text{-CH}_2\text{-F}$ $\text{CH}_3\text{-CH}_2\text{-I}$
- 10 Which of the given is more stable? Cyclo Propane Cyclo Butane Cyclo Pentane Cyclo Hexane
- 11 The order in the ease of dehydration of alcohol is..... Tertiary > Secondary > Primary Primary > Secondary > Tertiary Secondary > Primary > Tertiary Primary > Tertiary > Secondary
- 12 Which of the given is an organic compound? KCN NH_4OCN CS_2 None of these
- 13 Furan is.....organic compound. Homocyclic Aromatic Heterocyclic Both B and C
- 14 Which of the given is diamagnetic ion? Cu^{2+} Mn^{2+} Sc^{3+} Co^{3+}
- 15 Which of the given ions exhibits colour in aqueous solution? Ni^{2+} Ti^{4+} Zn^{2+} Sc^{3+}
- 16 Alkali metals have high oxidation potential and hence they behave as..... Electrolytes Lewis bases Oxidizing agents Reducing agents
- 17 Which of the given has the lowest melting point? Cs K Na Li
- 18 Lithium is the strongest reducing agent among alkali metals due to which of the given factors? Ionization energy Electron affinity Lattice energy Hydration energy

PR XII (01) 19 P-380
CHEMISTRY (New)
Inter Part-II
(Fresh/Reappear)

Note: Time allowed for Section – B and Section – C is 2 Hours and 40 minutes.

Section – B

Marks: 40

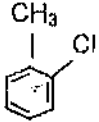
Q-II Answer any TEN parts. Each part carries FOUR marks.

1. Why fall in ionization energy occurs at Al and S in the same period? ✓
2. Transition elements show variable oxidation states, why? ✓
3. How coal can be converted into petroleum? ✓
4. Why cyclopropane is more reactive than propane? ✓
5. Why benzene is less reactive than ethane? ✓
6. Ethyl alcohol is liquid while ethyl chloride is gas at room temperature, give reasons.
7. What is Lucas test? ✓
8. What is silver mirror test?
9. Carboxylic acids have high boiling points than corresponding alcohol, give reasons. ✓
10. Vegetable oil is sensitive to rancidity, give reasons. ✓
11. How DDT reaches to animal fatty tissue? ✓
12. Why acid rain is considered as threat to historical monument? ✓
13. Explain the use of ionization chamber in mass spectrometer. ✓

Section – C

Marks: 27

Note : Attempt any THREE questions. All questions carry equal marks.

- Q-III (a) Explain the reaction of group II-A elements with oxygen. ✓
(b) What is meant by atmosphere, explain the importance of troposphere. ✓
- Q-IV (a) Explain the acidity of carboxylic acid. How their acid strength is affected by substitution? ✓
(b) Why O/P group activate the ring for further substitution? Explain. ✓
- Q-V (a) Give IUPAC names.
i. $\text{Na}_2 [\text{Fe}(\text{NO})(\text{CN})_5]$ ii. 
iii. $\begin{array}{c} \text{CH}_2 - \text{CH}_2 - \text{CH}_2 \\ | \qquad \qquad | \\ \text{OH} \qquad \qquad \text{OH} \end{array}$ iv. $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{CHO}$
v. $\text{HOOC} - (\text{CH}_2)_2 - \text{COOH}$ vi. $\begin{array}{c} \text{O} \\ || \\ \text{CH}_3 - \text{C} - \text{Cl} \end{array}$
- (b) Draw structural formula for the given compounds.
i. Potassium Hexachloroplatinate ii. 3-Hexene-1-yne
iii. p-xylene iv. Methoxyethane
v. hexane-2,4-dione vi. Acetamide
- Q-VI (a) Discuss Bimolecular Elimination (E_2) reaction in Alkyl Halides. ✓
(b) Using Grignard reagent and appropriate aldehyde or ketone, how each of the following can be prepared? ✓
i. 1-butanol ii. Ethyl alcohol iii. 2-butanol