

V12C

Virudhunagar District
Common First Revision Test - January 2024

Standard 12

CHEMISTRY

Time Allowed: 3.00 Hrs.

Maximum Marks: 70

Part - I

15×1=15

I. Choose the correct answer:

- 1) Electrochemical process is used to extract
 - a) Iron
 - b) Lead
 - c) Sodium
 - d) Silver
- 2) Which among the following is not a borane?
 - a) B_2H_6
 - b) B_3H_6
 - c) B_4H_{10}
 - d) None of these
- 3) Among the following the correct order of acidity is
 - a) $HClO_2 < HClO < HClO_3 < HClO_4$
 - b) $HClO_4 < HClO_2 < HClO < HClO_3$
 - c) $HClO_3 < HClO_4 < HClO_2 < HClO$
 - d) $HClO < HClO_2 < HClO_3 < HClO_4$
- 4) Equivalent weight of $KMnO_4$ in neutral medium _____
 - a) 31.6
 - b) 52.67
 - c) 158
 - d) 52.76
- 5) Crystal field stabilization energy for high spin d^3 octahedral complex is
 - a) $-0.6\Delta_0$
 - b) 0
 - c) $2(P-\Delta_0)$
 - d) $2(P+\Delta_0)$
- 6) If 75% of a first order reaction was completed in 60 minutes, 50% of the same reaction under the same conditions would be completed in
 - a) 20 minutes
 - b) 30 minutes
 - c) 35 minutes
 - d) 75 minutes
- 7) Which of these is not likely to act as Lewis base?
 - a) BF_3
 - b) PF_3
 - c) CO
 - d) F⁻
- 8) Argyrol is
 - a) Colloidal gold
 - b) Colloidal magnesium
 - c) Colloidal silver
 - d) Colloidal calcium
- 9) Which of the following compound can be used as antifreeze in automobile radiators?
 - a) methanol
 - b) ethanol
 - c) neopentyl alcohol
 - d) ethan-1, 2-diol
- 10) Which one of the following used as coagulating agent for rubber latex?
 - a) Formic acid
 - b) Benzoic acid
 - c) Acetyl chloride
 - d) Ethyl acetate
- 11) Pyrogallol is
 - a) 1, 2 - dihydroxy benzene
 - b) 1, 3 - dihydroxy benzene
 - c) 1, 4 - dihydroxy benzene
 - d) 1, 2, 3 - trihydroxy benzene
- 12) Nylon - 6 is the polymer of
 - a) Capro lactam
 - b) Phenol
 - c) Glycol
 - d) Glycol and terephthalic acid
- 13) Which one given below is a non-reducing sugar?
 - a) Glucose
 - b) Sucrose
 - c) Maltose
 - d) Lactose
- 14) The cation leaves its normal position in the crystal and moves to some interstitial position, the defect in the crystal is known as,
 - a) Schottky defect
 - b) 'F' center
 - c) Frenkel defect
 - d) Non-Stoichiometric defect
- 15) Which one of the following is an example for homogeneous catalysis?
 - a) Manufacture of ammonia by Haber's process
 - b) Manufacture of sulphuric acid by contact process
 - c) Hydrogenation of oil
 - d) Hydrolysis of sucrose in presence of all HCl

Part - II

Answer any six questions. Question No. 24 is compulsory:

6×2=12

26) What is the role of silica in the extraction of copper?

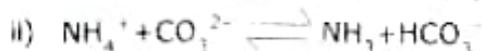
27) Write a note on McAfee process.

Kindly Send me your Answer Keys to email id - Padasalai.net@gmail.com

V12C

2

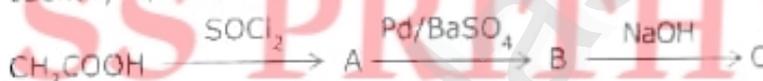
- 18) Give the uses of helium.
 19) What is meant by F-center?
 20) Identify the conjugate acid-base pair for the following reaction in aqueous solution.



- 21) Define Electrophoresis.
 22) Give the uses of Glycerol (Any two).
 23) Write note on Benzoin condensation.
 24) Write the following for the complex $[\text{Ag}(\text{NH}_3)_2]^+$.
 (a) Central metal ion (ii) IUPAC name

Part - III**III. Answer any six questions. Question No. 33 is compulsory: 6×3=18**

- 25) Write the uses of Alum. (Any three)
 26) How is Bleaching powder prepared?
 27) Write the conditions of Hume-Rothery rules to form an Alloy.
 28) Give the difference between double salts and coordination compounds. (Any three)
 29) Differentiate crystalline solids and amorphous solids. (Any three)
 30) What is common ion effect? Give example.
 31) Distinguish 1°, 2° and 3° alcohols using Lucas Test.
 32) Explain HVZ reaction.
 33) Identify A, B and C.

**Part - IV****IV. Answer all the questions:****5×5=25**

- 34) a) Explain main assumptions of Valence bond theory (VBT).
 (OR)
 b) i) Compare lanthanoids and actinoids. (Any three)
 ii) What is inert pair effect?
 35) a) i) How to purify Titanium by Van-Arkel method?
 ii) Write the differences between Diamond and Graphite.
 (OR)
 b) Differentiate chemical adsorption and physical adsorption.
 36) a) i) What are Buffer solutions? Give its types.
 ii) Classify the following into Lewis acids and Lewis bases.
 (a) BF_3 (b) CO_2 (c) MgO (d) CH_3^-
 (OR)
 b) i) What is Standard Hydrogen Electrode (SHE)?
 ii) Define Electro Chemical equivalent (z).
 37) a) i) How do you distinguish formic acid from other acid?
 ii) Aniline does not undergo Friedel - Crafts reaction. Why?
 (OR)
 b) What are the functions of lipids in living organism?
 38) a) i) How is prepared Buna-N? Give its uses.
 ii) What is Antiseptic? Give an example.
 (OR)
 b) Write short notes on:
 (a) Carbylamine reaction (b) Gabriel - Phthalimide reaction (c) Schotten - boumann reaction,