I UNIT TEST 2017-18

SUBJECT – CHEMISTRY

STD.-XII **MARKS- 25**

DATE- 08/08/17 **TIME-**

Q.1 Select and write the most appropriate answer from the given alternative for each sub question. **(6)**

1. In solids constituent particles may be

   a) atoms b) ions c) molecules d) any one of the above three

2. Benzyl phenyl ether reacts with hydrogen bromide to give

   a) benzyl bromide and phenol b) benzyl alcohol and bromobenzene

   c) benzyl bromide and bromobenzene d) benzyl alcohol and phenol.

3. Ether are considered as

   a) monoalkyl derivatives of water b) alkoxy derivatives of alkanes

   c) alkyl derivatives of fatty acids d) condensation products of acid and alcohol.

4. Fe_2O_3 is reduced to sponge iron near the top of blast furnace by

   a) CO b) C c) CO_2 d) H_2

5. The optically inactive compound is

   a) Glucose b) lactic acid c) 2-chlorobutane d) 2-chloropropane

6. An ionic crystal lattice has r^+ / r^- radius ratio of 0.524. Its coordination number is

   a) 2 b) 4 c) 6 d) 8

Q.2 Attempt any Three **(6)**

1. Explain the magnetic separation method.

2. Predict the expected product of substitution reactions

a. Isobutyl chloride + sodium ethoxide b. n-butyl chloride + sodium

3. Name the reagents used to convert phenol into

a. 2,4,6 – tribromophenol b. O- phenol sulphuric acid.

4. Explain impurity defects.

Q.3 Attempt any Two **(6)**

1. Copper crystallise into a fcc structure and the unit cell has length of edge 3.61x10-8 cm. Calculate the density of copper if the molar mass of cu is 63.5 g mol.

2. Explain the following reaction of phenol

a. Kolbe's reaction b. Riemer- Tiemann reaction c. Reaction with Zn dust

3. Differentiate between SN^1 and SN^2 mechanism.

Q.4

1. Write reactions involved at different temperature in the blast furnace. **(4)**

2. Write the mechanism of acid catalysed dehydration of ethanol to give ethene. **(3)**

OR

1. What are ethers? How are ethers classified? **(3)**
2. Find the number of atoms per unit cell in the following crystal structures. **(4)**
   a. Simple cubic b. Body centred cubic