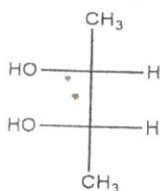


1. Attempt **all** questions.
2. **All questions carry equal marks.**
3. Draw **neat labeled diagrams** wherever necessary.
4. For **Q 2, Q 3 and Q 4** attempt A and B **OR** C and D.

**Q 1 Do as directed (Any fifteen)****15**

1. Draw the lewis dot structure of the following : Oxygen.
2. Write the IUPAC name of the following:  $\text{CH}_3\text{-CH}_2\text{-CH}_2\text{-CH}_2\text{-CH}_3\text{-OH}$ .
3. What is the number of electrons in the outermost shell of Chlorine?
4. What is the bond angle of  $\text{BeCl}_2$ ?
5. The bond that is formed between two electronegative atoms is known as \_\_\_\_\_ bond.
6. Define Lattice energy.
7. Which analytical method is based on the weight of the precipitate?
8. Which apparatus would you use to prepare a standard solution?
9. What is the endpoint?
10. \_\_\_\_\_ type of titration that is also known as Neutralization titration.
11. \_\_\_\_\_ is a procedure used to determine the concentration of an unknown reactant in the solution.
12. A \_\_\_\_\_ is a substance of precisely known concentration that is added in a titration reaction.
13. In \_\_\_\_\_, the analyte and the titrant react and simply combine to form an insoluble precipitate.
14. Direct titration is also known as \_\_\_\_\_.
15. Define. Isomers.
16. Hexane and 3-methylpentane are examples of \_\_\_\_\_
17. Draw Eclipsed form of following molecule.



18. Draw cis isomer of 1,2-dichloroethene.
19. State true or false. In the Fischer projection formula, a broken wedge indicates the bond below the plane of the paper.
20. Give an example of Chain Isomerism.

**Q. 2 A** Elaborate in detail VSEPR theory with examples.**08****Q. 2 B** Explain in detail Covalent bonds with suitable examples.**07****OR****Q. 2 C** Explain in detail Ionic bonds with suitable examples.**08****Q. 2 D** Explain in detail IUPAC Nomenclature for various chemical groups.**07**

VCD/

7/12/23

FYBT SEM I

SUB: PAPER III- BASIC CHEMISTRY I 75 MARKS

2HRS 30 MIN

- Q. 3 A Explain the requirements used in titration? 08
- Q. 3 B Explain the neutralization curve with an example. 07
- OR
- Q. 3 C What are standard solutions? Explain its types. 08
- Q. 3 D What are the steps of Gravimetric analysis? 07
- Q. 4 A Differentiate between Enantiomers and Diastereoisomers. 08
- Q. 4 B Draw Fischer projection formula and Newmann projection formula of Erythro and Threo 2,3 - Dibromobutane 07
- OR
- Q. 4 C What is structural isomerism? Explain its different types with examples. 08
- Q. 4 D Draw interconversion of Erythro 3-bromo-2-butanol from Fischer's formula into Sawhorse formulae. 07
- Q. 5 Write Short notes on any three of the following 15
- a. Factors governing the formation of Ionic bonds.
  - b. Indicator
  - c. Precipitation
  - d. Different types of functional groups.
  - e. Chirality