

**Date:** 3/16/2019**House no** 1552/A Ghosia colony Gulbahar No.2, Karachi**Guess paper XI****Prepared by:** Mohammad Raza Ansari**SECTION 'C' (DETAILED QUESTION ANSWER)**

- 1) Define Electrovalent Bond and Covalent Bond. Explain Sigma and Pi bond in terms of
  - Types of Overlapping
  - Strength of Bond
- 2) What is Normal Boiling Point? Explain why Boiling point of a liquid remains constant and effected by atmospheric pressure.
- 3) What are the defects of Rutherford atomic Model? Describe the Postulates of Bohr's atomic theory
- 4) Write the Postulates of K.M.T of gases. State and explain Graham's law of Diffusion
- 5) Explain the following with the help of Kinetic
  - Boyles Law
  - Charles Law
  - Dalton's law of partial Pressure
- 6) Give a Brief introduction of the following terms of liquid and Solid
  - Isomorphism
  - Evaporation
  - Vapor pressure
  - Latent heat of fusion
- 7) How can you define Buffer Solution with Example? How buffer solution work.?
- 8) Define standard electrode Potential? How is the standard electrode potential of copper determined.
- 9) What is meant by the term Rate of reaction and rate constant? Explain the effect of surface area of reactant and temperature on the rate of reaction.
- 10) Differentiate between the following:

*Diffusion and effusion	* Acidic and Basic salts
*Molar and Molal Solutions	*Exothermic and Endothermic reactions
*Lyman series and Balmer Series	*Continuous and Line spectrum
*Crystalline and amorphous solid	* Hydration and Hydrolysis
- 11) What is Orbital Hybridization? Explain the Shape of Ethene and ethyne molecules on the basis of Hybrid Orbital.
- 12) What is capillary action? Explain the following observation
  - Mercury form convex meniscus while water form concave.
  - Ink spread on blotting paper
- 13) Define and explain Activation Energy. Write note on any two of the following:
  - \*Slow reaction
  - \*Fast reaction
  - \*Moderate reaction
  - \*Positive catalyst

**Prepared by:****Mohammad Raza Ansari****03452200449**