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SUBJECT CODE NO:- 2008
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. F.Y (Sem-II)
EXAMINATION JUNE/JULY 2022
Chemistry Paper- V
Inorganic Chemistry

[Time: 1:53 Hours]

[Max.Marks:50]

Please check whether you have got the right question paper.

- N.B 1) Attempt all questions.
2) Illustrate your answer with suitable labeled diagram
- Q.1 a) Give the structure and bounding in XeF_6 10
 b) Explain the formation of water molecule with the help of VSEPR theory 10
 OR
 a) Discuss the different types of hybridization with examples 10
 b) Explain the formation of SF_6 10
- Q.2 a) What is radioactivity? Discuss the properties of α - particles 10
 b) Explain in detail redox titration with suitable example. 10
 OR
 Write short notes of any two of the following 20
 a) Calibration of Burette
 b) Electronic configuration of noble gases
 c) Hydrogen bonding
 d) Isotopes & isobar
- Q.3 Select the correct option for each of the following 10
 1) The atomic number of helium atom is -----
 a) 2 b) 1
 c) 10 d) 5
 2) The electronic configuration of noble gases is -----
 a) ns^2np^6 b) np^6
 c) ns^2 d) $d^{(n-1)}ns^2$
 3) The hybridized state of XeF_4 is -----
 a) Sp b) Sp^2
 c) Sp^3 d) Sp^3d^2
 4) KMnO_4 act as -----agent
 a) Oxidizing b) Reducing
 c) Chelating d) None of these
 5) The bond order of CO is -----
 a) Zero b) One
 c) Two d) Three

- 6) VSEPR theory was proposed by -----
- a) Haitler & London
 - b) Pauling & slater
 - c) Gillespie & Nyholm
 - d) Sidwick & Powell
- 7) The bond which is formed by the transfer of electron from one atom to other is called---
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- a) Covalent
 - b) Ionic
 - c) Coordinate
 - d) Hydrogen
- 8) -----indicator is used in acid base titration
- a) Ferroin
 - b) KMnO_4
 - c) Methylene blue
 - d) Phenolphthalien
- 9) EDTA is -----ligand.
- a) Monodentate
 - b) Bidentate
 - c) Tridentate
 - d) Hexadentate
- 10) The shape of ClF_3 molecule is
- a) Triangular planar
 - b) T-shaped
 - c) V-shaped
 - d) See-saw