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SUBJECT CODE NO: - Y-2008
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. F.Y (Sem-II)
Examination March / April - 2023
Chemistry Paper- V Inorganic Chemistry

[Time: 3:00 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 labelled diagram

Q1 a) Give the structure and bonding in XeF_2 10b) Explain the formation of SF_4 molecule with the help of VSEPR theory. 10**OR**a) What is hybridisation? explain sp^2 hybridisation with suitable example 10b) Explain the formulation of IF_7 10Q2 a) Write the properties of β & γ -particles 10

b) Discuss in detail study about internal and external indicator 10

OR

Write short notes on any two 20

a) Packing fraction

b) Importance of indicator

c) Chemistry of Xenon

d) Homonuclear diatomic and Heteronuclear diatomic molecules

Q3 Select the correct option for each of the following 10

1) Electronic configuration of He is -----

a) $1s^2$ b) $2s^2$ c) $3s^2$ d) $4s^2$ 2) Bond order of He_2 is -----

a) Zero b) one c) Two d) Three

3) ----- is the best complexing agent

a) NH_3 b) OH^-

c) EDTA

d) H_2O

4) The elements of group 18 are

a) Alkali metal

b) Lanthanides

c) Halogens

d) Noble gas

- 5) The phenomenon of Radioactivity is given -----
a) Henry Becquerel b) Heitler and London
c) Panling & slater d) None of these
- 6) The shape of ClF_3 molecule is
a) Triangular planar b) T-shaped c) V-shaped d) see-saw
- 7) The hybridised state of xeF_6 is -----
a) SP^3 b) $Sp^3 d^2$ c) $SP^3 d^3$ d) SP^2
- 8) The process of carbon dating is useful for calculating -----
a) Acid value b) age c) Medicine value d) All of these
- 9) VSEPR theory was proposed by -----
a) Gillespie b) Rutherford c) Bohr d) sidwick & Bowell
- 10) $KMnO_4$ is -----indicator
a) Self b) Litmus c) acid base d) none of these