Sanjay Ghodawat University, Kolhapur

2020-21

Established as State Private University under Govt. of Maharashtra. Act No XL, 2017

EXM/P/09/00

Year and Program: 2020-21, F.Y.M.SC	**School of Science**	**Department: Chemistry**
Course Code: CHS-503	**Course Title: Inorganic Chemistry-I**	**Semester : I (Odd)**
Day and Date: Thursday, 6th July., 2021	**Re-End Semester Examination**	**Time : 2 Hrs.** **Max Marks : 50**

Instructions: 1) All Questions are compulsory.

		Marks	Bloom's Level	CO
Q.1	**Answer/Solve the following**			
a)	Explain the hybridization with proper structure of xenon compounds XeF_2 and $XeOF_2$ on the basis of VSEPR concept. Draw the MO diagram of homonuclear diatomic O_2 molecule and calculate the bond order.	8	L2	1
b)	Write a note on Blackbody radiation in detail.	8	L3	2
	OR			
c)	i) Derive the equation for Bohr radius and ii) Write a note on Compton effect	8	L3	2
Q.2	**Answer/Solve the following**			
a)	Write a comprehensive note on polythiazyl compounds.	8	L2	3
b)	What are silicates? Explain in detail the types of silicate with proper examples.	8	L3	3
	OR			
c)	i) Explain synthesis, properties and application of phosphazes and ii) Write a note on silicones.	8	L3	3
Q.3	**Answer/Solve the following**			
a)	What is intrinsic semiconductor? Describe extrinsic semiconductor with proper diagram.	9	L3	4
b)	Discuss in detail the zone refining method and single crystal growth method for the purification of semiconducting materials.	9	L4	4
	OR			
c)	Discuss the mechanism, types and application of solar cell.	9	L4	4

*****