

B. Sc. DEGREE END SEMESTER EXAMINATION - MARCH 2020**SEMESTER –6: CHEMISTRY (CORE COURSE)****COURSE: 15U6CRCHE09: INORGANIC CHEMISTRY - II***(Common for Regular 2017 Admission & /Supplementary 2016 /2015 Admissions)*

Time: Three Hours

Max. Marks: 60

SECTION A***Answer all questions. Each question carries 1 mark***

1. Titanium is extracted from ore.
2. What is roasting?
3. Give an example for low nuclearity carbonyl clusters?
4. is known as Marshall's acid.
5. n -type semiconductors are formed by the doping of
6. Name any two macro cyclic ligand?
7. What is quadruple bond?
8. What is COD?

(1 × 8 = 8)**SECTION B*****Answer any six questions. Each question carries 2 marks***

9. What are amphoteric solvents? Give an example.
10. Give the structure and preparation of $\text{Ni}(\text{CO})_4$?
11. What are phosphazenes?
12. What is hydro metallurgy?
13. What are carboranes? Give an example.
14. Differentiate CCP and HCP?
15. What is meant by BOD? Give its significance.
16. Explain superconductivity with example?

(2 × 6 = 12)**SECTION C*****Answer any four questions. Each question carries 5 marks***

17. What are bridged carbonyls? Discuss the bonding in carbonyls
18. Give the structure of oxides and fluorides of Xenon?

19. Discuss the bonding in diborane?
20. Explain any four reactions of liquid ammonia as solvent?
21. Discuss the different methods employed for concentration of ores?
22. Predict the structure of $\text{Os}_6(\text{CO})_{18}$ and $\text{Rh}_6(\text{CO})_{16}$ by using electron counting scheme.

(5 × 4 = 20)

SECTION D

Answer any two questions. Each question carries 10 marks

23. Detail the extractive metallurgy of Uranium.
24. Discuss the various water quality parameters with significance.
25. Explain the preparation, properties and uses of silicones and silicone rubber?
26. Briefly explain a) super acids b) crown ethers c) interhalogen compound d) oxy acids of halogen

(10 × 2 = 20)
