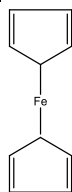


TELANGANA UNIVERSITY
S.S.R. DEGREE COLLEGE, NIZAMABAD (C.C:5029)
III SEMESTER INTERNAL ASSESSMENT I EXAMINATIONS
CHEMISTRY QUESTION BANK

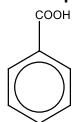
• **Fill in the blanks :-**

1. In F-Block elements, the extra electron enters (n-2)f orbital
2. The most important oxidation state of lanthanides & Actinides is +3
3. Except Pm all Lanthanides are non radioactive
4. With the increase in atomic no the ionic radii of lanthanides decreases
5. All the Lanthanides exhibit a valency of 3
6. In Lanthanide contraction size of M^{+3} ion Decreases
7. Lanthanide ions having empty, half filled orbital's are colorless
8. Ziegler natta catalyst is $TiCl_4, R_3Al$
9. The complex used in cancer therapy cisplatin
10. What is the shape of $[Cr(NH_3)_6]^{+3}$ octahedral
11. Who proposed valency bond theory Pauling
12. What is the full form of CFSE Crystal Field Stabilization Energy
13. Example for strong field ligand CN, CO
14. What is the full form of EDTA Ethylene Dioxin Tetra acetic Acid
15. Separation of Lanthanides by ion exchange method
16. What is the oxidation state of metal in $[Fe(CN)_6]^{-2}$ +2
17. Example for neutral ligand NH_3, H_2O
18. Example for polydentate ligand EDTA
19. In Werner's theory primary valency denoted with lines
20. If coordination no is 5 shape is Trigonal bipyramidal
21. What is shape of $Ni(CO)_4$ Tetrahedral
22. In $Fe(CO)_5$ EAN calculate 36
23. What is shape of $Cr(CO)_6$ Octahedral
24. What is the bond angle of nitrosyl, $120^\circ-140^\circ$
25. What is the Grignard reagent Rmgx

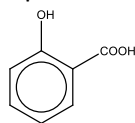


26. What is the structure of ferrocene

27. Example for dicarboxylic acids succinic acid



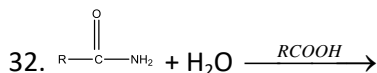
28. Name of the compound Benzoic Acid



29. Salicylic acid structure

30. IUPAC name of CH_3COOH Ethanoic Acid

31. Name of the $CH_3-CH_2-NO_2$ Nitro Ethane



33. What is the hybridization of COOH sp^2

34. Intermolecular hydrogen bonding present in COOH

35. What is the metal atom present in hemoglobin Fe^{+2}

36. What is the name of $(\text{C}_2\text{H}_5)_4\text{Pb}$ Tetra Ethyl lead

37. What is the metal atom in chlorophyll Mg^{+2}

38. Example for π bonded organo metallic compound Ferrocenes

39. Tri alkyl aluminum has dimeric structure

40. Cyanide IUPAC name Nitriles

II. Short Answers.

1. Write the general electronic configuration of Lanthanides?

A: $[\text{Xe}]_{54}4f^{1-14}5d^16s^2$

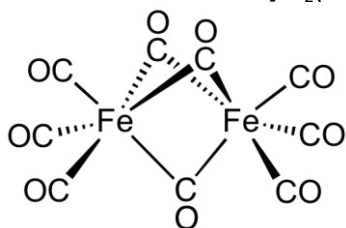
2. Write IUPAC name of $[\text{Co}(\text{NH}_3)_6]^{+3}$?

A: Hexamine cobalt (III) ion

3. Calculate oxidation state of 'Fe' in $[\text{Fe}(\text{CN})_6]^{-4}$?

A: +2

4. Write the structure of $[\text{Fe}_2(\text{CO})_9]$?

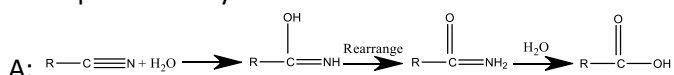


A:

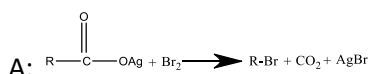
5. Write the equation preparation of Grignard reagent?

A: $\text{R}-\text{X} + \text{Mg} \xrightarrow{\text{dry ether}} \text{RmgX}$

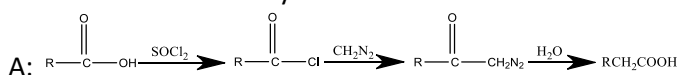
6. Prepare carboxylic acids from nitrile?



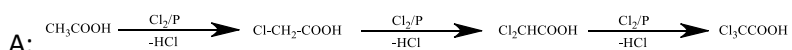
7. Write Hunsdickev reaction ?



8. Write arudt eistert syntriesis ?



9. Write HVZ reaction?



10. Write about carbyl amine test?

