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SARDAR PATEL UNIVERSITY

E+G

Bachelor of Science (Fifth semester) Examination - 2025

US05MICHE01 (Inorganic Chemistry)

Date: 07/ 10/ 2025 (Tuesday)

Total: 25 Marks

Time: 10.00 am to 11.30 am

Q:1 Choose the correct option from the following.

[05]

- Cyclopentadienyl complexes are also known as _____.
(a) Zeise's salt (b) metallocenes (c) alkene complexes (d) sandwich compound.
- Organometallic compounds are soluble in _____ solvents.
(a) non polar (b) polar (c) both (d) None of them .
- The correct stability order of metals in organometallic compound is _____.
(a) $Fe < Ni < Co$ (b) $Fe > Ni > Co$ (c) $Co > Fe > Ni$ (d) None of them
- Ruby copper is an example of _____ ore of Copper.
(a) Carbonate (b) Sulphide (c) Both(a) and (b) (d) Oxide
- The Process of removal of gangue from the ore is technically known as _____.
(a) Modification (b) Crystallization (c) Fluxing (d) Concentration

Q:2 Long Questions

- Give an account of organometallic compounds of Aluminium (Al).
- Discuss the structure and bonding in Ferrocene.

[05]

[05]

OR

- Write a short note on organometallic compounds of Mg.
- Discuss the structure and bonding in metal-olefin complexes.

[5]

[5]

Q:3 Long Questions

- Write a note on: Magnetic Separation Process.
- Explain the Froath Flotation Process.

[5]

[5]

OR

- Write a note on: Blast Furnace.
- What is matte? Describe the extraction of copper from matte by Bessemer Process.

[5]

[5]

[P.T.O.]

(1)