



A CharutarVidya Mandal's Institution  
**V.P. & R.P.T.P. SCIENCE COLLEGE**  
(AUTONOMOUS) (Grant-in-Aid)  
Affiliated to Sardar Patel University  
VALLABH VIDYANAGAR-388120



**Bachelor of Science (Semester 5) Internal Examination - 2025**  
**US05MICHE01: INORGANIC CHEMISTRY**

**Date: 24/09/2025, Wednesday**

**Time: 10:45 AM to 11:45AM**

**Total marks :20**

Q-1 Multiple Choice Question.

6

1. Most common reducing agent for synthesis of organometallic compound is \_\_\_\_\_.

- (a)  $\text{CO}_2$  (b) CO  
(c)  $\text{MnO}_2$  (d) none of them

2) The colour of Ferrocenium is \_\_\_\_\_.

- (a) Yellow (b) Purple  
(c) Yellow-green (d) Blue-green

3) Olefins are \_\_\_\_\_ electron ligands.

- a) One (b) Two  
(c) Three (d) Four

4) The process of removal of gangue from the ore is technically known as \_\_\_\_\_.

- (a) Modification (b) Chlorination  
(c) Concentration (d) Separation

5) In Blast furnace \_\_\_\_\_ may be lined with carbon blocks for durability.

- (a) Hearth (b) Chimney  
(c) Hopper (d) Tuyers

6) Bornite is an ore of \_\_\_\_\_.

- (a) Copper (b) Silver  
(c) Lead (d) Nickel



Q-2. Discuss the structure and bonding of Ferrocene.

7

OR

Q-2. Give an account on Organometallic compounds of aluminium.

7

Q-3. Describe the froth flotation process and magnetic separation process for the concentration of ores.

7

OR

Q-3. Give the comparison of Bessemer and open-hearth process for manufacturing of steel.

7

**Seat No.:** .....



**A CharutarVidya Mandal's Institution**  
**V.P. & R.P.T.P. SCIENCE COLLEGE**  
**(AUTONOMOUS) (Grant-in-Aid)**  
**Affiliated to Sardar Patel University**  
**VALLABH VIDYANAGAR-388120**



**Bachelor of Science (Semester 5) Internal Examination - 2025**  
**US05MICHE01: INORGANIC CHEMISTRY (Quiz Test)**

**Date: 24/09/2025, Wednesday**

**Time: 10:45 AM to 11:45AM**

**Total marks :05**

Q. 1. Fill in the blanks.

5

- \_\_\_\_\_ is the example of metal-olefin (alkyne) complex.  
a) common salt  
b) Zeise's salt
- Reaction of  $\text{CO}_2$  and \_\_\_\_\_ yields organic acids.  
a) Grignard reagent  
b) alkanes
- Cyclopentadienyl complexes are also known as \_\_\_\_\_.  
a) metallocene  
b) sandwich
- The extraction of a metal from its ore by a process involving melting is termed as \_\_\_\_\_.  
a) fluxing  
b) smelting
- Ruby copper is an example of \_\_\_\_\_ ore of copper.  
a) oxide  
b) sulphide

