B.Sc. DEGREE EXAMINATION,NOVEMBER 2018
II Year III Semester
Core Major - Paper V
GENERAL CHEMISTRY- V

Time : 3 Hours **Max.marks :60**

Section A $(10 \times 1 = 10)$ Marks

Answer any **TEN** questions

1. What are electron withdrawing groups?
2. Why phenoxide ion is more stable?
3. State the First law of thermodynamics.
4. Define entropy.
5. What is Gibbs Helmholtz energy?
6. Define fugacity.
7. How will you prepare boron nitride?
8. What are carbides?
9. What is stainless steel?
10. Distinguish ore and mineral.
11. What is electrolytic refining?
12. What is an alloy?

Section B $(5 \times 4 = 20)$ Marks

Answer any **FIVE** questions

13. Explain Lederer – Manasse, and Houben – Hoesh reactions.
14. Explain how phenol undergo coupling reaction.
15. Define chemical potential explain its variation with respect to temperature and pressure.
16. Derive Dughem Margules equation.
17. Explain in detail the classification of silicates.
18. State and explain Troutons rule.
19. Explain the steps involved in the extraction of Titanium.

Section C $(3 \times 10 = 30)$ Marks

Answer any **THREE** questions

20. Derive Gibb's Duhem and Gibb's Helmholtz equations.
21. Discuss the preparation, properties and uses of sodium borohydride.
22. Mention the preparation, properties and uses of carbides.
23. Derive the equations for efficiency using carnot cycle.
24. Discuss the metallurgy of U.

B.Sc. DEGREE EXAMINATION,NOVEMBER 2018
II Year III Semester
Core Major - Paper V
GENERAL CHEMISTRY- V

Time : 3 Hours **Max.marks :60**

Section A $(10 \times 1 = 10)$ Marks

Answer any **TEN** questions

1. What are electron withdrawing groups?
2. Why phenoxide ion is more stable?
3. State the First law of thermodynamics.
4. Define entropy.
5. What is Gibbs Helmholtz energy?
6. Define fugacity.
7. How will you prepare boron nitride?
8. What are carbides?
9. What is stainless steel?
10. Distinguish ore and mineral.
11. What is electrolytic refining?
12. What is an alloy?

Section B $(5 \times 4 = 20)$ Marks

Answer any **FIVE** questions

13. Explain Lederer – Manasse, and Houben – Hoesh reactions.
14. Explain how phenol undergo coupling reaction.
15. Define chemical potential explain its variation with respect to temperature and pressure.
16. Derive Dughem Margules equation.
17. Explain in detail the classification of silicates.
18. State and explain Troutons rule.
19. Explain the steps involved in the extraction of Titanium.

Section C $(3 \times 10 = 30)$ Marks

Answer any **THREE** questions

20. Derive Gibb's Duhem and Gibb's Helmholtz equations.
21. Discuss the preparation, properties and uses of sodium borohydride.
22. Mention the preparation, properties and uses of carbides.
23. Derive the equations for efficiency using carnot cycle.
24. Discuss the metallurgy of U.