B.Sc. DEGREE EXAMINATION,NOVEMBER 2018
I Year I Semester
Allied- Paper I
ALLIED CHEMISTRY - I

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

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

Answer any **TEN** questions

1. What is common ion effect?
2. Differentiate weak and strong electrolytes.
3. Define calorific value of fuel.
4. What is triple super phosphate?
5. Define hybridisation.
6. What are electrophiles.? Give an example.
7. Write any one preparation method for furan.
8. How is pyridine converted to pyridine N-oxide.
9. What is quantum yield?
10. Define chemiluminiscence.
11. What is an elimination reaction?
12. What are fertilisers? Give two examples.

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

Answer any **FIVE** questions

13. Derive Henderson's equation.
14. Describe reverse osmosis process with neat sulphate.
15. Explain the hybridisation of acetylene.
16. Furan is less aromatic than pyrrole - explain.
17. Describe fluorescence with an example.
18. What is hardness of water? Differentiate temporary and permanent hardness.
19. Explain hydrogen - chlorine reaction.

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

Answer any **THREE** questions

20. What is a buffer? Explain the buffer action in biological systems.
21. Describe the demineralisation technique for the purification of water for domestic use.
22. Explain the mechanism of nitration and sulphonation in benzene.
23. What happens when (i) Furan reacts with maleic anhydride.
    (ii) Pyridine undergoes nucleophilic substitution reaction.
24. Define (i) Grothus Draper law (ii) Stark- Einstein law (iii) Phosphorescence.

B.Sc. DEGREE EXAMINATION,NOVEMBER 2018
I Year I Semester
Allied- Paper I
ALLIED CHEMISTRY - I

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

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

Answer any **TEN** questions

1. What is common ion effect?
2. Differentiate weak and strong electrolytes.
3. Define calorific value of fuel.
4. What is triple super phosphate?
5. Define hybridisation.
6. What are electrophiles.? Give an example.
7. Write any one preparation method for furan.
8. How is pyridine converted to pyridine N-oxide.
9. What is quantum yield?
10. Define chemiluminiscence.
11. What is an elimination reaction?
12. What are fertilisers? Give two examples.

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

Answer any **FIVE** questions

13. Derive Henderson's equation.
14. Describe reverse osmosis process with neat sulphate.
15. Explain the hybridisation of acetylene.
16. Furan is less aromatic than pyrrole - explain.
17. Describe fluorescence with an example.
18. What is hardness of water? Differentiate temporary and permanent hardness.
19. Explain hydrogen - chlorine reaction.

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

Answer any **THREE** questions

20. What is a buffer? Explain the buffer action in biological systems.
21. Describe the demineralisation technique for the purification of water for domestic use.
22. Explain the mechanism of nitration and sulphonation in benzene.
23. What happens when (i) Furan reacts with maleic anhydride.
    (ii) Pyridine undergoes nucleophilic substitution reaction.
24. Define (i) Grothus Draper law (ii) Stark- Einstein law (iii) Phosphorescence.