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B.SC. DEGREE EXAMINATION, APRIL 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. Give an example for strong and weak electrolyte.
- 2. Define pH.
- 3. Mention the composition of water gas.
- 4. Name the salts responsible for temporary hardness.
- 5. What are nucleophiles? Give an example.
- 6. What is elimination reaction?
- 7. Write the structure of furan.
- 8. Give an example for heterocyclic compounds.
- 9. State Grothus Drapper law.
- 10. Define quantum yield.
- 11. Write down the formula of super phosphate.
- 12. Mention the hybridisation in acetylene.

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

Answer any **FIVE** questions

- 13. Explain common ion effect with suitable example.
- 14. How is triple super phosphate prepared?
- 15. What is reverse osmosis? Explain the process.
- 16. Explain the hybridization pattern in benzene.
- 17. Discuss the preparation and properties of thiophene.
- 18. Discuss the photo chemical reaction between hydrogen and chlorine.
- 19. Explain polymerization with suitable examples.

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

Answer any **THREE** questions

- 20. Derive Henderson equation.
- 21. Explain the various stages in the purification of water for domestic purpose.
- 22. Discuss substitution and condensation reactions with suitable examples.
- 23. Give a comparative account of heterocyclic compounds.
- 24. write note on a. photosensitization b. fluorescence c. chemiluminiscence.