B.Sc. DEGREE EXAMINATION,APRIL 2020
I Year I Semester
Allied Chemistry - I

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

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

Answer any **TEN** questions

1. Define isotopes.
2. What is mass defect?
3. How is ammonium sulphate prepared?
4. Define hardness of water
5. What is COD?
6. Name the hybridization takes place in (i) methane (ii) acetylene.
7. Define the terms electrophile and nucleophile.
8. What is steric effect? Give an example.
9. How furan is prepared?
10. Write any uses of chloroform?
11. State stark- Einstein's law
12. Define phosphorescence.

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

Answer any **FIVE** questions

13. Distinguish between nuclear fission and nuclear fusion reaction.
14. How is urea manufacture? Give its uses.
15. Give any two methods for the purification of water for domestic use.
16. Explain the following? (i) Elimination reaction (ii) Inductive effect
17. Write a note on Keto –enol tautomerism
18. Explain the preparation and uses of Teflon.
19. Discuss H_2 – Cl_2 reaction.

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

Answer any **THREE** questions

20. a) Discuss group displacement law with examples.
    b) Explain the application of radioactivity in carbon dating.
21. a) Explain the following (i) LPG (ii) Natural gas
    b) How is hardness of water removed by Zeolite method?
22. Explain the following
    (i) Addition reaction (ii) Polymerisation reaction (iii) Resonance
23. Explain the preparation and uses of BHC and DDT.
24. Write note on the following
    (i) Photosensitisation (ii) Chemiluminescence (iii) Quantum yield

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