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

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

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

Answer any **TEN** questions

1. What are mono and polysaccharides? Give examples.
2. How does glucose react with con.HI?
3. Draw the ring structure of glucose.
4. Define and give example of a local anaesthetic.
5. What are the requisites of a good fuel?
6. Write the composition and uses of semi water gas.
7. How is urea prepared?
8. Write any one method of preparation of Ammonium sulphate.
9. Define quantum yield.
10. Give an example each for strong and weak electrolytes.
11. What would be the pH of N/100 H_2SO_4?
12. What is an electrochemical cell?

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

Answer any **FIVE** questions

13. Complete the following reaction
(a)$Fructose + Na - Hg \rightarrow$? (b) $Fructose + con.HNO_3 \rightarrow$?
14. Explain the zwitter ion property of an amino acid in detail.
15. Write the composition and uses of (i) water gas and (ii) producer gas.
16. Explain the preparation and uses of Superphosphate of Lime.
17. State the Laws of photochemistry.
18. What is photosensitizer ? Give an example.
19. Mention the significance of buffer solutions in biological system.

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

Answer any **THREE** questions

20. (a) Explain the cause and treatment of diabetes. (5+5)
    (b)Explain the Bergmann method for Peptide synthesis
21. (a) Define and give example each for - analgesic and antipyretic. (5+5)
    (b) Distinguish DNA and RNA.
22. Discuss in detail the preparation, property and uses of silicone.
23. Write short notes on (i) Flourescence (ii) Phosphorescence.
24. Explain the principle and working of (i) Normal Hydrogen Electrode and (ii) calomel electrode.

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