B.Sc. DEGREE EXAMINATION,NOVEMBER 2019
I Year II Semester
Allied Chemistry -II

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

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

Answer any **TEN** questions

1. How does glucose reacts with (i) Br_2/H_2O (ii) Na/Hg.
2. Write the Strecker synthesis for the preparation of glycine.
3. Name the bases present in DNA and RNA.
4. Define antipyretics and give one example.
5. Write the composition of water gas and semi-water gas.
6. What are the characteristics of a good fuel?
7. What are NPK fertilizers?
8. How urea is prepared?
9. Define Quantum Yield.
10. What is chemiluminescence? Give an example.
11. What do you mean by the term common ion effect?
12. What are buffer solutions? Give example.

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

Answer any **FIVE** questions

13. Draw the ring structures of glucose and fructose.
14. How polypeptides are synthsised?
15. Write about the causes and treatment of cancer.
16. Write the composition and uses of (i) carburetted water gas (ii) producer gas
17. State Grothus-Draper's law and Stark-Einstein law.
18. How buffer action is helpful in biological system?
19. For the cell , $Zn|Zn^{2+}||Cu^{2+}|Cu$, (i) Write down the electrochemical reaction, (ii)Calculate the emf of the cell at 298K { $Zn^{2+}|Zn = 0.763$ V, $Cu^{2+} |Cu = +0.337$ V

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

Answer any **THREE** questions

20. How glucose is converted into fructose and vice versa?

21. Write in detail about the cause and treatment of Diabetes.

22. Explain the preparation, properties and uses of silicones.

23. Write a detailed account on the following (i) Flourescence (ii) Phosphorescence

24. How the Calomel electrode is used in the measurement of electrode potential?

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