

SESSIONAL EXAMINATION-2023

NORTH GAUHATI COLLEGE

B. Sc SEMESTER-5 (CBCS)

SUB: CHEMISTRY (Honours)

Paper title: Organic Chemistry

Paper code-CHE-HC-5016

TOTAL MARKS: 30

TIME: 1 Hr

*The figures in the margin indicate full marks for the questions*

Answer any three questions:.

1.     a) What do you mean by nucleoside, nucleotide and nucleic acid?                     3  
       b) Discuss about different bases present in RNA and DNA.                     6  
       c) Give the structure of ribose sugar present in DNA.                     1
2.     a) Write in brief the biological function of nucleic acids.                     6  
       b) Write the names of two essential and two non-essential amino acids.                     4
3.     a) How can you prepare  $\alpha$ -amino acid from an aldehyde?                     2  
       b) What do you mean by acidic amino acid and basic amino acid?                     2  
       d) What is Zwitterion and isoelectric point?                     4  
       d) How do the amino acids form the Protein?                     2
- 4.a) Discuss the classification of proteins based on molecular shape & function.                     5  
       b) Write three characteristics of enzyme, Discuss the enzyme action on the basis of Lock and Key model.                     5
5. a) What are lipids? What do you mean by saponification value?                     4  
       b) What do you mean by metabolism ? Give examples of catabolism and anabolism. How ATP is an Universal currency of cellular energy?                     6

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