GIET UNIVERSITY, GUNUPUR – 765022

RD19MSC018

Roll No: | | | | | | |

Total Number of Pages : 1 AR-19 M. Sc

M.Sc 1ST SEMESTER REGULAR EXAMINATIONS, NOV/DEC 2019-20

BTPC102-BIOCHEMISTRY

Time: 3 Hours Max Marks: 80

The figures in the right hand margin indicate marks.

SECTION A

Q.1 Write notes on: **[4 X4 =16]**

a Properties of water

b 3D structure of protein

c Glycolysis

d Role of Cytochromes in ETC

e De novo Pyrimidine synthesis

f t-RNA

OR

2. Answer all questions from the following **[2 x 8 =16]**

a What is the concentration of OH^- in a solution with an H^+ concentration of 1.3×10^{-4} M?

b Lactose is a sugar composed of _____ & _____.

c The amino acids in a protein are joined by which bond?

d Define nucleotides.

e What is the ratio of H and O in the composition of carbohydrate molecule?

f What is oxidative phosphorylation?

g What is the role of antenna pigments in photosynthesis?

h What is the structural unit of branched chain of glycogen?

SECTION-B

3. Answer all Questions: **[16 x4 =64]**

a Give an account of classification, structure and properties of amino acids.

OR

b Write the principles and steps of protein sequencing.

4.

a Define Carbohydrates. Classify them with suitable examples.

OR

b What are membrane lipids? Discuss on their structure and importance.

5.

a What is β-oxidation? Describe the process along with its energetic.

OR

b Give the sequential events of Kreb's cycle and mention its significance.

6.

a Describe the Watson-Crick model for the structure of DNA and compare it with other available forms.

OR

b Describe the molecular mechanism of photophosphorylation.