



**WEST BENGAL STATE UNIVERSITY**

B.Sc. Honours 2nd Semester Examination, 2020

**PHYACOR04T-PHYSIOLOGY (CC4)**

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.  
Candidates should answer in their own words and adhere to the word limit as practicable.  
All symbols are of usual significance.*

**Answer any five questions from the following**

8×5 = 40

1. (a) What do you mean by the term Glycome? 1+2+4+1  
(b) Name two pentose and two hexose monosaccharides.  
(c) Write a short note on Epimers.  
(d) Name a plant polysaccharide.
  
2. (a) With proper diagram, elucidate aldose-ketose isomerism of monosaccharides. 3+3+2  
(b) What are amino sugars? Give an example of amino sugar.  
(c) Why is sucrose a non-reducing sugar?
  
3. (a) Describe the structure and function of Phospholipids. 4+1+1+2  
(b) Name the nitrogenous base present in Lecithin.  
(c) How many double bonds are present in Arachidonic acid?  
(d) What is Rancidity?
  
4. (a) Describe the structure of steroids. 3+3+2  
(b) State the functions of cholesterol.  
(c) What are micelles?
  
5. (a) Classify proteins with suitable examples. 5+1+2  
(b) Name the sulphur containing essential amino acid.  
(c) What are zwitterions?
  
6. (a) Mention the steps involved in the formation of Glutathione. 4+3+1  
(b) Name the bonds involved in stabilising the protein structure.  
(c) What is an imino acid? Give an example.
  
7. (a) What is tautomerism? 3+2+2+1  
(b) What is Chargaff's rule?

(c) What is a nucleoside?

(d) What are Ribozymes?

8. (a) Describe, with a suitable diagram, the Watson-Crick model of DNA.

5+3

(b) Write a short note on DNA denaturation.

**N.B. :** *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

—X—