



UNIVERSITY OF NORTH BENGAL
B.Sc. Honours 1st Semester Examination, 2020

CC2-PHYSIOLOGY

ASSIGNMENT

Full Marks: 40

The figures in the margin indicate full marks.

Attempt any two from the following

20×2 = 40

1. (a) What is pH and pOH? What is the normal pH of human blood? 3+1
(b) Discuss the physiological significance of buffer solutions — with example. 6
(c) Briefly describe the Henderson-Hasselbalch equation. What is the significance of Henderson-Hasselbalch equation? 6+4

2. (a) What do you understand by lyophobic and lyophilic colloids? 2+2
(b) Discuss the physiological important of colloids? 5
(c) What do you mean by Michaelis constant? State the differences between hydrogen bond and covalent bond? 2+4
(d) State the basic principle of electrophoresis. 5

3. (a) Describe the important properties of enzyme. 4
(b) Explain the significance of V_{max} and K_m . 2+2
(c) Discuss the phenomenon of “Induced Fit: using hexokinase as an example? 6
(d) Define rate limiting enzyme? Write two name and function of rate limiting enzymes? 2+2+2

4. (a) What is buffer system? Name two important physiological buffer? 2+2
(b) State the physiological significance of osmosis and diffusion. 3+3
(c) Write short notes on any **five** of the following: 5×2
Ribozymes, Dialysis, Abzymes, Liposome, Surface tension, Micelle

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