



**K21U 6822**

Reg. No. : .....

Name : .....

**I Semester B.Sc. Degree (C.B.C.S.S. – O.B.E. – Regular/Supplementary/  
Improvement) Examination, November 2021  
(2019 Admission Onwards)**

**COMPLEMENTARY ELECTIVE COURSE IN PHYSIOLOGY  
1C01PLY : Biological Chemistry**

Time : 3 Hours

Max. Marks : 32

- I. Essay questions. Answer **any two**. **(2×6=12)**
- 1) Define enzyme inhibition. Explain in detail the different types of inhibitions.
  - 2) Explain the role of liver in metabolism.
  - 3) Define lipids and classify them with suitable examples.
  - 4) Explain in detail the structural organization of proteins.
- II. Short essay questions. Answer **any two**. **(2×3=6)**
- 5) Define polysaccharides. Classify them and write their importance.
  - 6) Describe the Henderson-Hasselbalch equation.
  - 7) Write a note on biological significance of proteins.
- III. Short answer questions. Answer **any six**. **(6×2=12)**
- 8) What is coenzyme ?
  - 9) Give a brief note on essential and non-essential amino acids.
  - 10) Write the first law of thermodynamics.
  - 11) Distinguish between saturated and unsaturated fatty acids. Give example.
  - 12) What is isomerase ? Give example.
  - 13) What is biological buffer ?
  - 14) Give a note on non-covalent bonds.
  - 15) Explain Michaelis-Menten equation.

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(4×0.5=2)

IV. Multiple choice questions. Answer **all**.

- 16) The polysaccharide found in the exoskeleton of invertebrates is
- A) Pectin
  - B) Chitin
  - C) Cellulose
  - D) Chondroitin sulphate
- 17) At isoelectric pH, an amino acid exists as
- A) Anion
  - B) Cation
  - C) Zwitterion
  - D) Undissociated molecule
- 18) Zymogen is
- A) An intracellular enzyme
  - B) Serum enzyme
  - C) A complete extracellular enzyme
  - D) An inactivated enzyme
- 19)  $\alpha$ -helix is stabilized by
- A) Hydrogen bonds
  - B) Disulphide bonds
  - C) Ionic bonds
  - D) Non-polar bonds
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