



K20U 3205

Reg. No. :

Name :

**I Semester B.Sc. Degree (CBCSS-Supplementary)
Examination, November 2020
(2014 – 2018 Admissions)
COMPLEMENTARY COURSE IN PHYSIOLOGY
1C01PLY : Biological Chemistry**

Time : 3 Hours

Max. Marks : 32

- I. Answer **any one**. (1×6=6)
- 1) Explain beta oxidation.
 - 2) Explain mono-, di- and polysaccharides and give their biological function.
- II. Answer **any one**. (1×6=6)
- 3) What are Essential, Semi-essential and Non-essential amino acids ? What is the biological role of protein ?
 - 4) Explain the bond or interaction in biomolecules.
- III. Answer **any four**. (4×3=12)
- 5) Water is dipolar in nature. Why ?
 - 6) Alpha helical structure of protein.
 - 7) Lock and key hypothesis.
 - 8) ATP.
 - 9) Factors influencing enzyme action.
 - 10) Draw the linear chain structure of a monosaccharide.
- IV. Answer **any six**. (6×1=6)
- 11) Transamination.
 - 12) Gluconeogenesis.
 - 13) Hexokinase.
 - 14) Active site.
 - 15) Macromolecule.
 - 16) Reversible inhibition.
 - 17) Role of liver in metabolism.
 - 18) Activation energy.

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(2×1=2)

V. Answer the following.

19) Match the following.

- | | | |
|----------------------|---|----------------------------------|
| a) V_{max} | - | Glycosidic bond |
| b) pKa | - | Protein |
| c) alpha 1-4 linkage | - | Michaelis-Menten equation |
| d) Histone | - | Henderson-Hassel balch equation. |

20) Choose the right answer from the options givens.

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|---|-------------|------------|---------------|
| a) A co-enzyme in oxidation-reduction reaction | | | |
| A) NADP | B) CoA | C) Biotin | D) Folic acid |
| b) Table sugar | | | |
| A) Glucose | B) Fructose | C) Sucrose | D) Ribose |
| c) Find the odd one out. | | | |
| A) Elastin | B) Ligases | C) Myosin | D) Micelle |
| d) Co-factor of Hexokinase enzyme in Glycolysis | | | |
| A) Mg^{++} | B) Ca^{+} | C) K^{+} | D) Cl^{-} |
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