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RNLKWC/B.Sc.-CBCS/IS/PHY/H/C2T/22

2022

Physiology

[HONOURS]

(CBCS)

(B.Sc. First Semester End Examination-2022)

PAPER-C2T

*Full Marks: 40*

*Time: 02 Hrs*

*The figures in the right hand margin indicate marks*

*Candidates are required to give their answers in their own words as far as practicable*

*Illustrate the answers wherever necessary*

1. Answer any five questions of the following: 5x2=10
  - a) Define epimer and anomer.
  - b) Name two function of phospholipids.
  - c) What are Zwitterion?
  - d) What is the significance of saponification number?
  - e) Explain the mechanism of coupling of amino acid by -----
  - f) Define the Phi and Psi angles.
  - g) Differentiate between A-DNA, B-DNA and Z-DNA
  - h) Why amino acids are called ampholytes?
  
2. Answer any four questions of the following: 4x5 = 20
  - a) Differentiate between alpha helices and  $\beta$  plated sheets.

(2)

- b) Explain the factors responsible for the denaturation of proteins.
- c) Discuss the structure of m-RNA with its significance.
- d) What is the significance of Reichert - Meissl number? Define cis-trans isomerism.
- e) Describe the typical helical structure of DNA with a suitable diagram.
- f) State the physiological importance of glycoproteins and cellulose.
- g) Give the functional classification of the amino acids.

$$2\frac{1}{2} + 2\frac{1}{2}$$

3. Answer any one question:

1x10 = 10

- a) Classify lipoproteins with an example of each. Give the physiological significance of cholesterol.
  - b) Describe the forces that stabilize the different levels of structure of proteins. State the clover leaf structure of particular RNA.
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