



MBH-003-001210 Seat No. _____

B. Sc. (Sem. II) (CBCS) Examination

March / April - 2018

**BT - 201 : Fundamentals of Biochem,
Biocomputing & Biostat**

(Old Course)

Faculty Code : 003

Subject Code : 001210

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

Instructions : (1) Q. 1 is compulsory, one mark questions of 20 marks.

(2) Figures to the right indicate marks.

1 One mark objective Questions : **20**

- (1) Who discovered the double helical structure of DNA?
- (2) The optical rotation of β -D-Glucose is _____
- (3) Give the full form of URL.
- (4) The concept of pH was introduced by _____
- (5) Each turn of α -helix contain _____ amino acids.
- (6) Which functional group present in proline?
- (7) The value of probability is ranging from _____ to _____.
- (8) Water is the universal solvent. TRUE/FALSE
- (9) According to Lewis theory, _____ are electron acceptor.
- (10) Which polysaccharide forms a gel around the ovum?
- (11) MS-Excel worksheet contains _____ rows and _____ columns.
- (12) The lack of symmetry in a frequency is known as _____.

- (13) The nucleoside consists of _____ and _____.
- (14) _____ is the heart of computer.
- (15) The temperature at which half of the helical structure of DNA lost is known as _____.
- (16) Which amino acid involved in formation of disulfide bond?
- (17) File extension for web page is _____.
- (18) RNA follow the Chargaff's rule. TRUE/FALSE.
- (19) The deficiency of ascorbic acid cause _____.
- (20) Which component present as alcohol in glycerophospholipid?

- 2** (A) Write any **three** out of six : **6**
- (1) What is peptide bond?
 - (2) Define : Buffer.
 - (3) Write about email.
 - (4) Define : Median.
 - (5) What is proteoglycan?
 - (6) What is hydrogen bond?
- (B) Write any **three** out of six : **9**
- (1) Give the difference between DNA and RNA.
 - (2) Describe Properties of amino acids.
 - (3) Explain: Ionic Bond.
 - (4) Write a note on correlation and regression.
 - (5) Describe HTML.
 - (6) Explain: Cholesterol.
- (C) Write any **two** out of five : **10**
- (1) Explain: Structure of protein.
 - (2) Explain: Classification of lipid.
 - (3) Write a note on properties of water.
 - (4) Explain: Microsoft PowerPoint.
 - (5) Explain: Water soluble vitamins.

- 3 (A) Write any **three** out of six : 6
- (1) What is ribozymes?
 - (2) What is denaturation and renaturation?
 - (3) Define: Epimers. Give its example.
 - (4) Define: Essential amino acid, asymmetric carbon.
 - (5) What is variance? Give its equation.
 - (6) State Chargaff's rule.
- (B) Write any **three** out of six : 9
- (1) Write a note on DNA double helical structure.
 - (2) Explain: Parts of computer.
 - (3) Write about laws of thermodynamics.
 - (4) Find the standard deviation of the following data :
48, 43, 65, 57, 78, 59, 31, 60, 37, 48
 - (5) Explain structure and function of t-RNA.
 - (6) Write about derivatives of monosaccharide.
- (C) Write any **two** out of five : 10
- (1) Explain: Covalent Bond.
 - (2) Explain: Polysaccharide.
 - (3) Write a note on DNA as genetic material.
 - (4) Write about measure of central tendency.
 - (5) Discuss about internet.
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