



AAN-5709

Seat No. _____

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

April / May - 2018

CBT-I-II : Molecules of Life

(CC - 201)

Time : 3 Hours]

[Total Marks : 70

1 Attempted all questions :

15×1=15

(1) Amino acids are

(A) Building blocks of proteins

(B) Polypeptide blocks

(C) Blocks of organisms

(D) Polyhydro esters

(2) Example of aldo hexose

(A) fructose

(B) galactose

(C) glucose

(D) All

(3) Animal carbohydrate

(A) Glycogen

(B) Insulin

(C) Cellulose

(D) (B) and (C)

(4) Sugar of DNA contains carbon

(A) C6

(B) C 12

(C) C5

(D) C3

(5) Buffer solution

(A) Always pH-7

(B) Maintain pH

(C) Depend on H⁺ ions

(D) None of these

(6) Distance between base pair of DNA

(A) 3.4

(B) 4.5

(C) 3.5

(D) 3.6

Answering the followings :

- (7) RNA Full form
- (8) Example of amino acids
- (9) Examples of mucosacchride
- (10) Types of DNA.

(11-15) Match the following :

- | | |
|--------------------|----------------|
| (A) Polysaccharide | (1) Amino acid |
| (B) Hemoglobin | (2) Fatty acid |
| (C) Histidine | (3) Lipid |
| (D) Glycerol | (4) Chitin |
| (E) Terpenes | (5) Protein |

2 Answer any five (5) questions : $5 \times 5 = 25$

- (1) Define pH and pH scales with examples.
- (2) Describe classification of carbohydrates with examples.
- (3) Describe vitamins and types.
- (4) Define buffer solution.
- (5) Explain water structure and properties.
- (6) Describe functions of carbohydrates .
- (7) Describe amino acids and classification.

3 Answer any three (3) question : $10 \times 3 = 30$

- (1) Explain polysaccharide, structure and functions with examples.
- (2) Describe double helix structure of DNA .
- (3) Describe various chemical bonds.
- (4) Explain protein, classification with examples.