

SEAT No. _____

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SARDAR PATEL UNIVERSITY

M.Sc. Integrated Biotechnology, First Semester Examination (NC)

**Saturday, 21st April,
2018**

2.00 p.m. to 5.00 p.m.

Chemistry of life: PS01CIGB21

Total Marks : 70

Note : (i) All questions are to be attempted. (ii) Figures to the right indicate marks.

- Q.1 Choose the correct option for the following: (08)**
- 1 Maltose is a _____ sugar
a) Monosaccharide c) polysaccharide
b) Disaccharide d) None of above
 - 2 _____ is a example of polysaccharide
a) Glucose c) Galactose
b) Fructose d) Cellulose
 - 3 _____ is a aromatic amino acid
a) Tyrosine c) tryptophan
b) Phenylalanine d) All of above
 - 4 _____ is present between two amino acid
a) Peptide bond c) Hydrogen bond
b) Disulfide bond d) ionic bond
 - 5 Cerebrosides is an example of _____
a) Glycolipid c) Sugar
b) Protien d) All of Above
 - 6 Cholesterol is a _____
a) Lipid c) Carbohydrate
b) Nucleic acid d) Amino acid
 - 7 Cytosine is an example _____
a) Amino acid c) Purine
b) Lipid d) Pyrimidine
 - 8 How many numbers of base pair is present in one turn of B form of DNA helix?
a) 9 c) 11
b) 10 d) 12

- Q.2 Answer the following (Any Seven) (14)**
1. What is isomerism?
 2. Write about polysaccharides.
 3. Define : Osazone formation.
 4. Write down basic role of triglycerol.

(P.T.O.)

5. What is halogenation?
6. Enlist essential amino acids. Draw their structure.
7. Define denaturation of protein.
8. Distinguish : Nucleoside and Nucleotide.
9. Write down a difference between DNA and RNA.

Q.3 (a) Discuss the structure and function of three biochemically important disaccharides. (06)

(b) Write a detail note on Monosaccharide. (06)

OR

(b) Explain inversion of sucrose. (06)

Q.4 (a) Define glycolipid. Explain Bloor's classification of lipid. (06)

(b) Draw structure and write functions of cholesterol. (06)

OR

(b) Discuss about various functions of phospholipids. (06)

Q.5 (a) Give an account of the determination of primary structure of protein. (06)

(b) Write a detail note on functions of protein and peptide linkage. (06)

OR

(b) Explain physical property of amino acids. (06)

Q.6 (a) Describe Watson and crick model of DNA. (06)

(b) Define nucleotides. Discuss the structure of nucleotides. (06)

OR

(b) Define the term nucleic acid and explain structure of various nucleic acid. (06)

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