

SEAT No. _____



No. of Printed Pages : 2

[39/A-4]

SARDAR PATEL UNIVERSITY

B.Sc. Semester-III

External Examination November 2022

Biochemistry of Biomolecules-1

CODE: - US03CBCH51

Date: 15/11/2022,

Time: 10:00 am to 1:00 pm

Maximum Marks: 70

Instructions:

1. Attempt the question in separate answer books.
2. Figure to the right indicate marks.
3. Make suitable assumptions wherever necessary and state them.

Q-1

Do as directed. (M.C.Q)

[10]

- (1) Simplest form of carbohydrates have general formula _____
a) $C_n(H_2O)_{n-1}$ b) $C_n(H_2O)_n$ c) $C_n(H_2O)_{n-2}$ d) $C_{n-1}(H_2O)_n$
- (2) Glucose is aldohexose and fructose is _____
a) Aldotriose b) Ketotriose c) Ketopentose d) Ketohexose.
- (3) Which of the following is disaccharide?
a) Raffinose b) Inulin c) Trehalose d) Cellulose
- (4) ATP is a _____
a) Nucleoside b) Nucleotide c) Vitamin d) Nucleic acid
- (5) Purine base found in RNA is _____
a) Cytosine b) Thymine c) Guanine d) Uracil
- (6) Vitamin C is present in _____
a) Orange b) Mango c) Amla d) All of the above
- (7) Which of the following vitamin is also known as cobalamine?
a) Vitamin B11 b) Vitamin B2 c) Vitamin B12 d) Vitamin B6
- (8) Which of the following disease is caused by the deficiency of Niacin?
a) Scurvy b) Ricketts c) Pellagra d) Anaemia
- (9) Retinol is the scientific name of _____
a) Vitamin A b) Vitamin D c) Vitamin K d) Vitamin C
- (10) Name the vitamin which takes part in blood clotting?
a) Vitamin K. b) Vitamin E c) Vitamin D d) Folic acid

P.T.O.

- Q2 Write answer in brief { Attempt any 10} [20]**
- (1) Define epimers with example.
 - (2) What is mutarotation?
 - (3) Draw the cyclic structure of lactose.

 - (4) Write any three differences between DNA and RNA.
 - (5) Draw the structure of Uracil and Thymine.
 - (6) Draw the structure of DNA double helix.
 - (7) Write symptoms of scurvy.
 - (8) Define vitamin and coenzyme.
 - (9) What is daily requirement of vitamin B1 and B2?
 - (10) What is daily requirement of vitamin A and D?
 - (11) What are dietary sources of vitamin K?
 - (12) What are best plant foods provide vitamin A?
- Q3 Answer the followings: [10]**
- (A) Write about classification of carbohydrates with example.
 - (B) Write short notes on Glycogen.
- Or
- (A) Give an account on osazone formation.
 - (B) Discuss about functions of carbohydrate.
- Q4 Answer the followings: [10]**
- (A) Discuss Watson and Crick model for structure of DNA.
 - (B) Draw the structure of dATP, GTP, CMP, UDP, ADP.
- OR
- (A) Give various types of RNA and discuss the structure of t-RNA.
 - (B) Write notes on ribozymes.
- Q5 Answer the followings: [10]**
- (A) Classify vitamins with example.
 - (B) Write biochemical functions of vitamin C
- OR
- (A) Write functions and dietary sources of Niacin.
 - (B) Write functions and dietary sources of Cobalamin.
- Q.6 Answer the followings: [10]**
- (A) Describe in detail about Wald visual cycle.
 - (B) Write biochemical functions of vitamin D.
- OR
- (A) Write about functions and dietary sources of vitamin E.
 - (B) Write a note on Ricketts.