

(i) Printed Pages : 3

Roll No.

(ii) Questions : 9

Sub. Code :

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Exam. Code :

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B.Sc. (Hons.) Biotechnology 2nd Semester

(2054)

BASIC BIOCHEMISTRY

Paper : BIOT-204-T

Time Allowed : Three Hours]

[Maximum Marks : 67

Note :— Attempt *five* questions; at least *one* question is compulsory from each section, question no. 1 is compulsory.

1. Give the answer of following questions in very brief :

- (i) What is buffer ?
- (ii) Write the value of acidic pH.
- (iii) Give the name of glucose anomers.
- (iv) Write name of noncoding RNA.
- (v) Give name of trisaccharide.
- (vi) Function of thyroid gland.
- (vii) Give name of one sterol.

7×1

SECTION—I

2. (a) Write the physiocochemical properties of water. Also give the life supporting properties of water.
- (b) What is the Henson Hasselbalch equation (HH) ? What is the significance of HH equation ? 7,8
3. (a) Write and draw the structure of cellulose and its significance.
- (b) Explain the major difference between starch and glycogen. 8,7

SECTION—II

4. (a) Briefly describe the various biological roles of lipids in biological system.
- (b) Write a short note on TAGs. 7,8
5. (a) Write about the two important membrane lipids.
- (b) Mention the positive and negative roles of cholesterol. 8,7

SECTION—III

6. (a) What is the insulin ? Explain the clinical significance of this hormone.
- (b) Describe about the types of hormones. 7,8
7. (a) Write a short note on double helical structure of DNA.
- (b) Give the various roles of nucleotides. 8,7

SECTION—IV

8. (a) What is peptide bond ? Write the relationship between Ramachandran Plot and peptide bonds. 8,7
- (b) Briefly describe about the one secondary structure of protein.
9. (a) Write a short note on myoglobin.
- (b) Write the five chemical reactions of amino acids. 8,7