

SECTION—B

5. What do you understand by Amino acids ? Draw chemical structures for different essential and non-essential amino acids. 8.5
6. Write notes on any *two* of the following (4.25 marks each) :—
- (a) Purine and pyrimidine bases
 - (b) Determination of amino acid sequence of proteins
 - (c) tRNAs 8.5
7. Give a detailed account of Genetic code. 8.5
8. Write notes on any *two* of the following (4.25 marks each) :— 8.5
- (a) Types of DNA
 - (b) Translation initiation complex
 - (c) Alpha helix structure of proteins.

SECTION—C

9. Discuss in brief (2 marks each) :—
- (i) Biomolecules
 - (ii) Prokaryotic cell
 - (iii) Telophase of mitosis
 - (iv) Chitin
 - (v) Gluconeogenesis
 - (vi) Liposomes
 - (vii) Zwitter ion form of amino acids
 - (viii) Enzymes
 - (ix) Translation
 - (x) RNA polymerase
 - (xi) Peptide bond. 11×2=22

Roll No.

Total No. of Pages : 2

PC 12972-N

K-8/2111

BIOLOGY FOR CHEMISTS—1105T

Semester—I

Time Allowed : Three Hours]

[Maximum Marks : 55

Note :- The candidates are required to attempt *five* questions *two* questions each from Sections A & B, the entire Section C which is compulsory.

SECTION—A

1. Draw a well labelled diagram to show structure of a plant cell. Discuss in brief. 8
2. Write notes on any *two* of the following (4 marks each) :— 8
 - (a) Structure of nucleus
 - (b) Structure and functions of ribosomes
 - (c) Anabolism.
3. What do you understand by Krebs's cycle ? With the help of diagram, give a brief account of Krebs's cycle. 8
4. Write notes on any two of the following (4 marks each) :— 8
 - (a) Storage lipids
 - (b) Lipids as co-factors and pigments
 - (c) Lipid aggregates.