

## B.Sc. Sem.-1 Examination

DSC-M-113T

Bio-Technology

January-2024

Time : 1-00 Hour]

[Max. Marks : 25

1. (a). Explain different divisions of biotechnology. 07  
(b). What is nucleoside and nucleotide? 03

OR

2. (a). Describe the structure and functions of B-DNA. 07  
(b). Write about structure and function of mRNA. 03

3. (a). Discuss classification of amino acids based on "R" group. 10

OR

4. (a). Explain structural organization of proteins with examples. 10

**5. Answer any five of the following:**

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1. Who coined the term "Biotechnology"?
2. Name the pyrimidine base found in RNA but not DNA.
3. Which of these statements are INCORRECT according to Chargaff's rules?
  - a) The molar ratio of A to T or C to G = 1
  - b) The sum of purine = sum of pyrimidine
  - c) The % C+G  $\neq$  % A+T
  - d) The composition of DNA remains the same in all the species
4. An amino acid is an amphoteric molecule.
  - a) True
  - b) False
5. ----- is used to measure optical activity.
6. How is the secondary structure of a protein stabilized?