Seat No. : _____

# FF-123

**February-2025**

## B.Sc., Sem.-I

## DSC-M-BT-113T : Biotechnology (Minor)

## (Introduction to Biotechnology & Molecules of Life)

**Time : 1:00 Hour]** **[Max. Marks : 25**

1. Describe in detail the various features of the Watson and Crick model of DNA and how it obeys Chargaff's rules. **10**

**OR**

1. (A) Explain how progress in Biotechnology has helped agriculture and health sector development. **5**

1. (B) Describe the various functions of RNA in a cell. **5**

2. Describe the different types of protein structure organization. Explain alpha helix and beta pleated sheet structures in detail. **10**

**OR**

2. (A) Describe in brief: Biological importance of amino acids. **5**

2. (B) Describe the various amino acids with non-polar functional groups. **5**

3. Short Answer / MCQ : (Any **5** out of **6**) **5**

   (a) Name one contribution of physics to biotechnology.

   (b) Uracil is present in DNA but not in RNA. (True or False)

   (c) Which discovery was given the Nobel prize for Physiology and medicine for 2024 ?

   (d) Name any one protein which functions as a hormone.

   (e) What is zwitterion ?

   (f) What is the prosthetic group present in haemoglobin ?

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