

Seat No. : \_\_\_\_\_

# MI-206

May-2025

B.Sc., Sem.-II

## DSC-M-BT-123T : Biotechnology (Minor) (Cell Biology)

Time : 1:00 Hour]

[Max. Marks : 25

1. Explain in detail ethical and societal considerations and impacts, surrounding biotechnological advancements within the Indian context. **10**

**OR**

1. (A) Explain with flow diagram the three kingdom classification. **5**  
(B) What are the different theories of origin of life ? Explain any one of them. **5**

2. Discuss cytoskeleton elements and architecture. **10**

**OR**

2. (A) Give the ultrastructure and chemistry of cell membrane with diagram. **5**  
(B) Explain the fluid mosaic model with a neat labelled diagram. **5**

3. Answer the following : (Any **five** out of **six**) **5**

- (1) Write the difference between Bacteria and Archaea.  
(2) Who proposed cell theory ?  
(3) What is the contribution of J.D. Watson ?  
(4) Write the types of cellular junctions.  
(5) Write one difference between cilia and flagella.  
(6) Define facilitated diffusion with example.
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