

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

# AC-117

April-2023

B.Sc., Sem.-VI

## CC-308 : Biotechnology (Agriculture Biotechnology)

Time : 2:30 Hours]

[Max. Marks : 70

- Instructions :**
- (1) Draw figures where necessary.
  - (2) Show question number against each answer.
  - (3) Figures in right are marks.

1. Write a detailed note on the Sericulture, its applications. 14

**OR**

(A) Write a note on gene bank of endangered species Asiatic Lion. 7

(B) Discuss production of transgenic animals by pronuclear injection. 7

2. Elaborate Agrobacterium mediated gene transfer and its application. 14

**OR**

(A) Explain RNA induced Gene silencing with diagrams. 7

(B) Write a note on Chloroplast genetic engineering and its significance. 7

3. Discuss production of virus free plants in detail. 14

**OR**

(A) Write a note on Somatic embryogenesis. 7

(B) What is a callus ? Explain process of Callus culture. 7

4. What is Bt Cotton ? Illustrate mechanism of delta-endotoxin in detail. 14

**OR**

(A) Write a note on Bioherbicide. 7

(B) Explain Protein and vitamin enhancement in GM crops. 7

5. Answer the following : (any **seven**)

**14**

- (1) What is molecular farming ?
  - (2) Give two examples of edible vaccine.
  - (3) What is soma clonal variation ?
  - (4) What is shuttle vector ?
  - (5) Define endangered species.
  - (6) Define transposon.
  - (7) What is the role of NaOCl in plant tissue culture ?
  - (8) Give two examples of Bio-insecticide.
  - (9) What is Pre-biotic ?
  - (10) Give two examples of Bio-fertilizer.
  - (11) What is RISC complex ?
  - (12) Write two disadvantages of Nuclear gene transfer.
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