2022

Botany

[Honours]

(B.Sc. Sixth Semester End Examination-2022)

PAPER- C14T

Full Marks: 40 ***Time: 02 Hrs***

The figures in the right hand margin indicate marks
Candidates are required to give their answers in their own words as far as practicable
Illustrate the answers wherever necessary

1. **Answer any FIVE ofthefollowing: 5x2=10**
   a. What do you mean by "Superbug"?
   b. What do you mean by gene construct?
   c. What is the role of luciferase?
   d. What is germplasm conservation?
   e. What is totipotency?
   f. Give two properties of M13.
   g. What is humulin?
   h. Draw the structure of pUC 18.

2. **Answer any FOUR ofthefollowing: 4x5=20**
   a. Write short noteson: 2.5+2.5
      i. Moon dust carnations

ii. Edible vaccines

b. What is cryopreservation? Discuss the process of somatic embryogenesis. 1+4

c. Mention four important applications of PCR? What are the limitations of PCR? 4+1

d. Discuss the industrial production of protease using bacteria. 5

e. Distinguish between genomic and c-DNA libraries with suitable sketches. 5

f. What is the role of transgenics in bioremediation? Writ a short note FlavrSavr tomato. 3+2

Answer anyONEquestion: 10x1=10

a. Give a comparative account of Type I & Type II restriction endonucleases. What are shuttle vectors. Draw and describe the YAC.4+2+4

b. Describe *Agrobacterium* mediated gene transfer in plants with suitable diagrams. What are reporter genes? Name two herbicide resistant plants. 7+2+1