

Reg. No. :

Name :

**Sixth Semester B.Sc. Degree (C.B.C.S.S.-OBE – Regular/Supplementary/
Improvement) Examination, April 2025
(2019 to 2022 Admissions)
CORE COURSE IN BOTANY/PLANT SCIENCE
6B12BOT/PLS : Biotechnology and Bioinformatics**

Time : 3 Hours

Max. Marks : 40

**SECTION – A
(Objective Type Questions)**

Answer all.

(4×1=4)

- Which one of the following is a Protein Data Bank ?
a) DDBJ b) Genbank c) EMBL d) Swiss-Prot
- Which is the carbon source of MS medium ?
a) Glucose b) Dextrose c) Sucrose d) Galactose
- Golden rice is a genetically modified crop plant where the incorporated gene is meant for the biosynthesis of
a) Vitamin C b) Vitamin A c) Vitamin D d) Vitamin B
- CCMB is located at
a) New Delhi b) Hyderabad c) Calcutta d) Thiruvananthapuram

**SECTION – B
(Short Essay Questions)**

Answer any eight.

(8×2=16)

- What is proteomics ?
- What is RAPD ?
- Write about Edible vaccines.

P.T.O.

- What is dedifferentiation ?
- Write short note on Tissue engineering.
- Role of nanoparticles in drug delivery.
- What is PAGE ?
- What are Gene editing tools ? Give one example.
- What is SSR ?
- Expand ICAR ? Mention its roles.
- What is Ligase ?
- What is PIR ?

**SECTION – C
(Essay Questions)**

Answer any four.

(4×3=12)

- Which technique is used to produce Flavr Savr tomato ? Mention its benefits.
- Write about Southern blotting and its applications.
- Describe somaclonal variation and its application.
- How Crop protection is done by using nanoparticles ?
- How Androgenic haploids are produced ?
- Write a short note on EMBL.

**SECTION – D
(Long Essay Questions)**

Answer any one.

(1×8=8)

- Explain the different types of Cell suspension culture.
- Explain the Maxam and Gilbert method of DNA sequencing.
- What are the Sequence alignment tools used in bioinformatics ? Mention its applications.