

**RAN-2103001106020005****B.Sc. Biotechnology (Sem. - VI) Examination September - 2025****BT:21 - Plant Biotechnology****Time: 2 Hours]****[Total Marks: 50****સૂચના : / Instructions**

(૧)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the details of signs on your answer book

Name of the Examination:

☛ **B.Sc. Biotechnology (Sem. - VI)**

Name of the Subject :

☛ **BT:21 - Plant Biotechnology**Subject Code No.: **2103001106020005**

Seat No.:

--	--	--	--	--	--

Student's Signature

Q-1. Define Any Four:**(8)**

- Anti-browning compounds
- Laminar Flow Hood
- Germplasm Conservation
- De & Redifferentiation
- Growth Regulators

Q-2. Attempt Any Two:**(14)**

- Write detailed note on Cellular differentiation and Totipotency
- Discuss in detail the preparation of Murashiage and Skoog plant tissue culture medium.
- What are synthetic seeds? Explain its classification and encapsulation.

Q-3. Explain in detail Any Two:**(14)**

- What is micropropagation? Discuss the advantages and disadvantages of micropropagation.
- What is somatic embryogenesis? List out the differences between somatic and zygotic embryos.
- What is cryopreservation? Discuss in detail the various steps involved in this technique.

Q-4. Attempt Any Two of the following: (14)

- a) Discuss the different techniques utilised in protoplast culture in plants.
 - b) What is plating efficiency? Describe three methods for single cell culture technique.
 - c) What are Haploids and Haploid culture? Discuss any two ways for their production.
-