

C060

Total Pages : 3

Roll No.

BOT-554

Plant Molecular Biology and Biotechnology

M.Sc. BOTANY (MSCBOT)

2nd Year Examination, 2022 (June)

Time : 2 Hours]

Max. Marks : 80

Note : This paper is of Eighty (80) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

SECTION–A

(Long Answer Type Questions)

Note : Section 'A' contains Five (05) long answer type questions of Twenty (20) marks each. Learners are required to answer any Two (02) questions only.

(2×20=40)

- 1.** What is a marker? Describe in detail types of markers used in biotechnology.

2. Define Polymerase Chain Reaction (PCR). Discuss its principle, procedure and applications.
3. What is a transgenic plant? Describe the advantages and controversies associated with them.
4. Define micropropagation. Describe stages, importance and limitations of micropropagation.
5. What is restriction endonuclease? Discuss its types in detail.

SECTION-B

(Short Answer Type Questions)

Note : Section 'B' contains Eight (08) short answer type questions of Ten (10) marks each. Learners are required to answer any Four (04) questions only. (4×10=40)

1. Bacteriophage vectors.
2. Totipotency and its expression in-vitro.
3. Differentiate between genomics and proteomics.
4. Intellectual Property Rights.
5. Procedure of ovule culture.

6. Discuss any one secondary metabolites.
 7. Non-repetitive and repetitive DNA.
 8. Minisatellites and microsatellites.
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