

P-54

Total Pages : 3

Roll No.

MBOT-609

Biotechnology

M.Sc. Botany (MSCBOT)

IVth Semester Examination, 2023 (June)

Time : 2 Hours]

[Max. Marks : 35

Note : This paper is of Thirty Five (35) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein. Candidates should limit their answer to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

SECTION–A

(Long Answer Type Questions)

Note : Section 'A' contains Five (05) long answer type questions of Nine and Half (9½) marks each. Learners are required to answer any Two (02) questions only.
(2×9½=19)

- 1.** What is vitro morphogenesis? Describe the methods of plant tissue culture.

2. Write an essay on Pollen and Ovule culture and its application.
3. What is cryopreservation? Describe the method of germplasm storage.
4. What is GM plant ? Describe the steps for developing GM plants.
5. Write short notes on the following :
 - (a) Nutrient Media.
 - (b) Terminator Genes.
 - (c) IPR.

SECTION-B

(Short Answer Type Questions)

Note : Section 'B' contains Eight (08) short answer type questions of Four (04) marks each. Learners are required to answer any Four (04) questions only. (4×4=16)

1. Write a short note on Somatic Hybridization.
2. What is Bioremediation? Write different type of Bioremediation studied by you.

3. Write short notes on the following:
 - (a) Biosensor.
 - (b) Artificial seeds.
 - (c) Callus.

 4. Briefly describe the reporter genes.

 5. What is genomics and its types?

 6. Write Short notes on the following :
 - (a) Protoplast Culture.
 - (b) Marker genes.

 7. Discuss transgenic plants and their benefits.

 8. What is Anther culture ? Describe it.
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