

45081

M.Sc. DEGREE EXAMINATION, MARCH/APRIL 2019.

FOURTH SEMESTER

Biotechnolgy

Paper – I : PLANT BIOTECHNOLOGY

Time : Three hours

Maximum: 75 marks

(No additional sheet will be supplied)

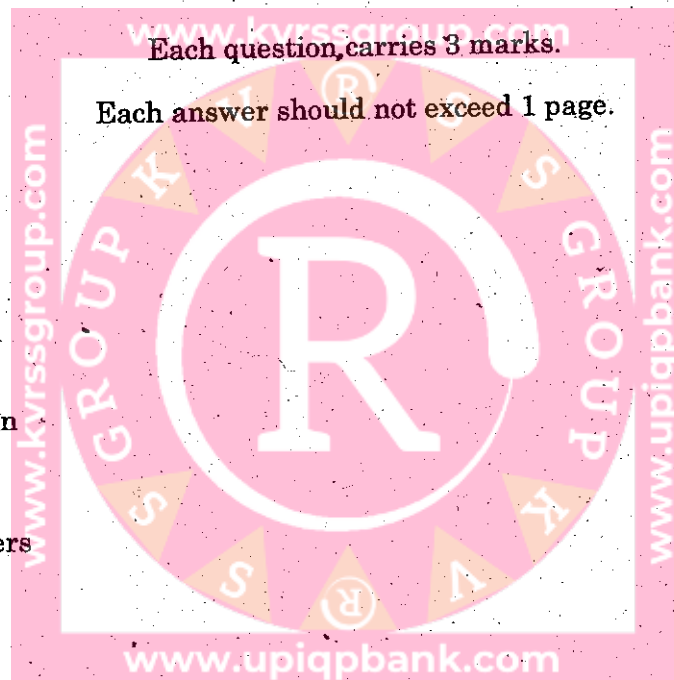
PART A — (5 × 3 = 15 marks)

Answer any FIVE questions.

Each question carries 3 marks.

Each answer should not exceed 1 page.

1. Sterilization
2. Totipotency
3. Vectors
4. Male Sterility
5. Single cell protein
6. Biofertilizer
7. Molecular markers
8. Biopesticides



PART B — (4 × 15 = 60 marks)

Answer ALL questions.

Each question carries 15 marks.

Each answer should not exceed 6 pages.

9. How to organize plant tissue culture lab?

Or

10. Explain the architecture of Chloroplast genome.

11. What are the different methods employed in direct gene transfer?

Or

12. What is gene silencing and explain its applications in Chloroplast transformation?

13. Explain the applications of algae as food, feed and industrial sectors.

Or

14. How to cultivate marine microalgae for products of agar agar?

15. Explain the role of PCR based molecular marker in Plant breeding.

Or

16. How to develop phytodiagnostics based on immunological and molecular techniques?

