



Register Number:
Date: 21/11/2020

ST. JOSEPH'S COLLEGE (AUTONOMOUS), BANGALORE-27
M.Sc. BOTANY - III SEMESTER
SEMESTER EXAMINATION: NOVEMBER 2020
BODE9418: Elective - PLANT TISSUE CULTURE

Time - 2 ½ Hours

Max. Marks - 70

This paper contains ONE printed page and THREE parts
Draw diagrams wherever necessary

A. Define any TEN of the following

10x2=20

1. Acclimatization
2. Auxin-cytokinin ratio
3. Gelling agents
4. Indirect organogenesis
5. De-differentiation
6. Sterilization of the explant
7. TDZ
8. Natural genetic engineers
9. Fusogens
10. Micromanipulator
11. Robotics in PTC
12. Androgenesis

B. Write critical notes on any FIVE of the following

5x6=30

13. Pollen culture and its applications
14. Requirements of plant tissue culture laboratory
15. Growth room conditions
16. Application of plant tissue culture in forestry
17. Somatic hybridization and its importance
18. Axillary bud culture and its significance
19. Composition of plant tissue culture media

C. Give a comprehensive account of any TWO of the following

2x10=20

20. Principles, techniques and applications of protoplast culture
21. a) Instruments used in PTC lab; b) Meristem culture and its applications
22. a) Hairy root culture and its applications; b) Commercialization of plant tissue culture.