

17P435

(Pages: 2)

Name.....

Reg. No.....

FOURTH SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2019

(CUCSS - PG)

(Botany)

CC15P BO4 E15 – PLANT TISSUE CULTURE

(2015 Admission)

Time: Three Hours

Maximum: 36 Weightage

I Answer *all* questions. Each answer should be brief. Each question carries 1 weightage.

1. What are antioxidants?
2. How are haploids produced through tissue culture?
3. Define a callus.
4. Explain the term cellular totipotency.
5. What are Macronutrients?
6. What are the advantages of suspension culture in tissue culture?
7. Write a critical account of embryo culture.
8. Define incubation.
9. Describe aseptic condition.
10. What are secondary metabolites?
11. Mention the role of hardening in tissue culture.
12. What is synseed? Suggest its significance.
13. What is VAM inoculation in tissue culture?
14. What is clonal propagation?

(14 x 1 = 14 Weightage)

II Answer any *seven* questions in not exceeding 100 words. Each question carries 2 weightage.

15. Briefly describe value addition in TC plants.
16. Write the application of callus culture.
17. What is somaclonal variation? What are its advantages?
18. Explain the major sources of contamination in tissue culture.
19. Explain certification of TC plants.
20. Explain the significance of somatic embryogenesis in agriculture.
21. Give an account of plant hormones used in plant tissue culture.
22. Describe major tissue culture ventures in India.
23. Comment on commercial tissue culture production of trees.

24. Describe photoautotrophic micropropagation.

(7 x 2 = 14 Weightage)

III Answer any *two* questions in not exceeding 300 words. Each question carries 4 weightage.

25. Write an essay on bioreactor technology for plant micropropagation.

26. Give a detailed account on virus indexing of tissue cultures plants.

27. Describe different types of tissue culture medium.

28. Explain isolation ,purification and culture of protoplast.

(2 x 4 = 8 Weightage)
