

18P428

(Pages: 2)

Name.....

Reg. No.....

FOURTH SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2020

(CUCSS - PG)

(Regular/Supplementary/Improvement)

CC18P BO4 E15 – PLANT TISSUE CULTURE

(Botany)

(2018 Admission)

Time: Three Hours

Maximum: 36 Weightage

I. Answer *all* the questions briefly. Each question carries 1 weightage.

1. Mention the role of adsorbants in tissue culture.
2. With suitable example explain half strength medium.
3. What are surface sterilants? Give an example.
4. Comment on the role of hormones in phytomorphogenesis.
5. Differentiate between primary and secondary hardening.
6. Name any two major tissue culture ventures in India.
7. What are the advantages of semisolid medium in tissue culture?
8. List any two effective marketing strategies for tissue culture plants.
9. Comment on dedifferentiation.
10. Explain certification of tissue culture plants.
11. How could embryo culture be utilized for the improvement of crops?
12. What is the significance of VAM in tissue culture?
13. Write any two uses of anther culture.
14. Define clonal propagation.

(14 x 1 = 14 Weightage)

II. Answer any *seven* questions in a paragraph. Each question carries 2 weightage.

15. Tissue culture plants are expensive. Justify the statement.
16. What is androgenesis? Discuss the role of androgenesis in tissue culture.
17. What are the low cost alternatives in tissue culture?
18. Explain the major sources of contamination in a tissue culture lab. How can we rectify it?
19. What are the different bioreactors? Describe its role in tissue culture.
20. Describe the isolation and purification of protoplasts. Give its significance.
21. Explain synergistic hormone action.
22. Write notes on somatic embryogenesis. Mention its significance.
23. Explain the commercial tissue culturing of fruit crops.

24. Write notes on the plant propagating structures used in hardening of tissue culture plants.

(7 x 2 = 14 Weightage)

III. Answer any *two* questions in an essay. Each question carries 4 weightage.

25. Write an account on the history and latest advancements in tissue culture.

26. What is virus indexing? Mention its objectives. Describe the techniques used in virus indexing.

27. Write an essay on methods and significance of cell culture.

28. What is the role of culture media in tissue culture? Compare various culture media highlighting their advantages and limitations.

(2 x 4 = 8 Weightage)
