# M.Sc.DEGREE EXAMINATION, APRIL 2020 II Year IV Semester Plant Biotechnology

Time: 3 Hours Max.marks:75

### **Section A** $(10 \times 2 = 20)$ Marks

### Answer any **TEN** questions

- 1. Anti-foaming agents
- 2. Fermentation broth
- 3. Primary metabolites
- 4. Steroids
- 5. Microencapsulation
- 6. Gel filtration chromatography
- 7. Anaerobic respiration
- 8. Streptomycin
- 9. Yogurt
- 10. Malting
- 11. Autoclaving
- 12. Biosensor

## **Section B** $(5 \times 5 = 25)$ Marks

## Answer any **FIVE** questions

- 13. Draw a neatly labelled diagram of fermenter.
- 14. Write in brief about the secondary metabolites in plants.
- 15. What are the methods of enzyme immobilization?
- 16. Discuss the fermentation process involved in the production of glutamic acid.
- 17. Write a note on fermented foods and enlist its advantages.
- 18. How ethanol is commercially produced?
- 19. Production of recombinant interferons Discuss.

## **Section C** $(3 \times 10 = 30)$ Marks

### Answer any **THREE** questions

- 20. Write an essay on the types of bioreactors used in bioprocess technology.
- 21. Diabetes mellitus and production of recombinant insulin Discuss.
- 22. Write an essay on the production of microbial enzymes.
- 23. Elaborate on the production process and uses of citric acid.
- 24. Explain in detail about the steps involved in the production process of wine.

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