

S.No. 5092

16 SCCBT 8

(For candidates admitted from 2016–2017 onwards)

B.Sc. DEGREE EXAMINATION, APRIL 2022.

Part III — Biotechnology – Major

MICROBIAL BIOTECHNOLOGY

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20)

Answer ALL the questions.

1. Growth kinetics
2. Aeration system in bioreactor
3. Lag and log phase
4. Drying
5. Product recovery
6. Cell disruptions
7. Solvent extraction
8. Colourants in food industry

9. Bacteriocins and its applications

10. Starter culture

PART B — ($5 \times 5 = 25$)

Answer ALL the questions, choosing either (a) or (b)

11. (a) Discuss about strain improvement in product development.

Or

(b) How to select industrially important microorganism?

12. (a) Bioreactor designing.

Or

(b) Solid state fermentation technique.

13. (a) Write a note on various sterilization techniques.

Or

(b) Protein precipitation process.

14. (a) Write a note on cell disruption techniques.

Or

(b) Write about the additives used in food industries.

15. (a) Explain the fermentation and its role.

Or

(b) Sketch the DSP process.

PART C — ($3 \times 10 = 30$)

Answer any THREE questions.

16. Write in detail about the maintenance of industrially important microbes.

17. Discuss about the various factors controlling fermentation process.

18. Elaborate on Solid state and submerged types of fermentation.

19. Explain the effluent treatments.

20. Elaborate on fermented milk product.
