

NOVEMBER/DECEMBER 2019  
MAM33 — INDUSTRIAL BIOTECHNOLOGY

Time : Three hours

Maximum : 75 marks

SECTION A — (5 × 6 = 30 marks)

Answer ALL questions.

1. (a) What is screening? Describe the methods of primary screening.
- Or
- (b) Write short notes on protoplast fusion technique for improvement of strain.
2. (a) Define biosensors. Explain briefly their types.
- Or
- (b) Comment on antifoam agents used in fermentation medium.
3. (a) Explain the production of Riboflavin. Add a note on their importance.
- Or
- (b) Discuss briefly about beer production.

4. (a) Give an account on biotechnological potency of microalgae.
- Or
- (b) Describe the microalgae used as microcarrier materials.
5. (a) Explain the recent development in nanobiotechnology.
- Or
- (b) Write briefly about viral nanoparticles.

SECTION B — (3 × 15 = 45 marks)

Answer any THREE questions.

6. Discuss the application of mutation technique for strain improvement.
7. Explain growth kinetics.
8. Describe in detail the bacterial insecticides.
9. Discuss in detail the microalgae used as biofuel.
10. Write an essay on the history of nanobiotechnology.