

M. Sc. DEGREE EXAMINATION - NOVEMBER 2022
BIOTECHNOLOGY
FIRST SEMESTER

COURSE : ELECTIVE
PAPER : FOOD BIOTECHNOLOGY
TIME : 3 HOURS

MAX. MARKS: 100

SECTION – A

ANSWER ALL QUESTIONS: (10 x 2 = 20)

1. Mention four types of microbes employed in food industries and its related product.
2. Mention the factors that determine shelf life.
3. Give any two examples for chemical flavouring agents and its flavour.
4. Why monosodium glutamate is used in food industries.
5. State four methods of vegetable processing
6. Give reasons behind the effect of temperature in food preservation.
7. State the basic difference between drying and evaporation.
8. State the type of radiation used in food preservation and give two examples of the sources.
9. How do you pack food for long term storage?
10. Expand the abbreviation FSSAI and HACCP.

SECTION – B

ANSWER ALL THE QUESTIONS: (5x 8 = 40)

11. (a) Explain the role of extrinsic factors on microorganism in food microbiology.
(or)
(b) Write an essay on bacterial toxins.
12. (a) Give a note on the technology for retention of natural colours on food stuffs.
(or)
(b) Write a note on vitamin and mineral retention in food industry.
13. (a) Write an essay on milling and processing of cereals.
(or)
(b) Explain the processing and preservation stages involved in vegetable preservation.
14. (a) Elaborate on the types of moisture control techniques used in food industry.
(or)
(b) Explain the types of freezing technique used in food preservation.
15. (a) Write an essay on biodegradable plastics in food industries.
(or)
(b) Elaborate on the packaging function and its requirement in ensuring food safety.

SECTION – C

ANSWER ANY TWO QUESTIONS:

(2 X 20 = 40)

16. Discuss the role of chemical preservatives in food industry.
17. Give an account on membrane technology in food processing.
18. Elaborate about high temperature and irradiation technique adopted in food preservation industries.
19. Explain the role of five various statutory bodies in formulating and implementing food safety standards.
