Reg. No. ..... **THIRD SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2019** (Regular/Supplementary/Improvement) (CUCBCSS - UG) **CC17U FTL3 B05 - TECHNOLOGY OF FOOD PRESERVATION** (Food Technology - Core Course) (2017 Admission onwards) Time: Three Hours Maximum: 80 Marks **PART-A** Answer *all* questions. Each question carries 1 mark. 1. Which one is considered the oldest food preservation method? a) Freezing c) Nanotechnology d) None of these b) Drying 2. The temperature to be maintained for blanching. a) 110-120°C b) 85-100°C c) 115-170°C d) None of these 3. Market survey is administered by. a) Questionnaire c) Idea Generation b) Commercialization d) None of these 4. Bread staling occurs at. c) 0-4°c a) 7-8°c b) 1-5°c d) None of these 5. Which is the enzyme responsible for the discoloration of fruits and vegetables? c) Polyphenoloxidase a) Papain b) Chymosin d) None of these 6. What type of gamma rays are used to irradiate foods? a) Cobalt b) Nickel c) Argon d) None of these 7. Which one of the following is not a preservative? a) Sodium benzoate c) Propionic acid b) Calcium carbide d) None of these 8. Bacteria used in the production of vinegar? a) *Clostridium botulinum* c) Saccharomyces cerevisiae b) Acetobacter aceti d) None of these 9. Expand GRAS c) Generally recognized as safe a) Generally reserved as safe b) Generally required as safe d) None of these

(Pages: 2)

Name: .....

18U371

10. Example for non-ionizing radiation?

a) Microwave b) Gamma c) Light

d) None of these

(10 x 1=10 Marks)

## PART-B

Answer any *five* questions. Each question carries 2 marks.

11. Define ultrahigh temperature sterilization? Briefly explain its principle and application.

- 12. Write a note on freeze drying.
- 13. What are the advantages of slow freezing over quick freezing?
- 14. Define Dose and Dosimetry.
- 15. Differentiate acetic and lactic fermentation.
- 16. Write a note on ultrasonics.
- 17. What are food preservatives? Cite an example.

(5 x 2=10 Marks)

## PART-C

Answer any *six* questions. Each question carries 5 marks.

- 18. Explain the principles and application of blanching.
- 19. What is cryogenic freezing? Explain the working of cryogenic freezer.
- 20. Define protein denaturation. How it affects the quality of frozen foods?
- 21. What is aseptic processing? How it is useful in food industry?
- 22. Differentiate between ohmic heating and microwave heating.
- 23. Briefly explain the scope of irradiation in food processing.
- 24. What is chilling injury? How it affect food quality?
- 25. What is sulphuring? How it is related to drying?

## (6 x 5=30 Marks)

## PART-D

Answer any *two* questions. Each question carries 15 marks.

- 26. With the help of a neat diagram explain the types of freezers used in the preservation of foods. Also mention the principles of freezing.
- 27. Explain the steps in new product development. How do we ascertain consumer needs before developing food products?
- 28. Explain in detail the recent trends in food preservation.
- 29. Explain in detail the chemical preservatives used in food processing. Also explain their mode of action.

(2 x 15=30 Marks)

\*\*\*\*\*\*