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Anekant Education Society's
Tuljaram Chaturchand College, Baramati
B.Voc. Food Processing and Post-Harvest Technology
Semester Examination, , October 2019-20
Semester I Paper FP - 1, Principles of Food Processing and Preservation

Marks: 50

Q. 1 A. Fill in the blanks and rewrite the following.

- 1) _____ is father of canning.
- 2) Salt at a concentration of _____% is sufficient to preserve most of the foods.
- 3) The process of complete killing of all viable microorganisms by application of heat is called as _____.
- 4) _____ is an antifungal antibiotic.
- 5) _____ means Keeping out microorganisms.
- 6) The foods which have moisture content of _____ are called as non- perishable foods.
- 7) The heat resistance of food is generally expressed in terms of _____.
- 8) _____ enzyme is responsible for enzymatic browning.
- 9) Optimum temperature for growth of most of micro-organisms is _____.
- 10) Reduction of number of micro-organisms to safe level is called as _____.
- 11) Bacteria in _____ phase of growth are more barosensitive than cells in the stationary, dormant or death phase.
- 12) The father of canning process is _____.
- 13) _____ is commonly used as stable source of sulphur dioxide.
- 14) Salt and sugar inhibits the growth of microorganisms by the phenomenon of _____.
- 15) Radurization refers to _____.
- 16) Most yeasts used industrially are in the genus _____.
- 17) In lye peeling method _____% caustic soda is use
- 18) Solar dryer generate _____ and _____ which results in faster drying.
- 19) The two major types of non-enzymatic reaction are _____ and _____.
- 20) Generally the concentration of sugar should be above _____% at room temperature to act as preservative.
- 21) _____ is the process of dissolving sufficient amount of carbon dioxide in water/ Beverage.
- 22) Major function of blanching is _____
- 23) Low temperature is applied to retard _____ and _____ reactions in food.
- 24) _____ and _____ are used as chemical sterilants in low moisture foods and to sterilize aseptic packaging materials.
- 25) Asepsis means _____
- 26) TSS of Jelly is _____ °BX.
- 27) _____ is an antibiotic produced by streptococcus lactis, an organism commonly found in milk products.
- 28) Dehydration is based on the principle of removal of _____.
- 29) Slow freezing refers to the process whereby the desired temperature is within _____ to _____ hour.
- 30) The degree brix of squash should be in between _____.

B. Define the following terms.

- 1) Food Preservation
- 2) Canning
- 3) Dose of radiation
- 4) Thermal death time
- 5) D value
- 6) Exhausting
- 7) Cold preservation
- 8) Carbonation
- 9) Food additive
- 10) Irradiation
- 11) Preservation
- 12) Blanching
- 13) Braising
- 14) Ionizing radiations
- 15) Pulsed electric field
- 16) Thermal death time
- 17) Radappertization
- 18) Sterilization
- 19) Enzymes
- 20) Browning
- 21) F value
- 22) Antioxidant
- 23) Fermentation
- 24) Radurization
- 25) Drying
- 26) Antibiotic
- 27) Freezing
- 28) Caramelization
- 29) Oxidation
- 30) Cooking

Q. 2 Short notes

- 1) Pasteurization
- 2) Refrigeration
- 3) Canning
- 4) Antibiotics
- 5) Drum dryer
- 6) Moulds
- 7) Functions of food
- 8) Spray dryer
- 9) Ohmic heating
- 10) Principles of food preservation
- 11) Pasteurization
- 12) Natural preservatives
- 13) Modes of heat transfer

- 14) Microbial spoilage
- 15) Effect of Sterilization on food
- 16) Cooking methods
- 17) Non enzymatic browning
- 18) Preservation by sulphur dioxide
- 19) Functions and methods of blanching
- 20) Cabinet dryer

Q. 3 Long notes

- 1) Define blanching and give its mechanism and purpose.
- 2) Define dehydration and write a note on tray dryer
- 3) Give general principles of food preservation and explain detail.
- 4) Define pasteurization and explain its types in detail.
- 5) Explain in detail preservation by Natural preservatives.
- 6) Define dielectric heating and comment on it
- 7) Functions of food
- 8) Write a note on enzymatic spoilage of food
- 9) Write a note on objectives of cooking
- 10) Write a note on Solar drying

Q. 4 Answer in detail

1. Define Irradiation and explain in detail its mechanism of action and radiation process with its advantages and disadvantages.
2. Explain in detail preservation by chemical preservatives.
3. Define Preservative. Give difference between class I and class II preservatives and explain in detail class I preservatives.
4. Explain in detail different methods of preservation by low temperature.
5. Define drying and explain in detail methods and advantages of each drying method.
6. Define canning and explain in detail process of canning.
7. Write in detail effect of high temperature on food.
8. Define food spoilage. Explain in detail Effect of characteristics of food and storage conditions on spoilage of food.
9. Define Cooking and Explain in detail methods of cooking.
10. Enlist and explain non thermal technologies in food preservation.