

6Th Semester B Tech Food Technology

Food Technology IV (Principles of Food Preservation) Question Bank

- 1) The following are the intrinsic factors that influence the shelf life of the food
 - A. Storage temperature of the food
 - B. Packaging method
 - C. Acidity of the food
 - D. Applied thermal process

- 2) The following is the extrinsic factor that influence the shelf life of the food
 - A. Food structure
 - B. Food formulation
 - C. Storage condition
 - D. Redox potential within the food

- 3) Which of the following is not a cooking method?
 - A. Baking
 - B. Frying
 - C. Roasting
 - D. Blanching

- 4) Which separation process is mainly utilized for cream separation in dairy industry?
 - A. Centrifugal settling and sedimentation
 - B. Sedimentation
 - C. Pressure filtration
 - D. Gravity separation

- 5) The Smallest and simplest microorganism is
 - A. Bacteria
 - B. Virus
 - C. Yeast
 - D. Mold

- 6) The aim of commercial preservation is
 - A. To prevent undesirable changes in food
 - B. To control the chemical, physical changes
 - C. Control the growth of microorganisms
 - D. All of the above

- 7) For preparation of snacks _____ technique is used.
 - A. Extrusion
 - B. Pasting
 - C. Slicing
 - D. Molding

8)_____ is the processes used in manufacturing of beer to develop flavour.

- A. Ripening
- B. Smoking
- C. Aging
- D. None of the above

9) Coring of apple is an example of separation of inedible portion from edible portion of fruit

- A. True
- B. False

10) In Potato processing industry to avoid discolouration of potato the technique used is called as

- A. Baking
- B. Distillation
- C. Brining
- D. None of the above

11) The Mild heat treatment of foods that destroys pathogens and extends shelflife is called_____

- A. Canning
- B. Sterilization
- C. Pasteurization
- D. Blanching

12) Which of the following thermal process is used as pre-treatment prior to freezing, canning and drying

- A. Blanching
- B. Canning
- C. Pasteurization
- D. Sterilization

13) Heat Sterilization is generally suitable for

- A. High acid food
- B. Low acid food
- C. High fat food
- D. High protein food

14) Reciprocal of -ve slope of survivor is termed as_____

- A. $1/z$ value
- B. $1/D$ value
- C. z value
- D. D value

15) The D-value of a spoilage microorganism at 121 deg C is 2 min. If initial no of micro organism are 1000 spores per container. What will be the final no of micro organisms per container after 4 min of heating at same temperature?

- A. 100
- B. 10
- C. 50
- D. 1

16) Thermal processing means any sort of food processing that involve heating through_____

- A. Hot water or steam
- B. Hot air
- C. Heated oil
- D. All of the above

17) Following is not the method which involve hot air for processing of raw material

- A. Dehydration
- B. Evaporation
- C. Baking
- D. Roasting

18) The temperature of the body at any given point changes with time and affecting on rate of heat transfer then it is called as

- A. Unsteady state heat transfer
- B. Steady state heat transfer
- C. Linear state heat transfer
- D. None of the above

19) Multiple effect evaporator is used to

- A. Reduce the capital cost
- B. Increased the steam economy
- C. Improve the heat transfer rate
- D. Increased capacity

20) Steam economy of a multiple effect evaporator

- A. kg of steam used /hr
- B. kg of steam consumed in all effects for each kg of steam fed
- C. kg of water vaporized from all effect for each kg of steam fed to first effect
- D. kg of water vapourized from last effect for each of steam fed to first effect

21) Scraped surface evaporators are used for

- A. Low viscous products
- B. Products that tend to crystallize on the heating surface
- C. Products that tend to foam or foul on heat exchange surface
- D. None of the above

22) What is the percentage of initial water to be removed to concentrate fruit juice from 20% to 40 %?

- A. 20%

- B. 50%
- C. 30%
- D. 62.5%

23) In a heat exchanger, the fluids will get mixed during heat transfer

- A. Yes
- B. No
- C. Both
- D. Partly

24) In shell and tube heat exchanger, the viscous liquid is generally passed from

- A. Tube side
- B. Shell side
- C. Tube as well as shell side
- D. None of the above

25) For the same length of heat exchanger, inlet temperature and flow rate, log mean temperature difference in the case of counter flow, compared to parallel flow will be

- A. More
- B. Same
- C. Less
- D. None of the above

26) The fouling factor is used

- A. In heat exchanger design as a safety factor
- B. when a liquid exchanges heat with a gas
- C. in case of Newtonian fluids
- D. None of the above

27) The requirement of transfer of large heat is usually met by

- A. Increasing the length of tube
- B. Decreasing the diameter of the tube
- C. Increasing number of tubes
- D. Having multiple tube or shell passes

28) Type of moisture removed during constant rate period of drying technique is

- A. Bound moisture
- B. Free moisture
- C. Critical moisture
- D. EMC

29) Osmotic dehydration is

- A. Immersion of produce in a dilute solution
- B. Immersion of produce in a hypertonic solution
- C. Removal of moisture by applying vacuum
- D. Removal of moisture by sublimation

30) Time required for thawing is _____ than the freezing time.

- A. More

- B. Less
- C. Equal
- D. None of the above

31) Which freezing system is an example of Individual quick freezing (IQF)?

- A. Air blast freezer
- B. Fluidized bed freezing
- C. Both of the above
- D. None of the above

32) The process in which half moisture of fruits and vegetable is removed by dehydration followed by freezing known as

- A. Dehydro – freezing
- B. Dehydration
- C. Drying
- D. Freezing

33) Which of the following factors affect the freezing time of food?

- A. The temperature between the food and the freezing medium
- B. Thermal conductivity of food
- C. Distance that the heat must travel through the food
- D. All of the above

34) Which one is an incorrect assumption for freezing time calculation by Planck's equation?

- A. Heat transfer is one directional
- B. Properties of frozen food material is uniform for wide temperature range
- C. Initial temperature of food equal to its surrounding temperature
- D. Food material is made of pure water

35) The freezer burn is a characteristic, which takes place in

- A. Unpackaged food in plate freezers
- B. Packaged in plate freezers
- C. Unpackaged food in air blast freezers
- D. Packaged food in air blast freezers

36) Which of the following freezers require the raw product in form of slurry?

- A. Chest freezer
- B. Fluidized bed freezer
- C. Scraped surface freezer
- D. Air blast freezer

37) With larger freezing rate, homogeneous large crystals are developed.

- A. True
- B. False

38) The alternative name for freeze drying is

- A. Lyophilisation
- B. Cold pasteurization
- C. Irradiation

D. Cold storage

39) The term for deposition of solids on the membrane, irreversible during processing is?

- A. Feed
- B. Flux
- C. Membrane fouling
- D. Permeate

40) The ratio of the initial volume of feed to the final volume of the concentrate is called as

- A. Permeate
- B. Retentate
- C. Concentration factor
- D. Diafiltration

41) _____ is a modification of ultra filtration in which water is added to the feed as filtration proceeds in order to wash out feed components which will pass through the membranes.

- A. Permeate
- B. Retentate
- C. Concentration factor
- D. Diafiltration

42) What is the Processing temperature in membrane filtration applications?

- A. 15⁰C
- B. 25⁰C
- C. 65⁰C
- D. 50⁰C

43) The separation limit for a membrane is determined by the lowest _____ that can be separated

- A. Fractional weight
- B. Molecular weight
- C. Ion weight
- D. Mass

44) Which of the following qualities do not determine the percent recovery in membrane treatment?

- A. Membrane filtration level
- B. Characteristic of membrane itself
- C. Quality of feed water
- D. Nutritional content of feed

45) The flow rate through the membrane filter itself expressed as a gallon per square foot per day is called as

- A. Permeate
- B. Head loss
- C. Flux
- D. Overhead

46) Which of the following packaging material is used to pack carbonated soft drinks?

- A. Paper
- B. PET bottle
- C. Laminate
- D. Biodegradable packaging

47) Which of the following is used for primary packaging of butter?

- A. Oiled paper
- B. Kraft paper
- C. Wax paper
- D. Butter paper

48) The packaging material used to absorb shocks and to protect food product while handling and transportation is called as

- A. Primary packaging
- B. Secondary packaging
- C. Cushioning
- D. Corboard packaging

49) Tetrapak has _____ layers.

- A. Four
- B. Five
- C. Six
- D. Seven

ANSWER: C

50) Which is the thinnest layer in Tetrapak?

- A. Polyethylene
- B. Paper
- C. Nylon
- D. Aluminium

ANSWER: D