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Paper Code: VOC-3-PFV

A (SVSU:2024-25/R)

Enrollment No.

Bachelors of Science

III Semester / 2nd Year Examination

Subject Code:VOC-3-PFV

Subject Name : PRESERVATION OF FRUITS & VEGETABLE

[Max. Marks : 75]

[Time : 03:00 Hours]

Note : 1. Attempt all the questions as per given instructions.

[15×1=15]

1. Multiple Choice Questions (MCQs)

- I Food preservation involves methods to delay spoilage caused by all EXCEPT:
(a) Microorganisms (b) Enzymes (c) Freezing (d) Oxidation
- II Which preservation method combines multiple "hurdles" to inhibit microbial growth in food?
a) Cryogenic freezing b) Hurdle Technology
c) Pulsed Electric Field (PEF) d) Dehydration
- III In ancient times, which method was commonly used for drying food?
a) Sun drying b) Freeze drying
c) Spray drying d) Vacuum drying
- IV Who is credited with developing the quick-freezing process in the 1920s, revolutionizing food freezing?
a) Frederic Tudor b) Carl von Linde
c) Clarence Birdseye d) Louis Pasteur
- V Which of the following preservation methods involves keeping food between -1 and 4°C for short-term commercial storage?
a) Freezing b) Canning c) Refrigeration d) Chilling
- VI The process of pasteurization was developed by:
a) Nicolas Appert b) Louis Pasteur
c) Joseph Lister d) Alexander Fleming
- VII Which of these principles focuses on preventing the reintroduction of contaminants after preservation?
a) Avoiding Recontamination b) Inactivation
c) Inhibition d) Acidification
- VIII Which preservation method involves sealing food in an airtight container I and heating it?
a) Freezing b) Canning c) Pickling d) Smoking
- IX Which preservation method is typically used for ready-to-eat meals, seafood, and juices due to its ability to retain fresh-like quality?
a) Refrigeration b) High Hydrostatic Pressure (HHP)
c) Dehydration d) Fermentation

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- X Which ancient civilization developed ice storage systems called "yakhchals" around 400 BCE?
 a) Romans b) Persians c) Chinese d) Egyptians
- XI Nicolas Appert is best known for:
 a) Inventing canning b) Developing pasteurization
 c) Pioneering freeze drying d) Discovering penicillin
- XII Which freezing method involves using extremely low temperatures by liquid nitrogen or carbon dioxide?
 a) Blast freezing b) Tunnel freezing
 c) Vacuum freezing d) Cryogenic freezing
- XIII The shelf life of canned food can be extended due to:
 a) Freezing temperature b) Absence of oxygen
 c) Increased moisture d) Minimal nutrients
- XIV What is the main purpose of food preservation?
 (a) Enhance flavor and texture (b) Increase nutritional value
 (c) Prevent spoilage and extend usability (d) Reduce cooking time
- XV Which preservation technique is commonly used for fruit juices, milk, and liquid eggs?
 a) Hurdle Technology b) Cryogenic freezing
 c) Pulsed Electric Field (PEF) d) High Hydrostatic Pressure (HHP)

[3×10=30]

2. Answer in long (any three)

- I As a student of Preservation of Fruits and Vegetable, how will you elaborate on principles of Food preservation? Also highlight the various techniques used under each principle.
- II Give a detailed view of different types of dryers and drying techniques used in food preservation.
- III Provide a in depth overview of Freezing, its advantages, disadvantages and various freezing techniques used for preservation of foods.
- IV Define different methods used as pasteurization, boiling and canning in food preservation.
- V. Write a brief note:
 a. Hurdle Technology b. High Hydrostatic Pressure technique.

[5×6=30]

3. Answer in short (any five)

- I List the advantages and disadvantages of Pulsed Electric Field technique.
- II Enlist different treatment given prior to drying.
- III Give a brief note on Importance of Food preservation.
- IV How was low pressure food preservation done in Ancient times?
- V Mention the applications of HHP and PEF
- VI Differentiate between Refrigeration and Chilling.
- VII Analyze effect of temperature on food quality
- VIII write in short history of food preservation