

B.Sc. DEGREE EXAMINATION, APRIL 2022
BRANCH V(a) – PLANT BIOLOGY AND PLANT BIOTECHNOLOGY
SIXTH SEMESTER

COURSE : ELECTIVE
PAPER : FRUIT PRESERVATION AND NUTRITION
TIME : 3 HOURS

MAX. MARKS: 100

SECTION - A

A. ANSWER THE FOLLOWING

18 Marks

I. Choose the correct answer

(1x5=5)

1. Microorganism involved in the fermentation of vinegar is
(a) *Lactobacillus* (b) *Acetobacter* (c) *Pseudomonas* (d) *Bacillus*
2. Loss of fluids from jam and jellies refers to
(a) Imbibition (b) Syneresis (c) Diuresis (d) Filtration
3. Soluble solid content in fruits is read through
(a) P^H meter (b) Densitometer (c) Colorimeter (d) Refractometer
4. Peeling of fruits by dipping them in caustic soda refers to
(a) Flame peeling (b) Abrasive peeling (c) Lye peeling (d) Mechanical peeling
5. In malolactic fermentation malic acid is converted into
(a) Acetic acid (b) Lactic acid (c) Ethanol (d) Citric acid

II. Fill in the blanks:

(1x5=5)

6. Slow freezing method is also called as _____.
7. An antioxidant present in tomatoes is called as _____.
8. The study of wine making is called as _____.
9. The International symbol for Irradiated food is _____.
10. Father of canning is _____.

III. State True or False

(1x3=3)

11. Sulphur dioxide treatment is applied to dry fruits.
12. Blanching inactivates enzymes.
13. It is not advisable to use benzoic acid in grape crush.

IV. Match the following

(1x5=5)

14. Vitamin B₁ - Ascorbic acid
15. Sterilization - Vinegar
16. Vitamin C - Pyridoxine
17. Vitamin B₆ - Autoclave
18. Sour wine - Thiamine

V. ANSWER ANY SIX OF THE FOLLOWING QUESTIONS IN 50 WORDS EACH:**(6x3=18)**

19. Thermal Death Time.
20. Uses of blanching.
21. Differentiate class I and Class II preservatives.
22. Tunnel drying.
23. Importance of antioxidants.
24. Differentiate fruit squash and syrup.
25. Any 3 health benefits of Cider.
26. Describe Fermentation process.
27. Pectin

SECTION - B**ANSWER ANY FOUR OF THE FOLLOWING QUESTIONS IN ABOUT 200 WORDS EACH. DRAW DIAGRAMS WHEREVER NECESSARY.****(4x6=24)**

28. Comment on the importance of radiation in food preservation.
29. Draw the flowchart of red wine preparation.
30. Tabulate the classification of fruits.
31. What are the functions and sources of Vitamin B complexes.
32. Discuss the end point tests for jam and jelly.
33. Write short notes on pigments in fruits.

SECTION - C**ANSWER ANY TWO OF THE FOLLOWING QUESTIONS IN ABOUT 1000 WORDS EACH. DRAW DIAGRAMS WHEREVER NECESSARY.****(2x20=40)**

34. Discuss the role of high temperature and chemical preservatives in the preservation of food.
35. Give a detailed account on carotenoids, flavonoids and antioxidants present in Fruits.
36. Describe in detail the steps involved in the process of canning.
37. Explain the preparation of the following fruit products:
 - (a) Mixed Fruit Jam
 - (b) Grape Crush
 - (c) Mixed vegetable pickle
 - (d) Lime syrup
