B.Sc. FOOD SCIENCE & TECHNOLOGY
SECOND SEMESTER
TECHNOLOGY OF FRUITS AND VEGETABLE PROCESSING
BFST-201
[USE OMR SHEET FOR OBJECTIVE PART]

SET
A

Duration: 3 hrs.   Full Marks: 70

(Objective)

Time: 30 mins.   Marks: 20

Choose the correct answer from the following: *1×20=20*

1. At which pH fruits and vegetables are divided into acidic and non-acidic for thermal processing?
   a. 6.5   b. 4.5
   c. 5.5   d. 7.5

2. Monosodium glutamate (MSG) is a.................
   a. Flavor enhancer   b. Antioxidant
   c. Bleaching agent   d. Stabilizer

3. Sulphur dioxide cannot be used to preserve naturally colored juices because of it's.........
   a. Characteristic flavor   b. Characteristic aroma
   c. Liberation of CO_2 d. Bleaching action

4. BHA is a...........
   a. Antioxidant   b. Flavor enhancer
   c. Pesticide   d. Permitted color

5. A substance intentionally added that preserves flavor and improves taste is called.........
   a. Food adulterant   b. Food material
   c. Food additive   d. Food contaminant

6. Statement 1: Stabilizers and emulsifiers are certain examples of food additives.
   Statement 2: Antioxidant is a class of food additives.
   a. True, False   b. True, True
   c. False, False   d. False, True

7. Fruit juice beverages are generally bottled with carbon dioxide content varying from.............
   a. 1-5 g/L   b. 6-8 g/L
   c. 2.0 g/L   d. 2.5 g/L

8. How much percentage of sugar is necessary for the preservation of fruits?
   a. 45   b. 40
   c. 58   d. 66

9. The enzyme which is responsible for browning of fruit and vegetables is...............
   a. Lipo-oxidase   b. Polyphenol-oxidase
   c. Amylase   d. Protease

10. Frozen storage is generally operated at temperature of.............
    a. -0°C
    b. -18°C
    c. -50°C
    d. -60°C

11. Which of the following is the process of converting sugar into alcohol?
    a. Oxidation
    b. Bleaching
    c. Fermentation
    d. Pasteurization

12. How much percentage of fruit pulp should be in jam?
    a. 15
    b. 25
    c. 30
    d. 45

13. What is the amount of chlorine is used in washing the fruits?
    a. 100 ppm
    b. 200 ppm
    c. 300 ppm
    d. 400 ppm

14. Jam, jelly and marmalade is based on concentrating fruits to nearly.......%solids.
    a. 20
    b. 30
    c. 70
    d. 100

15. Which of the following acid will have higher bacteriostatic effect at a given pH?
    a. Malic acid
    b. Citric acid
    c. Tartaric acid
    d. Acetic acid

16. Bacterial growth is generally impossible when water activity reduces below.............
    a. 0.60
    b. 0.70
    c. 0.80
    d. 0.90

17. In dehydration of vegetables, the temperature is increased up to..........
    a. 60-66°C
    b. 50-56°C
    c. 66-71°C
    d. 75-81°C

18. Which state gives the highest productivity of coconuts?
    a. Kerala
    b. Andhra Pradesh
    c. Karnataka
    d. Meghalaya

19. Pomegranate is............... fruit.
    a. Non-climacteric
    b. Climacteric
    c. Both a & b
    d. None of the above

20. What is the ratio of sugar to fruit when making jam?
    a. 1:2
    b. 1:1
    c. 2:1
    d. 2:3

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(Descriptive)

[Answer question no.1 & any four (4) from the rest]

1. Give the flow-sheet for manufacturing of tomato ketchup & potato chips.   5+5=10

2. What are unfermented fruits beverages? Give flow-sheet for processing of pineapple juice and squash.   2+8=10

3. Enumerate briefly the different steps followed usually in the production of pineapple jam. Describe the role of different ingredients used in the manufacture of jelly.   5+5=10

4. Explain in detail the different types of dryers utilized for drying/dehydration of fruits and vegetables.   10

5. What is the difference between sorting and grading in postharvest handling? Briefly explain climacteric and non-climacteric fruits. Give two examples.   5+5=10

6. a) Define: 5+5=10
   (i) Food adulteration   (ii) Freeze drying   (iii) Blanching
   (iv) Thawing   (v) Thermal death time of bacteria
   b) How artificial ripening helps the marketability of mature harvested fruits?

7. Write short notes on *any two* from the following: 5+5=10
   a) Hot pack or Hot fill
   b) Air blast freezing
   c) Brominated vegetable oils

8. Describe about different constraints faced by rural families during processing of fruits and vegetables.   10

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