

**B.Sc. FOOD SCIENCE & TECHNOLOGY**  
**SECOND SEMESTER**  
**TECHNOLOGY OF FRUITS & VEGETABLES PROCESSING**  
**BFST - 202**

( Use Separate Answer Scripts for Objective & Descriptive )

Duration: 3 hrs.

Full Marks: 70

( PART-A: Objective )

Time: 20 min.

Marks: 20

*Choose the correct answer from the following:*

**1X20=20**

1. Which of the following is non-climacteric fruit?
  - a. Grapes
  - b. Apple
  - c. Banana
  - d. Mango
2. Which of the following is not a major factor for commercial ripening.
  - a. Temperature Control
  - b. Water Availability
  - c. RH Control
  - d. Ethylene Gas
3. Recommended conditions for ripening of climacteric fruits are
  - a. 20 - 21 degree Celsius temperature
  - b. 100-150 ppm C<sub>2</sub>H<sub>4</sub>
  - c. 90-95% RH
  - d. All of the above
4. Which of the following is not considered a typical maturity index for harvesting fruits & vegetables.
  - a. Skin Colour
  - b. Size
  - c. Climatic conditions
  - d. Aroma
5. Fruit ripening is a combination of physiological, biochemical, and molecular processes leading to,
  - a. Changes in pigments
  - b. Changes in sugar content
  - c. Changes in acid content
  - d. All of the above
6. Pectic substances are a group of polysaccharides in plant cell walls and some mucilages, which are endowed with multifunctional properties such as
  - a. the control of cell wall integrity and porosity
  - b. the protection of plants against phytopathogens
  - c. Both A & B
  - d. None of the above
7. Yellow coloured fruits and vegetables are rich source of
  - a. Vitamin A
  - b. Vitamin B
  - c. Vitamin C
  - d. Vitamin D
8. Rich source of protein is
  - a. Banana
  - b. Almond
  - c. Mango
  - d. Cashew nut
9. Papaya is rich source of ....
  - a. vitamin E
  - b. vitamin B
  - c. vitamin A
  - d. vitamin C

10. MAP of fruits and vegetables prevent the building up of the following
- Sugar
  - Protein
  - CO<sub>2</sub> & Ethylene
  - None
11. Fruit and vegetable are rich source in dietary fibers which protect human body from
- Colon cancer
  - Protein deficiency
  - Fat deficiency
  - Sugar deficiency
12. The equipment used for removing moisture from fruit and vegetable by evaporation
- Evaporator
  - Transpirator
  - Autoclave
  - Dehydrator
13. RTS contains the acid content of about
- 1.5%
  - 0.3 %
  - 2.5%
  - 1.0%
14. Fruits not suitable for jam making is
- Banana
  - Lemon
  - Aonla
  - Mango
15. Blanching in vegetables is done for
- Microorganism removal
  - Inactivate enzyme
  - Softening the vegetables
  - all
16. Which vegetable has high calorific value?
- Fenugreek
  - Potato
  - Tomato
  - Amaranths
17. Red colour in tomato is due to pigment
- Chlorophyll
  - Lycopene
  - Bixin
  - Anthocyanin
18. India incurs post-harvest fruits and vegetable losses worth
- Over Rs 5 lakh crore each year
  - Over Rs 2 lakh crore each year
  - Over Rs 3 lakh crore each year
  - Over Rs 7 lakh crore each year
19. Heating of fruits & Vegetables above 100 °C is.....
- Pasteurization
  - Sterilization
  - Cry Preservation
  - Thermization
20. Preservative used for preparation of tomato ketchup is
- Citric acid
  - KMS
  - Sodium benzoate
  - Sodium bisulphate

**( PART-B : Descriptive )**

Time : 2 hrs. 40 min.

Marks : 50

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

1. Define Jam. Draw the flow sheet for processing of jam and Jelly. 2+8=10
  
2. Give an detailed account on the following: 5+5=10
  - a. Utilization of fruits and vegetable waste.
  - b. Fruit Cheese.
  
3. Write an essay on harvesting and handling methods of fruits & vegetables. 10
  
4. Discuss about any three postharvest treatments of fruits and vegetables. 10
  
5.
  - a. Discuss about the biochemical changes during ripening. 5+5=10
  - b. Difference between climacteric and non climacteric fruits with example.
  
6. What are the factors affecting storage? Write the notes on MA and CA storages. 5+5=10
  
7. What are the important considerations in potato processing? Give flow sheet for processing of frozen potato chips and dehydrated diced potatoes. 4+6=10
  
8. Tomatoes can be processed into a number of products. How? 1+9=10

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