

MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY, NAGPUR  
SEMEISTER END THEORY EXAMINATION, *B. TECH. (D.T.) Degree Course 2017-18*

Semester : **VI (New Syllabus)**  
Course No. : **DT-610**  
Credits : **3+1=4**  
Day & Date : **Thursday, 14.06.2018**

Academic Year : 2017-2017  
Course Title : Food Technology- I  
Total Marks : 50  
Time : 11.00 to 13.00 Hrs.

**Note :**

- 1) All questions from **Section 'A'** are compulsory.
- 2) Solve **Any Five** questions from **Section 'B'**.
- 3) Draw neat and well labelled diagram(s) wherever necessary.

### SECTION - 'A'

- Q. 1 A) Write definition of the following in one line. (05)
- Hot pulping of tomatoes
  - Natural beverages
  - Partially fermented tea
  - Instant coffee
  - Plain chocolate
- B) Give one or two examples of. (05)
- Environmental factors affecting the postharvest quality of fruits and vegetables.
  - Post harvest preliminary processing operations in fruits and vegetables.
  - Equipments required for processing of fruit and vegetables.
  - Cultivars of tomatoes grown in India.
  - Citrus fruits.
- Q. 2 A) State True or false, If false, rewrite the statement after making necessary correction in underline word(s). (05)
- India is the second largest producer of fruits and vegetables in the world.
  - Fruits which are harvested at optimum maturity and undergo ripening after harvest are grouped under non-climacteric fruits.
  - Sulfur dioxide increases non-enzymatic type of browning.
  - The structural unit of most fruits and vegetables is parenchyma cell.
  - Minimum percentage of total soluble solids as per FSSAI in tomato juice, excluding salt, should be 5%.
- B) Choose the most appropriate answer from the options given below. (05)
- Minimum percentage of total soluble solids by weight as per FSSAI in fruit jam should be .....
    - 68
    - 70
    - 72
    - 78
  - Citrus fruits are excellent source of vitamin .....
    - A
    - C
    - D
    - K
  - As per FSSAI specifications minimum percentage of fruit juice in the unsweetened juice should be .....
    - 0
    - 85
    - 100
    - None of these

(P.T.O.)



- iv) Pigment responsible for red colour of tomatoes .....
- |                 |                  |
|-----------------|------------------|
| a) Anthocyanine | b) Chlorophyll   |
| c) Lycopene     | d) Beta-carotene |
- v) Conching of chocolate is carried out at .....
- |         |         |
|---------|---------|
| a) 40°C | b) 50°C |
| c) 60°C | d) 70°C |

**SECTION – 'B'**

- Q. 3 Discuss the status of food industry in India with production figures of food produce/products. What strategies should be followed by India to uplift the food industry in the near future? (06)
- Q. 4 With the help of neat flow diagram explain the manufacture of grape juice. (06)
- Q. 5 Give importance of sugar, acid and pectin in manufacture of fruit jam. Give suggestions to prevent the occurrence of "sugar crystallization" in fruit jams. (06)
- Q. 6 Write short note on the following.
- |                                      |      |
|--------------------------------------|------|
| a) Preservation of fruit juices.     | (02) |
| b) Peeling of fruits and vegetables. | (02) |
| c) Conching of chocolate mass.       | (02) |
- Q. 7 a) Enlist various methods to prevent enzymatic browning of fruits and vegetables. Discuss any one method in detail. (03)
- b) Enlist advantages of blanching operation in fruits and vegetable processing. (03)
- Q. 8 a) Enlist various applications of enzymes in fruit processing. (02)
- b) Withering of tea leaves. (02)
- c) Decaffeination of coffee. (02)
- Q. 9 a) What is difference between tomato sauce and tomato ketchup? (02)
- b) Explain the structure of coffee bean with neat diagram. (04)

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