

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086  
(For candidates admitted during the academic year 2008-09)

SUBJECT CODE: BT/ME/FN54

B. Sc. DEGREE EXAMINATION, NOVEMBER 2010  
BRANCH V (a) – PLANT BIOLOGY AND PLANT BIOTECHNOLOGY  
FIFTH SEMESTER

COURSE : MAJOR – ELECTIVES  
PAPER : FRUIT PRESERVATION AND NUTRITION  
TIME : 3 HOURS MAX.MARKS:100

SECTION – A

ANSWER ALL QUESTIONS

(18 marks)

CHOOSE THE CORRECT ANSWER:

1. ----- can survive after pasteurization  
a. *Lactobacillus* b. *Enterococcus* c. *Streptococcus* d. None of the above
2. ----- is used for making Cheese.  
a. bacteria b. mold c. yeast d. actinomycetes
3. In canning removal of ----- can be used to prevent the growth of aerobic microorganism  
a. CO<sub>2</sub> b. O<sub>2</sub> c. both of these d. none of these
4. ----- are the predominant choice for the standard jellies  
a. High methoxyl pectins b. low methoxyl pectins c. High & low methoxyl pectins  
d. none of these
5. The basic skeleton of flavonoids is-----  
a. (C<sub>6</sub>-C<sub>8</sub>)<sub>n</sub> b. C<sub>6</sub>-C<sub>3</sub>-C<sub>6</sub> c. (C<sub>6</sub>-C<sub>3</sub>-C<sub>6</sub>)<sub>n</sub> d. C<sub>6</sub>-C<sub>2</sub>-C<sub>6</sub>
6. ----- is the most frequently encountered fungi in fermented beverage and foods based on fruit  
a. *Saccharomyces* b. *Aspergillus* c. *Candida* d. *Saccharomyces* & *Candida*

FILL IN THE BLANKS:

7. Pasteurization is the term given to heat processes typically in the range of-----
8. In jelly manufacturing the fruit is boiled to extract the -----
9. One of the major difference in the sequence of operation between fruit and vegetable canning is the-----
10. ----- bacterial spores are the most radiation resistant
11. Main function of flavonoid in plants is-----
12. -----bacteria are used in the preparation of vinegar

STATE WHETHER TRUE OR FALSE:

13. Cans are cooled rapidly after heat processing to prevent spoilage by thermophiles.
14. Purine bases are sensitive to UV radiation.
15. The colour of tomato fruit is due to the presence of carotenoids.
16. Acetic acid is used for food preservation.
17. Yoghurt is a fermented food.
18. Psychrotrophs can grow in chilled foods.

**ANSWER ANY SIX QUESTIONS. EACH ANSWER NOT TO EXCEED 50 WORDS**

**( 6 x 3 = 18 )**

19. Drying.
20. Anthocyanin.
21. Carotenoids.
22. Fermented foods.
23. Pasteurisation.
24. Freeze drying.
25. Jelly.
26. UHT-milk

**SECTION – B**

**ANSWER ANY FOUR QUESTIONS. EACH ANSWER NOT TO EXCEED 200WORDS:**

**( 4 x 6 = 24 )**

27. How radiation is used in food preservation.
28. Explain the procedure for canning of apple.
29. Write the procedure for canning of beans.
30. Give an account on the chemical properties of flavonoids.
31. Write short notes on Cider.
32. How do you prepare orange jelly?

**SECTION – C**

**ANSWER ANY TWO QUESTIONS. EACH ANSWER NOT TO EXCEED 1000WORDS.  
DRAW DIAGRAMS WHEREVER NECESSARY**

**( 2 x 20 = 40 )**

33. What are the principles of fermentation and factors controlling fermentation?
34. How do you prepare apple jelly and briefly discuss the factors affecting jelly preparation.
35. Write an essay on physical and chemical properties of carotenoids & flavonoids.
36. Write an essay on chemical preservatives.

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