

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086
(For candidates admitted during the academic year 2011 – 12 & thereafter)

SUBJECT CODE: 11BT/ME/FN53

B. Sc. DEGREE EXAMINATION, NOVEMBER 2015
BRANCH V (a) – PLANT BIOLOGY AND PLANT BIOTECHNOLOGY
FIFTH SEMESTER

COURSE : MAJOR - ELECTIVE
PAPER : FRUIT PRESERVATION AND NUTRITION
TIME : 3 HOURS **MAX.MARKS:100**

SECTION – A

ANSWER ALL QUESTIONS **(18 marks)**
CHOOSE THE CORRECT ANSWER: **1x 5= 5**

1. ____ is an example of a concentrated food.
a) Skimmed milk b) canned soups c) sauces
2. ____ deficiency causes anaemia.
a) calcium b) iron c) zinc.
3. ____ method of canning takes only few seconds for sterilization.
a) blast b) instant vapour c) aseptic
4. ____ microorganism is known as bakers yeast.
a) L. acidophilus b) L. bififus c) S. cerevisiae.
5. A jam should have ____ % of invert sugar to avoid crystallization on storage.

FILL IN THE BLANKS: **1x 5 =5**

6. ____ microorganism is found in canned meats.
7. ____ food is rich in vitamin C.
8. Low acid foods are heated above ____ temperature under pressure for sterility.
9. ____ bacteria are acid producing and thrive in acidic pH.
10. ____ fruits are generally used to make marmalade.

STATE WHETHER TRUE OR FALSE: **1x 4 =4**

11. Enzymes are responsible for food deterioration.
12. Yeasts grow well in alkaline pH.
13. Mushroom is a good source of protein.
14. The pectin and acid content of marmalade should be lower than that for jellies.

MATCH THE FOLLOWING: **1 x 4 = 4**

- | | |
|-----------------|----------|
| 15. Protein | Soyabean |
| 16. Zinc | Tomato |
| 17. Pectin | Nuts |
| 18. Antioxidant | Guava. |

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

(6 x 3 = 18)

19. What is thermal death time?
20. List three functions of vitamin A?
21. What are the ill effects of excessive heat on foods?
22. Define fermentation.
23. What is "hot fill"?
24. What is marmalade?
25. List the Advantages of drying.
26. Mention the sources of Magnesium.
27. What is meant by 'head space'?

SECTION – B

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

DRAW DIAGRAMS WHEREVER NECESSARY.

(4 x 6 = 24)

28. What are the benefits of radiation as a method of preserving food?
29. Explain the function of calcium in the human body.
30. Briefly explain the steps in canning.
31. What are the factors that control the growth of microorganisms in fermentation?
32. What are the methods of freezing food?
33. How would you prepare vegetable pickle?

SECTION – C

ANSWER ANY TWO QUESTIONS. EACH ANSWER NOT TO EXCEED 1000 WORDS.

DRAW DIAGRAMS WHEREVER NECESSARY:

(2 x 20 = 40)

34. Explain the various chemical preservatives employed in the food industry.
35. a) What are the factors affecting the preparation of jelly. (10 marks)
b) Explain the preparation of guava jelly (10 marks)
36. Discuss the nutritional significance of Vitamin B1, B2, B6, and vitamin C.
37. Explain any two fermented beverages produced in the food industry.
