

17. (a) Explain briefly on Pesticide analysis in food products.

Or

- (b) Explain the functions, sources and deficiency diseases of Vitamins B₁, B₂, B₆ and B₁₂.
18. (a) Outline the preservation of food material by the following food additives.
- (i) Propionates
 - (ii) Sorbates
 - (iii) Nitrites and nitrates
 - (iv) Acetates.

Or

- (b) Discuss the microbiology of dried fruits.
19. (a) Discuss the classification of adulterants in detail.

Or

- (b) How are the following adulterants detected?
20. (a) List the principle food control operations available.

Or

- (b) Explain briefly about two sample t-test.

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M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2010.

Third Semester

Chemistry

Non Major Elective — FOOD ANALYSIS

(For those who joined in July 2008 and afterwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL the questions.

1. Give examples for pure and complex carbohydrates.
2. What are high calorie diets?
3. Write the rich sources of Vitamin A.
4. Write the Residual tolerance limit of Pyrethrum and Malathion.

5. Write the expansion for the following abbreviations regarding Pasteurization.

(a) LTLT process

(b) HT ST process.

6. Mention the chemicals that are used to preserve the following food items :

(a) Jams and jellies

(b) Breads.

7. How are the Food adulterants classified?

8. Give the expansion for the following central food laboratories.

(a) CFTRI

(b) ITRC.

9. Define the term microbiological standard.

10. What is ranking test?

PART B — (5 × 5 = 25 marks)

Answer ALL the questions, choosing either (a) or (b).

11. (a) Discuss the role of Vitamin C in jams.

Or

(b) Suggest an experimental method to determine the calorific value of food.

12. (a) Explain the principle and essential components of a Gas chromatograph.

Or

(b) Explain the functions, sources and deficiency diseases of Vitamin C.

13. (a) Discuss briefly about 'cold storage'.

Or

(b) Define texture. How are the textural properties classified?

14. (a) Explain "Ag mark" and I.S.I. standards for ensuring quality of products.

Or

(b) Discuss the important features of PFA Act, 1954.

15. (a) Explain why the grape wines are analyzed for sensory qualities.

Or

(b) What are the stated chief purposes of microbiological criteria for foods?

PART C — (5 × 8 = 40 marks)

Answer ALL the questions, choosing either (a) or (b).

16. (a) Explain the food exchange lists suitable for India with suitable examples.

Or

(b) Suggest the method for the determination of 'ash content'.