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B.E. / B.Tech. (Full Time) ARREAR EXAMINATIONS, NOV / DEC 2011

AGRICULTURAL AND IRRIGATION ENGINEERING BRANCH

FOURTH SEMESTER – (REGULATIONS 2008)

AI 9253 FOOD SCIENCE AND NUTRITION TECHNOLOGY

Time : 3 hrs

Max Marks : 100

Answer ALL Questions

Part – A (10 x 2 = 20 Marks)

- 1) What are convenience foods? Give examples.
- 2) What are the various types of thermometers used in food industry?
- 3) Give scientific reasons for the following:-
 - a. It is good to have light snacks with alcohol.
 - b. The sugar in jams, jellies do not crystallize during storage.
- 4) Differentiate physiological and potential energy values in food.
- 5) What are the types of rancidity?
- 6) Differentiate Essential and Non-essential amino acids.
- 7) List out some of the extruded products with their brand names.
- 8) What is the difference between a juice and a squash?
- 9) What is a tetrapack? Give examples.
- 10) How are preservatives classified?

Part – B (5 x 16 = 80 Marks)

- 11) a) Explain in detail how the total energy requirement of the body is calculated. (8)
- b) What are the characteristics of carbohydrates? How are the carbohydrates classified? Give examples. (8)
- 12) a) i) Write short notes on pH and its application to food science. (5)
- ii) Describe various methods to find out adulteration in milk. (4)
- iii) Define food science and enumerate its objectives and applications. (7)

(or)

b) i) Explain the Essential Commodities Act and the orders covered. (10)

ii) Discuss the relation of nutrition to good health. (6)

13) a) i) Tabulate the Recommended Dietary Allowance of important minerals for children, males and females. (10)

ii) Write short notes on Child foods. (6)

(or)

b) i) How are minerals classified? List the functions of minerals. (10)

ii) Write short notes on the importance of Calcium to our body. (6)

14) a) i) What are the types of candies? Explain the method of preparation. (8)

ii) What are the types of cakes and explain how they are prepared? (8)

(or)

b) i) What are the steps involved in the development of extruded products? (8)

ii) Write short notes on baking. Explain the method of preparing bread. (8)

15) a) i) Discuss the rules and regulations for setting up a fruit processing industry. (8)

ii) What are the types of packaging? Discuss the various materials used for the same and their properties. (8)

(or)

b) i) Why is fermentation of food necessary? Explain the advantages of the same. (8)

ii) State the reasons for taking beverages. Write short notes on any two ready to serve beverages. (8)