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B.E. / B.Tech. DEGREE (Full Time) Arrear EXAMINATIONS, NOV / DEC 2012

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 superfoods? Give examples.
- 2) List the various types of thermometers used in food industry.
- 3) Differentiate physiological and potential energy values in food.
- 4) How is the adulteration in honey detected?
- 5) Differentiate xerophthalmia and keratinisation.
- 6) What are Essential and Non-essential amino acids and list a few of them?
- 7) List out some of the extruded products with their brand names.
- 8) What is the difference between a juice and a squash?
- 9) With examples, state the reasons for taking beverages.
- 10) How are preservatives classified?

Part – B (5 x 16 = 80 Marks)

- 11) a) Explain the fermentation of carbohydrates, proteins and lipids. (8)
 - b) What are the various packaging environments and explain the 12 grid system of representation? (8)
 - 12) a) i) Explain the various International Food standards. (10)
 - ii) Write short notes on sensory evaluation of foods. (6)
- (or)
- b) i) Explain the Essential Commodities Act and the orders covered. (10)
 - ii) Write short notes on pH and its application to food science. (6)

13) a) i) Explain in detail how the total energy requirement of the body is calculated. (8)

ii) Discuss the food attributes in detail with suitable examples. (8)

(or)

b) With suitable examples, explain how are proteins classified and the methods to assess their quality. (16)

14) a) i) What are the general functions of minerals and list out the various forms in which they are present in the body? (10)

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

(or)

b) i) How are vitamins classified? (8)

ii) Write short notes on Vitamin B. (8)

15) a) i) Explain the methods of preparation of different types of candies. (8)

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

(or)

b) i) Detail the steps involved in the development of extruded products. (8)

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