

KERALA AGRICULTURAL UNIVERSITY
B.Tech. (Food Engineering) - 2011 Admission 1st Semester
Final examination – February – March 2012

Cat. No: Fdsc 1101
Title: Food Science and Nutrition

Marks: 80
Time : 3 hours

- I A. Fill up the blanks: (5x1=5)
1. Honey is better than sugar in confectionery industry because of its ----- property.
 2. The richest source of vitamin B₁ is -----
 3. The PFA Act was passed in India in -----
 4. Calcium requirement for a pregnant woman is -----
 5. Pernicious anaemia is due to the deficiency of -----

B. Define the following: (5x1=5)

1. Haemosiderosis
2. Maillard reaction
3. Osteoporosis
4. Nutritional status
5. Phytonutrient

II Write short notes on any **TEN** (10x3=30)

1. Physiological energy value of foods
2. Factors affecting quality of pulses
3. Role of vitamin E in food industry
4. Factors which influence the planning of meals for a family
5. RDA
6. Functions of thiamine and riboflavin
7. Parboiling and its advantages
8. Factors affecting gelatinization
9. Fluorosis
10. Functions and sources of ascorbic acid
11. Advantages & disadvantages of microwave cooking
12. Interrelationship between calcium, Phosphorus and vitamin D

III Write short essays on any **SIX** of the following: (6x5=30)

1. What are the different methods of food preparation? Explain.
2. Explain in detail the different packaging materials used in fruit and vegetable processing.
3. Write the importance of pulses in our daily diet.
4. Explain the functions and sources of vitamin A.
5. Discuss in detail Food laws and Food standards
6. Define food additives. Classify food additives citing suitable examples.
7. Expand HACCP and write its basic principles.
8. Explain briefly the causes and symptoms of nutritional anaemia.

IV Write an essay on any **ONE** of the following: (1x10=10)

1. Define BMR. Explain the various factors which influence the BMR.
2. Discuss water under the following headlines:
 - a) Functions
 - b) Balance
 - c) Hormonal control
 - d) Water retention & depletion