

# KERALA AGRICULTURAL UNIVERSITY

B.Tech (Food.Engg) 2015 Admission  
I<sup>st</sup> Semester Final Examination-January -2016

Cat. No: Fdsc.1101

Title: Food Science and Nutrition (2+1)

Marks: 50.00

Time: 2 hours

## I Fill up the blanks

(10 x 1=10)

1. \_\_\_\_\_ is the most widely used emulsifier, which is found in milk
2. \_\_\_\_\_ is a disease caused by the deficiency of thiamine
3. Dispersion involving a solid as the dispersed phase and liquid as the continuous phase is named as \_\_\_\_\_
4. Niacin deficiency leads to a disease condition known as \_\_\_\_\_
5. \_\_\_\_\_ is a condition associated with a loss in bone density and bone mass due to deficiency of calcium
6. Starch subjected to dry heat is known as \_\_\_\_\_
7. \_\_\_\_\_ is a precursor of niacin
8. \_\_\_\_\_ is an example for a leavening agent
9. \_\_\_\_\_ is the physiological energy value from 1 gm of fat
10. \_\_\_\_\_ is a combined method of cooking involving roasting and stewing

## II Answer any Five questions

(5 x 2=10)

1. Give the ICMR classification of food groups
2. What is fermentation? Discuss the advantages of fermentation
3. Discuss the RDA for a pregnant woman
4. Define antioxidants, its classification and role in food industry
5. What is the role of emulsifiers in food and discuss on any two types of emulsions with examples
6. Discuss on iodine deficiency disorders
7. What are the steps to be undertaken to minimize cooking loss of nutrients from vegetables

## III Answer any Five questions

(5 x 4=20)

1. What is water balance of the body? How does body maintain water balance
2. Define BMR? What are the factors affecting BMR
3. What is parboiling? Explain its advantages and limitations
4. Explain the packaging of foods under the following
  - a) Classification
  - b) Materials used
  - c) Laws related to packing
5. How does crystallization of sugar take place? Explain the factors affecting crystallization

6. Explain the functions, sources, deficiency and factors affecting the absorption of calcium?

7. Discuss briefly on food standards?

**IV Answer any one question**

(1 x 10=10)

1. Explain on browning reactions in food?

2. Discuss about the functions, RDA, sources and deficiency symptoms of Vitamin A