

# KERALA AGRICULTURAL UNIVERSITY

B.Tech.Food Engg. 2015 Admission

IIIrd Semester Final Examination-January 2017

Cat. No: Fdqu 2104

Title: Biochemistry of Food processing & Preservation(1+1)

Marks: 50

Time : 2 hours

## I. Fill in the blanks:

(10 x 1=10)

1. The principal effect of heat on proteins is -----
2. The compound formed during the degradation and epimerization of sugars are ----- and -----
3. The process of heating before the processing of vegetables is known as -----
4. The repeated washing of rice leads to the loss of the vitamin-----
5. Water content of perishable foods is very-----
6. The main preservative used in pickling process is -----
7. The two components of starch are ----- and -----
8. The polysaccharide used as a food additive produced by fermentation of glucose or sucrose by the *Xanthomonas campestris* is -----
9. The enzyme used to soften the cell wall of fruits during the ripening is -----
10. Protease present in the papaya is -----

## II. Write short notes/answers on ANY FIVE:

(5x 2=10)

1. Rancidity.
2. Acrylamide.
3. Rf value.
4. Log Phase of microbial growth curve.
5. Anti nutritional factor.
6. Pectins.
7. Essential amino acids.

## III Write answers on ANY FIVE:

(5 x 4=20)

1. Caramelization of sugars.
2. Freezing of Foods.
3. Food preservatives and its mechanism of action.
4. List the loss of nutrients and prevention of loss during cooking.
5. Give the principle, instrumentation and application of spectrophotometer.
6. Biochemical changes during malting process.
7. Types of fermentation.

## IV. Write essay on any ONE

(1 x 10=10)

1. Explain in detail about the enzymatic browning process.
2. Describe the biochemical changes during the storage of fruits and vegetables.