

# KERALA AGRICULTURAL UNIVERSITY

B.Tech (Food. Engg) 2013 Admission

IV<sup>th</sup> Semester Final Examination-June/July -2015

Cat. No: Fdpr.2201

Marks: 50.00

Title: Post harvest Engineering of Horticultural Crops (2+1)

Time: 2 hours

## I Fill up the blanks

(10 x 1=10)

1. Canning is also known as \_\_\_\_\_
2. Blanching is used to destroy \_\_\_\_\_ in vegetables and fruits prior to further processing
3. Refractometer is used to measure the \_\_\_\_\_ of the fruits
4. Sublimation occurs in \_\_\_\_\_ drying
5. \_\_\_\_\_ is the process of restoring moisture to a dried food

## Write True or False

6. Phosphine is used to control insects in storage structures
7. Pre-cooling is done to remove field heat of crops
8. The water activity of the dehydrated material is higher
9. 10 KGy is recommended as the safe dosage for irradiation of food material
10. Spray dryers are not used for production of juice powders.

## II Write short notes on any FIVE questions

(5 x 2=10)

1. Sorting
2. Minimal processing
3. Non-climacteric fruits
4. Pre-treatments of vegetables
5. Maturity indices
6. Sphericity
7. Osmotic dehydration

## III Write short essays on any FIVE questions

(5 x 4=20)

1. Explain direct methods of preservation of mushroom and their byproducts utilization
2. Give flow chart for a) Canning of pineapple slices b) Jam preparation from mixed fruits
3. Explain modified and controlled atmospheric storage
4. Explain the factors affecting the post harvest losses
5. Explain fluidized bed drying with neat figure
6. Explain the changes during ripening of fruits
7. What are the different pre-cooling methods. Explain forced air cooling

**IV Write an essay on any ONE**

**(1 x 10 = 10)**

1. What is packaging .Give requirements and functions of packaging material? What are the different types of packaging material
2. Give importance of quality. What are quality control measures? What is GAP and give basic principles of GAP