



**KERALA AGRICULTURAL UNIVERSITY**  
**B.Tech.(Food Engineering) 2019 Admission**  
**VII Semester Final Examination – December 2022**

**Fdpr.4107**

**Storage and Preservation Technology (1+1)**

**Marks: 50**  
**Time: 2 hours**

**I Fill in the blanks (10x1=10)**

1. A grain bin is referred to as a ..... bin when depth of grains is less or equal to equivalent diameter.
2. In a deep bin, depth of grain is greater than .....
3. Methl bromide, malathion and phosphine are .....
4. The dust produced from the harvesting, drying, handling, storage or processing of grains is called .....
5. One time modification of gaseous environment is carried out in .....
6. The ..... symbol is mandatory in the label of irradiated foods.
7. Irradiation inhibits ..... in onion and potatoes.
8. The rapid reduction of field temperature prior to processing, storage, or refrigerated transport is known as .....
9. ....gas is used as inert gas in packaging.
10. Stack to stack distance in 500 ton grain warehouse should be ..... m.

**II Write short notes on ANY FIVE of the following (5x2=10)**

1. List any four methods of precooling.
2. What are Modified humidity packages (MHP)?
3. Give examples of ITK for storage.
4. Classify fresh horticultural crops according to their relative perishability and potential storage life in air at near optimum temperature and relative humidity.
5. Name four extrinsic factors controlling the rate of deterioration reactions.
6. Write about the Hapur bin.
7. What are the Physiological causes of spoilage in perishables and durables?

**III Answer ANY FIVE of the following (5x4=20)**

1. Mention the techniques used for Insect control.
2. Write about the improvements which can be made to the Underground pit storage.
3. What are the different Losses caused by insects?
4. List the merits and demerits of Food Irradiation.
5. Brief about Hermetic Storage.
6. Write about Cover and Plinth Storage.
7. Differentiate between bag and bulk storage.

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

1. Briefly discuss controlled and modified atmosphere packaging of fruits and vegetables.
2. Describe how aeration can be used to maintain the quality of bulk grain in storage.

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