



KERALA AGRICULTURAL UNIVERSITY
B. Tech. (Agrl. Engg.) 2020 Admission
VI Semester Final Examination – July 2023

Fape.3206

Post Harvest Engineering of Horticultural Crops (1+1)

Marks: 50
Time: 2 hours

- I Fill in the blanks (10x1=10)**
1. Pre-cooling of fruit and vegetables is done at a temperature of
 2. The antioxidant found abundant in citrus fruits is
 3. The enzyme which is responsible for browning of fruit and vegetables is
 4. Relative humidity generally recommended for the storage of fruits is
 5. The most suitable material used for canning of vegetables is
- Define the following**
6. Chilling and freezing
 7. Pack house technology
 8. Minimal processing of fruits
 9. Supply chain of foods
 10. Packaging of foods
- II Write short notes on ANY FIVE of the following (5x2=10)**
1. Differentiate between the D-value and F-value.
 2. Differentiate between slow freezing and quick freezing.
 3. Define blanching and write the objectives of blanching.
 4. Write a short note on pre-treatments for drying of fruits and vegetables.
 5. Explain in brief about osmotic dehydration of fruits.
 6. Write a short note on consumer packs and transport packs.
 7. Explain in brief about evaporative cooled storage.
- III Answer ANY FIVE of the following (5x4=20)**
1. List out the major causes of food deterioration and explain in brief.
 2. Explain the principle and operation of freeze drying process with a neat line diagram.
 3. Explain about the cold storage design and its heat load calculation.
 4. Explain the functions of packaging material and list out the different types of packaging materials commonly used for raw and processed fruits.
 5. Write a short note on post-harvest management and equipment for spices.
 6. Write a short note on quality control in fruit and vegetable processing industry.
 7. Discuss in detail about the peeling methods and devices used for fruits and vegetables.
- IV Write an essay on ANY ONE of the following (1x10=10)**
1. Explain in detail about the preservation of fruits and vegetables.
 2. Discuss regarding the controlled atmospheric and modified atmospheric storage.
