



KERALA AGRICULTURAL UNIVERSITY
B.Tech.(Food. Engg.) 2018 Admission
VI Semester Final Examination- October 2021

Fdpr.3204

Post Harvest Engineering of Plantation Crops (2+1)

Marks: 50
Time: 2 hours
(10x1=10)

I Fill in the blanks

1. Commercially cultivated coffee species are ----- and -----
2. Indian Institute of Plantation Management is located at -----.
3. The preferred method of recovering rubber from latex involves -----
4. The yield of white pepper by improved CFTRI process is -----
5. Major volatile oil derived from the dried buds of clove is -----.

State True or False

6. The coffee obtained by wet method is known as wet coffee
7. Nib yield is the term related to turmeric processing
8. The fermented coconut inflorescence sap is called as Toddy.
9. The basic principle of centrifugal sheller used in cashew nut processing is compression
10. Polypropylene is the best packaging material to store ground spices.

II Write short notes on ANY FIVE of the following

(5x2=10)

1. Difference between oleoresin and essential oil
2. Discuss in brief about the processing of conventional tea
3. Important unit operations in cocoa processing
4. The moisture content of ginger is 25% dry basis. Convert into wet basis moisture content.
5. Cryogenic grinding of spices
6. Major unit operations in the production of desiccated coconut powder.
7. Explain about power operated arecanut dehusker

III Answer ANY FIVE of the following

(5x4=20)

1. Identify the name of the plantation crops related with the following unit operations/processes.
 - a. Blanching in 0.2% calcium chloride solution
 - b. Fermentation reduces tannin content and turns into black colour.
 - c. Oil bath roasting
 - d. Fermentation reduces pH, improves colour and aroma/flavor, enhances the keeping quality
 - e. Use of pectinolytic enzymes to reduce the fermentation period
 - f. Paring process
2. Discuss in brief about the two improved methods (NRDC and CFTRI process) of white pepper production.
3. Draw the flow-sheet for artificial drying/dehydration of chillies along with mass balance.
4. Explain about TNAU model of improved steam boiler for turmeric
5. Explain the process for making dried ginger
6. Explain the different types of extraction methods followed for medicinal crops in detail.
7. Discuss about the different bleaching processes of cardamom.

IV

Write an essay on ANY ONE of the following

(1x10=10)

1. Mention the different methods of virgin coconut oil production and explain the unit operations involved in preparation of virgin coconut oil by hot process
2. Draw a flow chart for primary and secondary processing of oil palm fruit and refining of palm oil.
