

KERALA AGRICULTURAL UNIVERSITY

B.Sc (Hons.) Agriculture 2012 & Previous Admissions

Vth Semester Final Examination-January-2017

Cat. No: Engg.3103

Marks: 80.00

Title: Protected Cultivation and Post harvest Technology (1+1)

Time: 3 hours

I Fill up the blanks/True or False

(10x1=10)

1. In attrition mill, the size of food grains is reduced by -----
2. A greenhouse attached to a building is usually called as ----- greenhouse.
3. In freeze drying, water is removed from the product by -----
4. Separation of liquids from solids by the application of pressure is known as -----
5. Holding of grains during the two drying passes is termed as -----

State True or False

6. The relationship between equilibrium moisture content and relative humidity for biological materials has been given by Rankine.
7. LSU drier is most commonly used in modern rice mills.
8. Light which is useful for photosynthesis of plants is termed as ultra violet radiation.
9. The greenhouse foundation should be of telescopic type.
10. Cyclone separators are the best primary powder separator system.

II Write short notes/answers on any TEN of the following

(10x3=30)

1. Even span and uneven span type green houses.
2. Equilibrium moisture content.
3. Cooling methods in a green house.
4. Constant rate and falling rate drying.
5. Terminal velocity.
6. Threshing efficiency and cleaning efficiency.
7. Difference between bound moisture and unbound moisture.
8. Destructive and non destructive sampling
9. Explain the drying characteristic curves.
10. Good agricultural Practices.
11. Advantages of using green houses.
12. Difference between a fruit and a vegetable.

III Write short answers on any SIX

(6x5=30)

1. What are the principles and equipments used in size reduction?
2. Different types of storage structures used for grain storage.
3. Determine the values of c and n from the Henderson's equation for the following data obtained from thin layer paddy drying studies
RH-30 percent Temp- 50°C Me-11.5 percent
RH-60 percent Temp- 50°C Me-16.5 percent
4. Explain passive greenhouses? What are the heating methods in passive greenhouses?
5. What are the factors to be considered in site selection of green houses?
6. What is greenhouse effect?
7. What is mechanical drying? Explain its features?
8. Discuss different types of dryers used.

IV Write essay on any ONE

(1x10=10)

1. A. List the various equipments employed in a modern rice processing plant.
B. Explain any two equipment with neat sketches?
2. A. Explain the components of a greenhouse?
B. Explain the environmental/climatic parameters affecting plant growth in a green house?
