



KERALA AGRICULTURAL UNIVERSITY
B.Tech.(Agri. Engg) 2015 Admission
VI Semester Final Examination-July 2018

Phpt. 3206

Drying Technology (1+1)

Marks: 50
Time:2 hours

- I Fill up the blanks: (10x1=10)**
- 1 means removal of small amount of moisture from a solid or nearly solid material by evaporation.
 - 2 moisture is the moisture contained by a substance in excess of the equilibrium moisture.
 - 3 is useful to determine whether the product will gain or lose moisture
 - 4 Cereal grains are usually dried entirely underdrying period.
 - 5 Drying process involves
 - 6 The relation between EMC & RH for biological material has been given by.....
 - 7 LSU Dryer was developed at.....
 - 8 In thin layer drying of food grains the thickness of the layer is limited to.....
 - 9 The moisture content at which constant rate drying ceases and falling rate drying starts is called as
 - 10 Psychrometrics chart is graphical representation of properties of air
- II Write Short notes on any FIVE of the following (5x2=10)**
- 1 Define EMC
 - 2 Convert 20% wet basis moisture content to dry basis
 - 3 Explain hysteresis effect
 - 4 Define absolute humidity, percentage humidity and relative humidity
 - 5 Define dry bulb temperature and wet bulb temperature
 - 6 Enlist at least four EMC models
 - 7 Importance of EMC
- III Answer any FIVE of the following. (5x4=20)**
- 1 Write short notes on deep bed drying
 - 2 One tonne of grain with 25% (wb) moisture content is to be dried to 15% (db) moisture content. Calculate the weight of bone dry product and weight of water evaporated.
 - 3 Illustrate the factors affecting drying process.
 - 4 Describe the construction of Psychrometric chart
 - 5 Describe methods for determination of EMC
 - 6 What are the direct methods of moisture content determination
 - 7 Write notes on drying theory
- IV Write an essay on any ONE of the following (1x10=10)**
- 1 Enlist the various types of driers and explain any one with neat sketch
 - 2 Enlist and explain any one method of drying in detail
