

KERALA AGRICULTURAL UNIVERSITY

B.Tech (Agrl.Engg) 2012 Admission
VIIth Semester Final Examination-January -2016

Cat. No: Phpt 4108

Title: Storage Engineering (2+0)

Marks: 80.00

Time: 3 hours

Part-I- State True or False

(10x1 =10)

1. Bag storage structures are generally used for storage of 25-500 tonnes of grain.
2. Zinc Phosphide is effective chemical to control rat's infestation in grain storage structure.
3. TR is unit to represent refrigeration load.
4. Safe storage moisture content for oilseed is comparatively higher than cereals.
5. Janssen equation used to calculate lateral pressure inside storage bin.
6. Pusa bin, CAP & bunker storage is traditional storage structure.
7. Morai type traditional storage structure is mostly popular in eastern and southern region of India.
8. Screw conveyor is preferred for vertical transportation of grain.
9. For safety purpose, dynamic pressure considered as same as static pressure.
10. Aeration is commonly practiced to control environment inside silo.

Part-II- Write short notes on following (Any Ten)

(10x3 =30)

1. Importance of storage
2. Classification of Agriculture commodity based on storage
3. Refrigeration load
4. Gases used in MAS
5. Respiration of fruits and vegetables
6. Destructive agents of storage
7. Mechanical Ventilation
8. Cold storage
9. Causes of spoilage in storage
10. Storage conditions for cereal grains
11. Hermetic storage
12. Material Handling devices

Part-III- Write short essays on following (Any Six)

(6x5 =30)

1. Define MAS and explain its importance.
2. Discuss any two traditional storage structures with neat diagram?
3. Write short notes on Aeration
4. Explain physical-chemical and biological methods of controlling destructive agents of storage
5. Differentiate deep & shallow bin.
6. Write short note on seed storage.
7. Discuss factors to be considered for Ware house design
8. Write short note on Bucket elevator.

Part-IV- Write essays on following (Any One)

(1x10 =10)

1. Explain Design and layout of bag Storage structure with suitable example?
2. Discuss elaborately about control atmosphere storage system?