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Question Paper Code: 99A11

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2022

Elective

Agricultural Engineering

19UAG911- Drying and Storage Engineering

(Regulations 2019)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

- Moisture content is expressed as a _____ CO1- U
(a) Boiling (b) Temperature (c) Percentage (d) kilo gram
- What is a triple point of pure water? CO1- U
(a) -0.01°C (b) 0.01°C (c) 0.1°C (d) -0.1°C
- In freeze drying the removal of moisture take place due to CO2- U
(a) Boiling (b) condensation (c) sublimation (d) none of the above
- The level of post harvest perishables is CO2- U
(a) 10-15% (b) 25-33% (c) 20-25% (d) 35-40%
- What is the maximum storage period of food grains in rural godowns ? CO3- U
(a) 2 months (b) 5 months (c) 8 months (d) 10 months
- _____ has the largest agricultural warehousing systems CO3- U
(a) FCI (b) CWC (c) SWCs (d) none of the above
- _____ systems can be installed in both horizontal and vertical storages CO4- U
(a) mechanical (b) ware house (c) natural (d) silo
- Silos are used on large scale for the bulk storage of which of the following ? CO4- U
(a) oil seeds (b) beans (c) fruits (d) none
- The capacity of kothar type storage structure varies from: CO5- U
(a) 5 to 15 tonnes (b) 7 to 25 tonnes (c) 10 to 40 tonnes (d) 9 to 35 tonnes

10. The storage capacity of mud kothi is CO5 -U
(a) 1 to 20 tonnes (b) 1 to 30 tonnes (c) 1 to 40 tonnes (d) 1 to 50 tonnes

PART – B (5 x 2= 10Marks)

11. List out the importance of EMC. CO1- U
12. Explain about tray & tunnel dryers. CO2- U
13. Explain about aeration process ? CO3- U
14. Describe about Nutrient changes in grain ? CO4- U
15. Explain about bukhari storage structure ? CO5- U

PART – C (5 x 16= 80Marks)

16. (a) Write in detail about Thin layer and Deep bed dryer with neat sketch? CO1- U (16)
Or
(b) What is moisture content and explain its methods ? CO1- U (16)
17. (a) Explain about solar dryer and continuous flow dryer with neat sketch? CO2 -U (16)
Or
(b) Explain briefly about sun drying and its method with neat sketch ? CO2 -U (16)
18. (a) Explain about Storage of perishable products ? CO3- U (16)
Or
(b) Explain about any five causes of spoilage in storage ? CO3 -U (16)
19. (a) Briefly explain about natural ventilation, Mechanical ventilation of storage methods with neat sketch ? CO4- U (16)
Or
(b) Explain about controlled Modified atmospheric storage and its methods? CO4 -U (16)
20. (a) Explain about Storage of cereal grains and their products with neat sketch? CO5 -U (16)
Or
(b) Briefly explain about types of grain storage structure with neat sketch? CO5- U (16)