

**A**

Reg. No. :

--	--	--	--	--	--	--	--	--	--

**Question Paper Code: 99A11**

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2021

Elective

Agricultural Engineering

19UAG911 - Drying And Storage Engineering

(Regulation 2019)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

- Thin layer of drying is limited to .....cm of bed depth CO1- R  
(a) 10 (b) 20 (c) 30 (d) 40
- Moisture content of paddy at the time of milling should be CO1- R  
(a) 12% (b) 14% (c) 16% (d) 18%
- In which of the following is used for radiation drying CO2- R  
(a) spray dryer (b) drum dryer (c) flash dryer (d) microwave dryer
- .....packaging helps for increasing shelf life of milk CO2- R  
(a) septic (b) aseptic (c) HDPE (d) LDPE
- Which of the following microorganism is popular for spoilage in fruits and vegetables? CO3- R  
(a) mesophile (b) thermophile (c) psychrophile (d) all the above
- Coefficient of performance of dryer is CO3- R  
(a)  $1/HUF$  (b)  $HUF - 1$  (c)  $HUF + 1$  (d)  $1 - HUF$
- ..... is the most widely used inert gases in modified atmospheric packaging CO4- R  
(a) Xenon (b) Neon (c) Argon (d) Helium

8. which of the following is used to pack coffee CO4- R  
 (a) LDPE (b) HDPE (c) Both (d) none
9. which of the following is used for primary packaging of butter CO5- R  
 (a) oiled paper (b) Kraft paper (c) wax paper (d) parchment paper
10. The length of storage of fruits in vegetable is a function of ..... CO5 -R  
 (a) resistance to attack by micro organism (b) gases in the environment  
 (c) both a and b (d) none of the above

PART – B (5 x 2= 10Marks)

11. Explain the term of theory of diffusion and critical moisture content. CO1- U
12. What are the requirement of ideal grain storage structure? CO2- U
13. What are the types of spoilage in storage ? CO3- U
14. What is mean by breakage of Seeds? CO4- U
15. What are the types of traditional Storage Structures? CO5- R

PART – C (5 x 16= 80Marks)

16. (a) Explain the details about different type of dryers and with neat sketch. CO1- U (16)  
 Or  
 (b) Explain the detail about the moisture content and method for determination. CO1- U (16)
17. (a) Explain the details about the types of spoilage and areas. CO2 -U (16)  
 Or  
 (b) Explain the details about the control of enviroment inside the storage. CO2 -U (16)
18. (a) Explain the details about the theory of diffusion. CO3- U (16)  
 Or  
 (b) Explain the details about the types of microwave dryers and microwave heating. CO3 -U (16)
19. (a) Explain the types of storage and classification. CO4- U (16)  
 Or  
 (b) Explain the details about the Destructive Agents in Storage. CO4 -U (16)

20. (a) Explain the details about the storage of seeds. CO5- U (16)
- Or
- (b) Explain the details about the storage of cereal grains. CO5- U (16)