

- Q.26 Differentiate between moisture content and equilibrium moisture content. (CO3)
- Q.27 Discuss the influence of moisture content, relative humidity, temperature on stored grain products. (CO4)
- Q.28 Explain the working principle of Screw conveyor with a neat diagram. (CO1)
- Q.29 Enlist different grains drying system and discuss the continuous flow drying system. (CO3)
- Q.30 Describe various frictional properties of agricultural materials. (CO2)
- Q.31 Discuss various types of insects that affect the stored grains. (CO4)
- Q.32 Describe the concept of controlled and modified atmosphere storage. (CO5)
- Q.33 Explain the oven drying method of moisture determination along with formulas. (CO3)
- Q.34 Define packaging. Enlist different packaging materials. (CO5)
- Q.35 Write the different losses during storage of grains and how will you control them? (CO4)

Section-D

Note: Long answer questions. Attempt any two questions out of three Questions. (2x10=20)

- Q.36 Discuss various post-harvest treatments to increase the self-life of fruits and vegetables in detail. (CO5)
- Q.37 Explain the various post-harvest operations of agricultural products and their utility in agricultural processing. (CO1)
- Q.38 Enlist different types of grain dryers. Explain in detail about fluidized bed dryer with diagram. (CO3)

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Roll No.

4th Sem. Branch: AGRI ENGG.

Sub : Post Harvest Technology

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Multiple choice Questions. All Questions are compulsory. (10x1=10)

- Q.1 Post harvest technology includes (CO1)
- a) Packaging b) Storage
- c) Marketing d) All of these
- Q.2 Formula for calculating the thermal conductivity is (CO2)
- a) $K \cdot A \cdot \Delta T$ b) $K \cdot \Delta T$
- c) $K \cdot A$ d) None of these
- Q.3 A uniform grain moisture content after drying is obtained in (CO-3)
- a) Batch drying
- b) Sun drying
- c) Continuous flow drying
- d) All of these
- Q.4 Angle of repose is a _____ property of agricultural material. (CO2)
- a) Physical b) Mechanical
- c) Thermal d) Frictional

- Q.5 When temperature rises and relative humidity of air decreases the grain will ____ the moisture content. (CO3)
 a) Loose b) Gain
 c) Static d) None of these
- Q.6 Which of the following is not artificial drying method. (CO3)
 a) Convective drying b) Contact drying
 c) Sun drying d) Radiation drying
- Q.7 Insect which follows the destruction already started by the major insect is known as (CO4)
 a) Parasite b) Incidental
 c) Major d) Minor
- Q.8 Which of the following is a permanent storage structure. (CO4)
 a) Pusa bin b) Vertical silos
 c) Muda d) Mud khoti
- Q.9 Proper post-harvest cooling can. (CO5)
 a) Slow the growth of decay
 b) Increase the decay
 c) Both A & B
 d) None of these
- Q.10 The packaging which results in accumulation of CO₂ and depletion of O₂ is. (CO5)
 a) Packaging
 b) Putting
 c) Modified atmosphere packaging
 d) None of these

Section-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Name any two material handling equipment. (CO1)
- Q.12 Define elasticity of agriculture materials. (CO2)
- Q.13 Modern storage structure comparatively require _____ space. (More/Less) (CO4)
- Q.14 Name any two types of packaging material. (CO5)
- Q.15 What is cool-chain? (CO5)
- Q.16 Storage structure in which the plane of rupture meets the grains surface before its strikes the opposite side is called _____. (CO4)
- Q.17 Define drying of grain. (CO3)
- Q.18 Morari type is a _____ storage structure. (CO4)
- Q.19 The losses in storage due to chemical change in protein, carbohydrates and fat are called _____. (CO4)
- Q.20 When the group of trays is stationary, the drying system is said to be _____. (CO3)

Section-C

Note: Short answer type Questions. Attempt any twelve questions out of fifteen Questions. (12x5=60)

- Q.21 What is the scope of post-harvest technology in the present situation? (CO1)
- Q.22 How will you represent the moisture content of grain? (CO3)
- Q.23 Describe the Infra-red method of moisture content determination. (CO3)
- Q.24 Discuss different thermal properties of Agricultural products. (CO2)
- Q.25 How the space requirement of bag storage structure is assessed? (CO4)