

- Q.28 What are the different factors affecting the drying of Cereals and Pulses?
- Q.29 How the space requirement in bag storage is determined?
- Q.30 Write a note on Batch drying system.
- Q.31 Differentiate between Deep and Shallow bins.
- Q.32 Define Packaging. List any five packaging materials.
- Q.33 What do you understand by the Terminal Velocity and Drag Coefficient.
- Q.34 Explain the Cool-chain for handling, storage and marketing of fruits and vegetables.
- Q.35 What are the various types of insects that affect the stored grains?

SECTION-D

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

- Q.36 What are the different types of grain storage structures? Discuss their management in detail.
- Q.37 Write a short note on:
- Terminal Velocity and Drag Coefficient
 - Conduction drying and Convection drying.
- Q.38 Explain the working of different material handling equipments in details.

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**4th Sem / Agri Engg.
Subject:- Post Harvest Technology**

Time : 3Hrs. M.M. : 100

SECTION-A

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

- Q.1 Which of the following is not postharvest operation?
- Sowing
 - Grading
 - Milling
 - Storage
- Q.2 Density of the material can be represented by
- Weight/Length
 - Mass/Volume
 - Mass/Weight
 - None of these
- Q.3 The losses in storage due to chemical change in protein, carbohydrates and fat are
- Qualitative
 - Quantitative
 - weight
 - None of these
- Q.4 Moisture migration takes place in stored grain due to
- Quantity of storage
 - Storage structure
 - Temperature change
 - None of these
- Q.5 Self life of fruits and vegetables can be increased by adopting
- Post harvest technology
 - Pre harvest technology

- c) Crop production technology
 - d) None of these
- Q.6 Classification of cleaned grain into various quality fractions is called
- a) Cleaning
 - b) Separating
 - c) Storage
 - d) Grading
- Q.7 The insect which depends upon other insects are called
- a) Minor
 - b) Major
 - c) Parasites
 - d) None of these
- Q.8 Separating liquid from a liquid solid system with the use of solvent is called
- a) Extraction
 - b) Expression
 - c) Crushing
 - d) None of these
- Q.9 Formula for calculating the thermal conductivity is
- a) $K \cdot A \cdot \Delta T$
 - b) $K \cdot \Delta T$
 - c) $K \cdot A$
 - d) None of these
- Q.10 Moisture content can be represented by
- a) Wet basis
 - b) Dry basis
 - c) Both A and B
 - d) None of these

SECTION-B

Note: Objective type questions. All questions are compulsory. $(10 \times 1 = 10)$

- Q.11 Define Storage.
- Q.12 Define Blending.
- Q.13 Kinetic friction is a _____ property of agricultural material.

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- Q.14 When temperature rises and relative humidity of air decreases the grain will _____ the moisture content.
- Q.15 Define Terminal velocity.
- Q.16 Name any two physical properties of agricultural materials.
- Q.17 Mechanically pressing liquid out of liquid containing solid is called _____ process.
- Q.18 Define Thermal Diffusivity.
- Q.19 Modern storage structure comparatively requires _____ space. (More/Less)
- Q.20 Define specific gravity.

SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. $(12 \times 5 = 60)$
- Q.21 What are the need and importance of Post Harvest Technology.
- Q.22 How will you represent the moisture content of grains?
- Q.23 Describe the principles of operation of LSU Dryer.
- Q.24 Explain the working principle of Bucket Elevator with a neat diagram.
- Q.25 Describe the factors affecting the storage the fruits and vegetables.
- Q.26 Differentiate the Bag and Bulk storage of cereals and pulses.
- Q.27 Describe the Aero and Hydrodynamic properties of agricultural materials.

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