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KERALA AGRICULTURAL UNIVERSITY
B. Tech.(Food Technology) 2025 & Previous Admission
II Semester Final Examination – July 2026

FPE 1201

Post Harvest Engineering (2+1)

Marks: 50
Time: 2 hours

I Fill in the blanks

(10x1=10)

1. Roundness is a measure of the sharpness of the
2. Color sorting is used to separate materials on the basis of
3. Photometric properties may be used as a basis for
4. Specific gravity separator makes the separation according to difference in
5. Specific gravity of grains is determined by

State True or False

6. Cleaning and grading are the same process
7. The coefficient of friction between a grain and a surface is the same whether the grain is moving or stationary.
8. Size reduction is only important for creating specific textures in food products.
9. Material handling systems should always prioritize reducing handling costs.
10. Food grains with a higher bulk density will require more storage space.

II Write short notes on ANY FIVE of the following

(5x2=10)

1. Explain importance of engineering properties in food.
2. Write a short note on belt conveyor.
3. Write a short note on bucket elevator and types.
4. Write a short note on pneumatic conveying elevator and their limitations.
5. Explain principles of material handling.
6. Write a short note on classification of rheological materials.
7. Explain shear stress and shear rate.

III Answer ANY FIVE of the following

(5x4=20)

1. Explain frictional and thermal properties of food grains.
2. How to measure the surface area of leaf by using of Planimeter.
3. Explain groundnut decorticator with neat sketch.
4. Briefly explain the role of electrical properties in agricultural processing.
5. What is milling and explain hammer mill and roller mill?
6. Differentiate between dynamic viscosity and kinematic viscosity.
7. Briefly explain classification of size reduction process.

IV Write an essay on ANY ONE of the following

(1x10=10)

1. Explain in details about importance of peeling, sorting, grading and storage of fruits and vegetables.
2. Explain Rheological properties of ideal elastic, ideal plastic and pure viscous behavior with neat diagram.
