



## KERALA AGRICULTURAL UNIVERSITY

B. Tech. (Agri. Engg.)

III Semester Final Re - examination – February 2026  
2023 & Previous Admissions

**Fape.2102      Post Harvest Engineering of Cereals, Pulses and Oil Seeds (2+1)      Marks: 50**  
**Time: 2 hours**

**I**      **Fill in the blanks**      **(10x1=10)**

1. Pulses are major source of .....
2. .... causes vitamins and minerals to leach into the endosperm.
3. Critical moisture content in drying corresponds to the ..... of the constant rate period.
4. The botanical name for corn is .....
5. Starch is composed of two glucose polymers; amylose and .....

**State True or False**

6. Homogenizer is used for size reduction of solid material.
7. Moisture content by hot air oven method is determined at 150°C.
8. Proteins in legumes are deficient in methionine.
9. Steeping process of grains results in softening of kernel for grinding.
10. Polished rice is obtained by removing aleurone layer.

**II**      **Write short notes on ANY FIVE of the following**      **(5x2=10)**

1. What is critical moisture content and equilibrium moisture content?
2. What is crushing efficiency?
3. What are the properties determined using psychrometric chart?
4. Briefly state the objectives of Dry Milling.
5. Enumerate the benefits of solvent extraction process for oilseed extraction.
6. State the different types of separators.
7. State the principle behind the working of a pneumatic conveyor.

**III**      **Answer ANY FIVE of the following**      **(5x4=20)**

1. Explain the need for preconditioning of oil seeds.
2. State the unit operations involved in modern rice mills.
3. State and discuss the various size reduction procedures.
4. What is Bound, Unbound and Free moisture?
5. Discuss the thin layer and deep bed drying techniques.
6. With the help of a schematic diagram, explain the working of a smooth roll crusher.
7. Provide difference between single screw and twin screw extruder.

**IV**      **Write an essay on ANY ONE of the following**      **(1x10=10)**

1. State and discuss the different methods of drying. Mention one advantage and disadvantage of each.
2. What do you understand by parboiling? Discuss the advantages and disadvantages of parboiling of rice.

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