



**KERALA AGRICULTURAL UNIVERSITY**  
**B. Tech. (Agrl. Engg.) 2020 Admission**  
**VI Semester Final Examination – July 2023**

**Fpme.3213**

**Farm Machinery and Equipment – II (2+1)**

**Marks: 50**  
**Time: 2 hours**

**I State True or False**

**(10x1=10)**

1. Spray gun is a lance from which the spray is readily adjustable during the operation.
2. Nozzle disc is the part of a cone nozzle which impart rotation to the liquid passing through it.
3. An impact cutter has double element moving at high speed and operates by inertia of the material cut two furnish the opposing force required foe shear.
4. Rotary cutter has knife rotating in horizontal plane.
5. In a thresher a fan and air sucking duct known as aspirator.
6. Wire loop type threshing cylinder is mostly used for threshing in maize and wheat crop.
7. Flail mower is an assembly of two or more ground driven cylinder mowers.
8. The Sickle was introduced in 280 B.C and is still being used
9. In reaper ledger plate is hardened metal inserted in a guard over which knife sections move to give a scissor like cutting action.
10. A mower knife is said to be in proper registration when the knife section stops in the centre of its guard on every stroke.

**II Write short notes on ANY FIVE of the following**

**(5x2=10)**

1. What do you mean by axial flow thresher?
2. Write down principle of straw combine.
3. What do you mean by ground nut digger shaker?
4. What do you mean by harvesting?
5. What should be desirable quality of sprayer?
6. In a pump, suction volume is 25 litres/min and the pump efficiency is 85%. Calculate the shaft power at a pressure of 35 kg/cm<sup>2</sup>.
7. What do you mean by axial flow thresher?

**III Answer ANY FIVE of the following**

**(5x4=20)**

1. Define threshing and describe olpad thresher?
2. Describe Groundnut digger shaker work in the field?
3. What are the Functional components of a mechanical picker of cotton and describe Spindles?
4. Calculate the total time required to harvest 2.5 hectares of grass by means of a 2 metre mower being operated at 4 km/hr. Take field efficiency of mower as 80%.
5. Define hand chaff cutter and describe its components.
6. Define threshing unit of power thresher and what are the different type of threshing cylinder or drum?
7. Define harvesting combine and what is Pull type combine harvester?

**IV Write an essay on ANY ONE of the following**

**(1x10=10)**

1. What are the different Components of combine harvester? Describe
2. What are the Safety Precautions before spraying of sprayers?

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