



KERALA AGRICULTURAL UNIVERSITY

B.Sc. (Hons.) Ag.

Re-examination - July 2019
2015 and previous admission

Engg.1202

Farm Power and Machinery (1+1)

Marks: 50

Time: 2 hours

I Answer the following

(10x1=10)

- 1 Scavenging
- 2 Rolling resistance
- 3 Firing interval
- 4 Dead furrow
- 5 Swept volume

State True or False

- 6 In the four stroke engine four strokes of the piston or two complete revolutions of the crank shaft is needed to complete one cycle.
- 7 The extreme position of the piston near to the cover or cylinder head of the engine is called bottom dead center.
- 8 Tappet is the part of lubrication system.
- 9 A two stroke cycle engine has mechanical valves.
- 10 Field capacity of plough is expressed in kmph

II Write short notes on ANY FIVE of the following

(5x2=10)

- 1 Differentiate between vertical suction and horizontal suction.
- 2 Describe the working of a combine harvester.
- 3 What are the main components of a power tiller? Briefly explain the working of a power tiller.
- 4 Describe the working of Thermosiphon system of cooling
- 5 List the major farm power sources in Kerala farms. Which all operations require stationery power?
- 6 Distinguish between primary and secondary tillage.
- 7 What is a rotavator? What are its advantages?

III Answer ANY FIVE of the following

(5x4=20)

- 1 How does a standard disc plough differ from a vertical disc plough? Describe the functions of different parts of a disc plough?
- 2 What are the different types of sprayers? Describe the working of a ULV sprayer.
- 3 How is a spring loaded type cultivator different from a rigid tined cultivator? Describe with neat sketches.
- 4 What is the function of a Differential in a tractor? Explain its working with the help of diagram.
- 5 Define registration and alignment. Explain the working of a paddy reaper.
- 6 Explain the working of a two stroke cycle engine with neat sketches.
- 7 Write a note on the different types of tractors available.

IV Write an essay on ANY ONE of the following

(1x10=10)

- 1 Explain different sources of farm power. Discuss the scope of farm mechanization in Kerala.
- 2 What is the principle of carburetion? Explain working of fuel system of petrol engine.
