



**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.

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