KERALA AGRICULTURAL UNIVERSITY
B.Sc (Hons.) Ag. 2013 Admission
II ᵗᵈ Semester Final Examination- August-2014

Cat. No: Engg.1202   Marks: 50
Title: Farm Power and Machinery (1+1)   Time: 2 hours

I) Define the following   (10 x 1=10)

1. Scavenging

2. Rolling resistance

3. Firing interval

4. Swept volume

5. What is meant by dead furrow

State True or False

6. In the four stroke engine four stokes 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   (5 x 2=10)

1. Differentiate between vertical suction and horizontal suction

2. Describe the working of a combine harvester

3. What are the main components of power tiller ?Briefly explain the working of a power tiller

4. What are the main components of an I. C Engine

5. Describe the working of Thermosiphon system of cooling

6. List the major farm power sources in kerala farms.Which all operations require stationery power

7. Distinguish between primary and secondary tillage

III Write short essays on any FIVE of the following   (5 x 4=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 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 essay on ANY ONE   (1 x 10=10)

1. Explain different sources of farm power. Discuss the scope of farm mechanization in Kerala

2. What is the principle of carburetion. Explain the working of fuel system of petrol engine

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