

KERALA AGRICULTURAL UNIVERSITY

B.Tech (Agrl.Engg) Degree Programme 2014 Admission

IVth Semester-Final Examination-June/July-2016

Cat. No: Fpme.2209

Title: Farm Power (2+1)

Marks: 50

Time : 2 hours

I. Write True/False

(10 x 1=10)

1. Petrol is a conventional energy source.
2. Diesel engines are provided with ports.
3. Carburettor is present only in diesel engines.
4. Clutch is a component placed in between fly wheel and gear box.
5. Piston rings are provided for lubrication and compression.

Match the following

- | | | |
|------------------|---|----------------|
| 6. Fuel injector | : | Stroke length. |
| 7. BDC | : | Diesel. |
| 8. Gudgeon pin | : | Timing. |
| 9. Cetane number | : | Piston. |
| 10. Cam shaft | : | Diesel engine. |

II Answer the following any FIVE

(5 x 2=10)

1. Functional systems of a tractor.
2. Thermodynamic cycle of a diesel engine.
3. Fuel transmission system of a petrol engine .
4. Electrical systems of tractors.
5. Working of a self motor and dynamo in an IC engine.
6. Functions of crank shaft and its construction.
7. Compression ratio and its importance.

III. Write short notes on ANY FIVE of the following

(5x 4=20)

1. Compare SI engine and CI engine.
2. Explain the thermodynamic cycle of petrol engine with diagram.
3. Explain the working of lubricating system of an engine.
4. Explain valve 'timing' diagram of a petrol engine.
5. Define carburettor and explain its construction and working principle.
6. Explain the different types of fuels and compare their properties.
7. What is a governor and explain any one type of governor.

IV. Write essay on ANY ONE of the following

(1 x 10=10)

1. a) Explain the working of 4 stroke diesel engine with neat diagram.
b) Why diesel engines are preferred
2. Mention the different cooling system of an engine and explain.