

MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS**

**2016/2017 ACADEMIC YEAR**

**SECOND YEAR FIRST SEMESTER**

**SCHOOL OF BUSINESS AND ECONOMICS**

**BACHELOR OF SCIENCE IN AGRICULTURAL ECONOMICS**

**COURSE CODE: AGR 281**

**COURSE TITLE:** **AGRICULTURAL POWER AND                                  MACHINERY**

**DATE: 5TH JULY, 2017 TIME: 0830 – 1030HRS**

**INSTRUCTIONS TO CANDIDATES**

Answer Question **ONE** and any other **THREE** questions

*This paper consists of* ***TWO***  *printed pages. Please turn over.*

**Question 1**

1. Explain the advantages of mechanical farm power. **(3mks)**
2. Explain the desirable qualities of a sprayer **(3mks)**
3. Differentiate between internal and external combustion engines. **(4mks)**
4. Explain the undesirable effects of high temperature in engines. **(5mks)**
5. Briefly explain the care and maintenance practices of disc ploughs. **(5mks)**
6. Discuss the purpose of lubrication of moving parts in internal combustion engines. **(5mks)**

**Question 2**

1. Discuss the daily checks needed to keep the engine in good working condition. **(8mks)**
2. The definition of power (Horse power) varies between different applications. Explain. **(7mks)**

**Question 3**

In a 4 stroke engine, the piston completes one up and down cycle in four strokes. Discuss. **(15mks)**

**Question 4**

1. Explain the operation of the Knapsack sprayer. **(7mks)**
2. Briefly, discuss five sources of power in agriculture.  **(8mks)**

**Question 5**

1. Explain the adjustments done to control depth and width of ploughing to increase pulverization in disc ploughs. **(9mks)**
2. Explain the factors to consider during care and maintenance of farm sprayers. **(6mks)**

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