



MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS
2017/2018 ACADEMIC YEAR
SECOND YEAR SECOND SEMESTER**

**SCHOOL OF BUSINESS AND ECONOMICS
BACHELOR OF SCIENCE IN AGRICULTURAL ECONOMICS AND
RESOURCES MANAGEMENT**

COURSE CODE: ARE 2204

COURSE TITLE: FARM POWER AND MACHINERY

DATE: 24TH APRIL, 2018

TIME: 0830 - 1030HRS

INSTRUCTIONS TO CANDIDATES

Question **ONE** is compulsory.

Answer any other **THREE** questions.

This paper consists of 2 printed pages. Please turn over.

1. a) Explain the disadvantages of mechanical farm power. **(3 Marks)**
- b) Explain the desirable qualities of a sprayer. **(3 Marks)**
- c) Differentiate between Internal and external combustion engines. **(4 Marks)**
- d) Explain the undesirable effects of high temperature in engines. **(5 Marks)**
- e) Briefly explain the care and maintenance practices of disc ploughs. **(5 Marks)**
- f) Discuss the purpose of lubrication of moving parts in internal combustion engines. **(5 Marks)**
2. Describe the working of the four stroke cycle engine. **(15 Marks)**
3. Discuss the factors to consider when selecting a tractor for farm operations. **(15 Marks)**
4. a) Explain the operation of the Knapsack sprayer. **(6 marks)**
- b) Explain the factors to consider during care and maintenance of farm sprayers. **(9 Marks)**
5. a) Describe the cooling, sealing and cleaning effects of lubricants. **(6 Marks)**
- b) Explain the adjustments done to control depth and width of ploughing to increase pulverization in disc ploughs. **(9 Marks)**

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