



# MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS  
2018/2019 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: 29<sup>TH</sup> APRIL, 2019**

**TIME: 1100 - 1300HRS**

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**INSTRUCTIONS TO CANDIDATES**

Question **ONE** is compulsory.

Answer any other **THREE** questions.

*turn over.*

*This paper consists of 2 printed pages. Please*

## **QUESTION ONE**

a) Explain the advantages of mechanical farm power.

**(6 Marks)**

b) Describe and highlight the functions of piston rings in the engines.

**(5 Marks)**

c) Discuss the advantages and Disadvantages of Disc ploughs.

**(8 Marks)**

d) Explain the undesirable effects of high temperature in engines.

**(6 Marks)**

## **QUESTION TWO**

Describe the working of the four stroke cycle engine.

**(15**

**Marks)**

## **QUESTION THREE**

Discuss the factors to consider when selecting a tractor for farm operations.

**(15 Marks)**

## **QUESTION FOUR**

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)**

**QUESTION FIVE**

**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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