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(University of Choice)

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
DEPARTMENT OF AGRICULTURE
AND LAND USE MANAGEMENT**

UNIVERSITY EXAMINATIONS

**FIRST SEMESTER SUPPLEMENTARY/SPECIAL
EXAMINATION –
2021/2022 ACADEMIC YEAR**

AEN 381: FARM POWER AND MACHINERY

SUPPLEMENTARY EXAMINATION JULY 2022

Date: 2.8.22

Time: 8-10AM

Instructions:

Answer all Questions in Section A, which carries 40 marks and any 2 questions in Section B, which carries 30 marks

SECTION ONE

1. Briefly explain any 5 ways in which Draft Animal Power is undermined by people(5 marks)
2. Explain the functions of the general purpose tractor (5 marks)
3. What is the difference and relationship between the following terms: Farm Accessory, Farm Implement, Farm Equipment, Farm Tool (5 marks)
4. Outline any 5 causes of contaminating lubricating engine oil in farm machinery (5 marks)
5. Outline any 5 reasons why farm mechanization may be inappropriate (5 marks)
6. Provide any 5 ways in which the energy and resources footprints on the farm is increased (5 marks)
7. Provide the main feature of any 5 different types of energy sources applicable at the farm level (5 Marks)
8. Provide the main function of any 5 tractor types in use today (5 marks)

SECTION TWO

9. (a) Using appropriate illustrations, describe how a 4-stroke spark ignition internal combustion engine functions (12 marks)
(b) Outline the dimensions used to provide the size of wheels (3 marks)
10. Briefly explain how the water cooling system of vehicular machinery works (15 marks)
11. Briefly explain the servicing/maintenance aspects any farmer should know and do on farm machinery and equipment (15 marks)

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