



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**FACULTY OF AGRICULTURAL SCIENCES**  
**DEPARTMENT OF CROP AND SOIL SCIENCES**  
**SEPTEMBER 2020\_1 EXAMINATION**

**COURSE CODE: AGM314**

**COURSE TITLE: INTRODUCTION TO FARM MECHANIZATION**

**TOTAL CREDIT UNITS: 3**

**INSTRUCTIONS:** Answer FOUR questions in all. Question one is compulsory (25 marks).  
The rest carry 15 marks each.

**TIME: 2.30 Minutes**

- 1
  - a. What are the four cycles of events required to turn heat into motion in an Internal Combustion Engine? (12 marks)
  - b. State the difference between a Petrol and a Diesel engine. (8 marks)
  - c. Enumerate five advantages of machines in agriculture. (5 marks)
- 2
  - a. List four advantages of Hay conditioning. (8 marks)
  - b. List four important qualities a farmer needs when selecting a farm machinery. (7 marks)
- 3
  - a. Differentiate between Primary and Secondary tillage. (11 marks)
  - b. List four purposes of tillage. (4 marks)
- 4
  - a. Name five (5) basic engine parts. (5 marks)
  - b. List four basic terms associated with the use of machines. (10 marks)
5. Define the following terms (a) horse power, (b) Draw bar power, (c) PTO power (d) brake power. (15 marks)
- 6
  - a. Differentiate between the power steering of a tractor and manual steering. (8 marks)
  - b. Mention two methods power can be transmitted for agricultural work. (7 marks)