



NATIONAL OPEN UNIVERSITY OF NIGERIA
FACULTY OF AGRICULTURAL SCIENCES
DEPARTMENT OF CROP AND SOIL SCIENCES
2025_2 EXAMINATIONS

COURSE TITLE: FARM POWER AND AGRIC. MECHANIZATION (2CU)

COURSE CODE: CRP 312

TOTAL SCORE: 70 MARKS

TIME ALLOWED: 2hours

INSTRUCTION: Answer *THREE* Questions in All. *Question 1* is compulsory (30marks) and any *TWO* questions (20 marks each)

QUESTIONS

1.

- a. **Define agricultural mechanization and explain its importance in the context of African agriculture. (15 marks)**
- b. **Describe the components and working principle of a mechanical thresher. How does it improve the efficiency of threshing compared to traditional manual methods? (5 marks)**
- c. **Discuss the major constraints that have limited agricultural development in Africa. (10 marks)**

2.

- a. **Explain how animal-drawn mowers differ from tractor-powered mowers in terms of their power source and operation. (10 marks)**
- b. **Describe the term "mechanization" in the context of agriculture and list the different power sources it may involve. (10 marks)**

3.

- a. **Compare and contrast the use of animal-drawn reapers and tractor-mounted reapers, highlighting the differences in their operation and applications. (10 marks)**
- b. **Outline the main objectives of agricultural mechanization according to FAO and UNIDO (2008). (10 marks)**

4.

- a. **Discuss the evolution of agricultural tractor usage in West Africa, particularly focusing on the differences in usage per hectare among countries. (10 marks)**
- b. **Differentiate between sprayers and dusters in terms of their use, components, and operation. (10 marks)**