



**NATIONAL OPEN UNIVERSITY OF NIGERIA
FACULTY OF AGRICULTURAL SCIENCES
DEPARTMENT OF ANIMAL SCIENCE AND FISHERIES**

COURSE CODE: ANP 512

COURSE TITLE: PASTURE AND RANGE MANAGEMENT

CREDIT UNIT: 2 CU

TOTAL SCORE: 70 MARKS

TIME ALLOWED: 2 Hours

INSTRUCTIONS: ANSWER QUESTION 1 (25 MARKS) AND ANY OTHER THREE (15 MARKS EACH)

- Q1
- a Define Range management. **2 marks**
 - b Differentiate between legume and shrubs. **2 marks**
 - c Write short notes on the following types of vegetation
 - i Sahel savanna **3 marks**
 - ii Montane **2 marks**
 - iii Mangrove zone **2 marks**
 - d Differentiate between primary and secondary introduction of plants. **5 marks**
 - e State the tips to be considered for pasture maintenance for the months of June and July. **9 marks**
- Q2
- a Explain “cut and weigh” and “falling plate” as a method of forage yield determination. **8 marks**
 - b Define the following terms:
 - i Grazing system
 - ii Forage
 - iii Range condition
 - iv Paddock
 - v Forb **7 marks**
- Q3
- Write short notes on the following methods of plant breeding
 - I Marker-assisted breeding **5 marks**
 - Ii Mating systems **5 marks**
 - Iii Double Haploid breeding **5 marks**
- Q4
- Explain the following as factors to be considered when establishing a pasture
 - i Soil fertility **5 marks**
 - ii Seedbed preparation **5 marks**
 - iii Specie selection **5 marks**
- Q5
- Discuss in detail the phases of silage fermentation. **15 marks**
- Q6 i
- State the key principles in developing a grazing plan. **9 marks**

Q6 ii Explain “**Increasing usability of range**” as a major phases of scientific range management. **6 marks**