COURSE CODE: ANP 502
COURSE TITLE: RUMINANT NUTRITION
CREDIT UNIT: 2 CU
TOTAL SCORE: 70 MARKS
TIME ALLOWED: 2 Hours
INSTRUCTIONS: ATTEMPT QUESTION 1 (30 MARKS) AND ANSWER ANY OTHER
TWO (20 MARKS EACH)

Q1.
Provide a detailed explanation of the following microorganisms, focusing on the specific feed nutrients they degrade and their roles in ruminant digestion:
(a) Amylolytic bacteria. *(10 marks)*
(b) Fibrolytic bacteria, fungi, and protozoa. *(10 marks)*
(c) Proteolytic bacteria. *(10 marks)*

Q2.
Write concise notes on the following topics, with emphasis on their processes and importance in ruminant metabolism:
(i) Ruminant protein degradation. *(8 marks)*
(ii) Metabolism of urea. *(8 marks)*
(iii) Deamination. *(4 marks)*

Q3.
Discuss in detail the various factors affecting the digestibility coefficients in ruminant animals. *(20 marks)*

Q4.
(a) Explain the characteristics of ideal feed additives. *(10 marks)*
(b) Enumerate and describe the common feed additives you are familiar with, highlighting their functions and benefits in livestock nutrition. *(10 marks)*