DATE: 4ᵀᴴ DECEMBER, 2019   **TIME: 2:00 PM – 4:00 PM**

INSTRUCTIONS:
- Answer question **ONE (compulsory)** and any other **TWO** questions

QUESTION ONE
- (a) Define the following terms   (4 marks)
    - i. Production ration
    - ii. Breed
    - iii. Ruminant plus animal
    - iv. Ration
- (b) State FOUR factors that should be considered in construction of a dairy unit (4 marks)
- (c) Name THREE breeds of camel   (3 marks)
- (d) Differentiate between Agrosilvipastoral system and Agrosilvicultural systems   (4 marks)
- (e) List FIVE advantages of zero grazing unit   (5 marks)
- (f) Explain the role of ruminant animals in the national economy and households   (10 marks)

QUESTION TWO
- (a) State THREE reasons for studying livestock production system   (3 marks)
- (b) Discuss the factors that should be considered in cattle breed selection   (7 marks)
- (c) Write short notes on the following ruminant production systems   (10 marks)
    - i. Intensive systems
    - ii. Extensive system

QUESTION THREE
- (a) Differentiate between transhumance and nomadic systems   (4 marks)
- (b) Discuss potential risks of keeping ruminant animals   (6 marks)
- (c) Name TWO breeds of each of the following ruminant animals, dairy cattle, goat and sheep   (6 marks)
- (d) Discuss nutritional benefits of camel milk   (4 marks)

QUESTION FOUR
- (a) Discuss the nutritional and economic importance of ruminant animals   (10 marks)
- (b) List down TWO products obtained from each of the following ruminant animals   (6 marks)
    - i. Cattle
    - ii. Goat
    - iii. Sheep
- (c) Discuss the strategies for improving high milk production in dairy cattle   (4 marks)

QUESTION FIVE
- (a) Discuss the advantages of keeping ruminant animals   (10 marks)
- (b) Outline the factors that affect intake by ruminant animals   (10 marks)