



# MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

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## University Examinations 2024/2025

### SECOND YEAR FIRST SEMESTER EXAMINATION FOR CERTIFICATE IN ANIMAL HEALTH AND PRODUCTION

#### AAP 1215: LIVESTOCK PRODUCTION SYSTEMS, RUMINANTS

DATE: JANUARY 2025

TIME: 1½ HOURS

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#### INSTRUCTIONS:

Answer question **ONE** and any other **TWO** questions

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#### QUESTION ONE (30 MARKS)

- a) Define production system (2 Marks)
- b) Explain three types of production systems (6 Marks)
- c) Give two ways used in genetic improvement (2 Marks)
- d) What is estrus cycle in ruminants (3 Marks)
- e) Identify three main common reproductive disorders (3 Marks)
- f) Identify two vitamins, their functions, deficiency signs and symptoms sources in dairy production (6 Marks)
- g) Explain two methods of intensive livestock production system (4 Marks)
- h) Give four signs of estrus in ruminants (4 Marks)

#### QUESTION TWO (15 MARKS)

- a) Discuss four methods used in heat detection in cows (8 Marks)
- b) Highlight functions and deficiency of both calcium and phosphorus (7 Marks)

**QUESTION THREE (15 MARKS)**

- a) Discuss five advantages of semi intensive systems (10 Marks)
- b) Highlight five function of lipids in dairy cattle (5 Marks)

**QUESTION EOUR (15 MARKS)**

- a) Describe anthrax disease based on causative agent, signs and symptoms, treatment and control (10 Marks)
- b) Give five signs of parturition in camels (5 Marks)