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University Examinations 2024/2025

SECOND YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR
OF SCIENCE IN ANIMAL HEALTH AND PRODUCTION

SBT 3250: GENERAL GENETICS

DATE: JANUARY 2025

TIME: 2 HOURS

INSTRUCTIONS: Answer question *one* and any other *two* questions

QUESTION ONE (30 MARKS)

- a) Describe the types of crossing over (4 marks)
- b) Explain Mendelian dihybrid inheritance (6 marks)
- c) Outline the various forms of gene interactions (4 marks)
- d) Explain two ways genetic variation is maintained in organisms (6 marks)
- e) Explain the key focus of genetic studies (6 marks)
- f) Explain the key contribution of Mendel's research to genetics (4 marks)

QUESTION TWO (20 MARKS)

Discuss the classes of epistasis gene interaction

QUESTION THREE (20 MARKS)

Discuss Gene mapping methods

QUESTION FOUR (20 MARKS)

Discuss the mitotic cell division