"Investing in Africa's future"

COLLEGE OF HEALTH, AGRICULTURE & NATURAL SCIENCES

NAAS 406: ANIMAL BREEDING

FIRST SEMESTER FINAL EXAMINATIONS SESSION

NOVEMBER 2021

LECTURER: MR. P. B. MUVHURINGI

DURATION: 5 HRS

INSTRUCTIONS

Answer One question. Each question carries 100 marks

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1. a. Discuss the genetic improvement programmes that are currently being run in
    Zimbabwe.   [25]

    b.   Discuss the internal and external environmental factors that affect the phenotypic
    expression of genes.   [25]

    c.   What advice will you give to a farmer on the merits and demerits of artificial
    insemination?   [25]

    d.   Discuss the various selection schemes which are used in livestock breeding in
    Zimbabwe   [25]

2. a. Critically compare and contrast the different types of livestock selection schemes that
    can be utilised for dairy production. Which scheme would you recommend for the small
    scale dairy development programme? Justify your choice.   [50]

    b.   Discuss the traits of economic importance for a livestock species of your choice [15]

    c.   Give the advantages and disadvantages of each of the following:
        i.   Artificial insemination (AI).   [15]
        ii.   Multiple ovulation and embryo transfer (MOET).   [10]
        iii.   Embryo sexing.   [10]

3. a. Compare and contrast qualitative and quantitative characters in inheritance.   [25]

    b. What are the merits and demerits of artificial insemination in beef production? [25]

    c. What are the merits and demerits of recombinant DNA technology in animals? [25]

    d. Compare and contrast progeny testing and performance testing.   [12]

    e. Compare and contrast pedigree selection and sib testing.   [13]

End of Exam Paper