NATIONAL OPEN UNIVERSITY OF NIGERIA
University Village, Nnamdi Azikiwe Expressway, Plot 91, Cadastral Zone, Jabi, Abuja
Faculty of Agricultural Sciences
2020_2 Examination

Course Title: Elementary Topics in Animal Breeding
Course Code: ANP 307 ….
Credit Unit: ….2……
Total Score: 70……Marks
Time Allowed: .2……Hours
INSTRUCTION:
Answer Compulsory question 1 (25 marks) and any 3 questions (15 marks each)

Question one

a) Give the meaning of Sex-limited genes (1mark)
b) List two (2) examples of Sex-limited genes (1mark)
c)Give the meaning of Sex-linked genes (2 marks)
d) State two (2) importance of Repeatability (2marks)
e) Highlight the broad sense and narrow sense definition of heritability (2 marks)
f) Briefly explain five (5) ancient theories put forward at different times by philosophers (10 marks)
g) With the aid of a diagram, write the genetic and phenotypic ratios of monohybrid cross between one heterozygote tall plant (Tt) and one homozygote short plant (tt) (7 marks)

Question Two

a) Outline the pattern of inheritance of quantitative traits (6marks)
b) List three (3) examples of quantitative traits and three (3) qualitative traits in animals (3marks)
c)State six (6) goals of animal breeding (6marks)

Question Three

a) Explain Interactions between heredity and Environment variation (2marks)
b) Give the definition of variance (1 mark)
c)Describe Environment Source of variation 2 marks
d)Mention two (2) significance of Environment Source of variation (2 marks)
e) Explain Genetic Source of Variation (4 marks)

f) Identify four (4) features of discontinuous variation (4 marks)

Question four

a) Discuss the two (2) laws of Mendel (6 marks)
b) Give three (3) reasons why Robert Bakewell is considered the founder of systematic modern breeding (3 marks)
c) Summarise the postulations of Mendel's work on pea plants (4marks)
d)Mention two (2) drawback of Bakewell breeding programme (2 marks)

Question five

a) Differentiate between lethal and semi lethal genes (6 marks)
b) Outline three (3) possible measures for elimination of lethal or detrimental genes in an animal population (3marks)
c)Distinguish between dominant and recessive genes (6 marks)

Question six

a) Explain five (5) limitations in breeding animals for disease resistance (10 marks)
b) Outline (3) benefits of animal breeding for disease resistance (3mark)
c)State two (2) requirements for use of MAS in practice (2 marks)