



NATIONAL OPEN UNIVERSITY OF NIGERIA

University Village, Nnamdi Azikiwe Expressway, Plot 91, Cadastral Zone, Jabi, Abuja

Faculty of Agricultural Sciences

First Semester POP Questions 2021_1

Course Title: Analytical Technique for Animal Production II

Course Code: ANP 309

Credit Unit: 2

Total Score: 70 Marks

Time Allowed: 2 Hours

INSTRUCTION:

Answer Compulsory question 1 (30 marks) and any 2 questions (20 marks each)

Question one

- a) A cattle farmer prefers to allow his cattle to mate naturally enlighten him on five (5) benefits of Artificial Insemination (AI) (5 marks)
- b) Identify any five (5) methods for determining semen concentration (5 marks)
- c) Explain the Gloved-hand technique of semen collection (5 marks)
- d) Outline five (5) properties of enzymes (5 marks)
- e) Mention five (5) materials required purification of enzymes (5 marks)
- f) Explain the differences between true digestibility and apparent digestibility (5 marks)

Question two

- a) Explain to Mr Bala a livestock farmer the factors he has to consider for effective semen collection in Artificial Insemination (AI). (15 marks)
- b) Mention five (5) factors affecting Semen concentration. (5 marks)

Question three

- a) Discuss the physical factors to be considered during semen evaluation (10 marks)
- b) Highlight the merits and limitations of in vitro digestibility trials (4 marks)
- c) The Artificial vagina method is one of the methods of semen collection explain to a livestock farmer how it works. (6 marks)

Question four

- a) Critically examine three (3) factors that can influence fertility during insemination (12marks)
- b) Explain the importance radioisotopes in soil fertility studies. (8 marks)