TECHNICAL UNIVERSITY OF MOMBASA

UNIVERSITY EXAMINATION FOR:

BACHELOR OF TECHNOLOGY IN FOOD SCIENCE AND QUALITY ASSURANCE (BSFQA

13S & BSFQA 14S2

AFS 4102: PRINCIPLES OF ANIMAL PRODUCTION

END OF SEMESTER EXAMINATION

SERIES: APRIL 2016

TIME: 2 hours HOURS

DATE: Pick Date 05-2016

Instructions to Candidates
You should have the following for this examination
   -Answer Booklet, examination pass and student ID
This paper consists of Choose No questions. Attempt Choose instruction.
Do not write on the question paper.

Question one.
a) Introduction to animal breeding:
    i) Define *Animal breeding*   1pt
    ii) Explain briefly selection and mating in animal science   4pt

b) Animal Products and Animal Nutrition:
    i) List four sugars found in Honey   2pt
    ii) Differentiate between cheese and yogurt   2pt
    iii) Name the Vitamin that depends on the sun for its synthesis   1pt

c) Animal Reproduction
    i) Define Parturition   *1pt*
    ii) Describe two roles of Testosterone in Male reproduction   *2pt*
    iii) Explain the concept of Clip, Dip, Strip and Sip in Calf management   2pt

d) Animal science and breeds of livestock
    i) Classify the animals according to their species   2pt

1) Boran
2) German Shepherd
3) Red Leghorn
4) Chinchilla

ii) Describe the major uses of the following livestock   3pt
- Hereford
- Merino
- German Shepherd

e) Animal Health

i) Differentiate between culling and quarantine in disease control   2pt
- Culling is removal of sick animals from the rest (1pt)
- Quarantine is isolation of diseased animals and area under infection (1 pt)

ii) Give three clinical signs of Rif Valle Fever   3pt
- Fever, Abortions and death of offspring (1 pt each)

f) General questions

i) Explain why Castration is applied in beef cattle   2pt
(ii) Describe Zoonosis and two transmission risks factors to humans   3pt
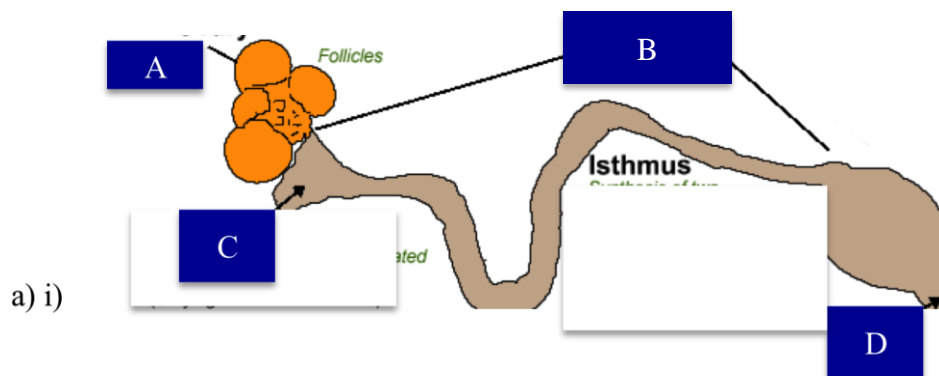
Question two.

Animal Breeding

a) Give the major differences between Mitosis and meiosis   5pt

b) A company has two Dairy Cows, in a herd producing 1000 kgs of milk. Given the data below and heritability of 0.5, which mating system will you recommend?   15pt

i) System one: Cow A = 1100kgs mated to Bull with 1500kg
ii) System two: Cow B =900kgs Mated to Bull with 2000kgs

Question three.

Animal Reproduction

a) i)

Name the animal with the above drawn reproductive system and describe the functions of the parts A, B, C and D   9pt

b) i) Differentiate between functions of the Cervix and Uterus   4pt
ii) Differentiate the functions of the Vas deference and Epididymis in relation to
Artificial Insemination (A.I) giving the advantages of A.I over natural mating in
Livestock   *7pt*

Question four.
Animal Health
a) i) Describe three common zoonosis that affect cattle giving at least one symptom of
each   6pt
ii) Explain the importance of vaccination and how it works   4pt

b) (i) I want to avoid Zoonosis, discuss how you will advise me   5pt
(ii) Differentiate between Toxoplasmosis and Nipah Virus giving the common host of
each   5pt

Question five.
Animal Nutrition and products
   a) Highlight at four primary uses of each given livestock
      10pt

Species	*Primary Uses*
Cattle	
Sheep	
Camels, Yaks, Llamas	
Chickens, Turkey, Ducks	
Horses, Donkeys, Mules	

   b) Discuss six meat types describing their sources and why Marbling and Gristle
      are traits of importance in meat marketing   10pt