

FEDERAL UNIVERSITY OF TECHNOLOGY, OWERRI
DEPARTMENT OF ANIMAL SCIENCE AND TECHNOLOGY
2009/2010 HARMATTAN SEMESTER EXAMINATIONS

AST 407: REPRODUCTIVE PHYSIOLOGY AND ENDOCRINOLOGY OF LIVESTOCK
TIME ALLOWED: 3HRS

INSTRUCTION: ANSWER ALL QUESTIONS IN SECTION A AND ANY OTHER 4 QUESTIONS IN SECTION B

SECTION A

1. The primary sex organ in male farm animal is called -----
2. The single intromittent organ of all mammal which facilitate the transfer of semen from the male to the female is -----
3. Ovary is suspended into the abdominal cavity by a double fold of membrane called -----
4. The ovary receives blood and nerve supply through the -----
5. There are four types of uterus in farm animals -----6)-----7)-----8)-----
9. The term ----- refer to the processes involved in the formation and development of female sex cells (ova)
10. ----- is the process by which the male primary sex cells are produced?
11. During spermatogenesis, the ----- in the seminiferous tubules of the testes produce spermatozoa.
12. ----- involves the metamorphosis of the spermatids into spermatozoa without further division.
13. The Oviduct of ewe is a convoluted tube which can be divided into four parts: ----- 14)-----
----15)-----16)-----
17. The following accessory sex glands 17) -----18) -----19) ----- and 20) -----
produces fluids that combine with the spermatozoa to form the semen.
21. The urethra can be classified into the following parts histologically 21)-----22)----- 23)-----

24. The ----- is a thin sac or pouch of skin, muscle, elastic and collagenous connective tissue on which the testis lie.
25. The uterus receives its blood and verve supply through the ----- which is a continuation of the broad ligament.
26. Anatomically, the uterus consists of three layers namely -----27)-----and 28)-----
29. The outer covering of the testis is called -----
30. The portion of the tubular genitalia located within the pelvis and lies between the cervix and the vulva is termed -----
31. Examples of steroid hormones include -----, -----, -----, and -----.
32. State four examples of protein hormones -----, -----, -----, and -----.
33. Hormones secretion is influenced by -----, -----, -----, and -----.
34. Four examples of trophic hormones are -----, -----, ----- and -----.
35. Adrenal gland produces the following hormones -----, -----, ----- and -----.
36. Insulin is produced at ----- and its functions include ----- and -----
37. Production of breast milk is a function of ----- hormone.
38. Some hormones are used medically to treat certain diseases, example -----, -----, and -----

39. The gonads of male and female mammals secrete the following hormones -----, -----, -----
, and -----.
40. Functions of progesterone include -----, ----- and -----.

SECTION B

Write short notes on the following:

- a. Spermatogenesis
- b. Spermiogenesis
- c. Oogenesis
- d. Graafian follicles
- e. Ovulation

With the aid of a labeled diagram ONLY discuss the male reproductive system of a named farm animal

i. Discuss briefly the role of testis to sperm production.

. Differentiate between the following physiological terms

Prepuce and Scrotum

i. Testis and Ovary

ii. Sperm and Ovum

v. Simplex and Duplex

v. Spermiogenesis and Spermatocytogenesis.

4i. Make a well labeled diagram of a typical structure of a sperm cell of a named farm animal.

4iii. The temperature of the scrotum is always lower than the body temperature. Explain?

5a. Enumerate the effects of hormones on the body of vertebrate animals – 5marks

5b List the hormones produced by the anterior pituitary gland – 5marks.

6a. The posterior pituitary stores and releases several hormones. Discuss them, indicating their target cells (organ) and actions. – 8marks.

6b. What are these hormones? – 2marks.