

FEDERAL UNIVERSITY OF TECHNOLOGY, OWERRI
DEPARTMENT OF ANIMAL SCIENCE AND TECHNOLOGY
2008/2009 HARMATTAN SEMESTER EXAMINATIONS

AST 407: REPRODUCTIVE PHYSIOLOGY & ENDOCRINOLOGY OF LIVESTOCK

INSTRUCTION: ANSWER SECTION A AND ANY 3 QUESTIONS FROM SECTION B.

TIME ALLOWED: 3HRS.

SECTION A

1. The manipulation of the estrus cycle so that females in a herd express estrus at approximately the same time is called -----
2. Hormonal receptors are large proteins which are usually located in -----
3. Glucagon raises blood sugar levels whereas -----lowers blood sugar levels.
4. Embryologically, in domestic animals, the testes are located in an area caudal to the kidney. True or False.
5. Without regulation and co-ordination, the chemistry of living cells would be chaotic, and life in its present form would be impossible. True or False.
6. The epididymis is divided into ----- 7) ----- 8) -----
9. ----- is the process by which the male primary sex cells are produced in rabbits.
10. Spermiogenesis is the metamorphosis of the spermatids into ----- without further divisions.
11. The term ----- is referred to as the processes involved in the formation and the development of the female sex cells.
12. Histologically, the ovary is made up of the two parts namely ----- and stroma.
13. The outer zone of the stroma where ovarian follicles at various stages of development are located is termed -----
14. The uterus and ovary receives its blood supply and nerve supply via -----
15. The cervix is a sphincter that separates the ----- from the vagina.
16. A condition whereby the testes fail to descend into the scrotum is termed -----
17. The cremaster muscle and ----- contract to pull the testicles closer to the abdominal cavity in cold weather.
18. An animal within complete cryptorchidism is usually sterile because of absence of spermatogenesis. True or False.
19. The secretion of ----- help to dilute the semen and thus help to give it volume for transport.
20. The bicornuate has a large uterine body formed by fusing of 2 prominent uterine horns which remain separate for the greater part of their length. True or False.

The hormone that influence mammary function in the domestic animals are 21) -----
 ---22) -----23) -----24) -----
 The physiological term for milk secretion is 25) ----- while
 maintenance of lactation is termed 26) ----- . The factors involved in
 transforming the relaxed uterine tissue to a contractile one during parturition are 27) -
 -----28) ----- 29) ----- . The
 essential components of the birth are 30) ----- 31) ----- 32) -----
 ----- . The fetal membranes make up the placenta are differentiated into 33) -----
 -----34) ----- 35) ----- 36) ----- .
 The point of exchange between the dam and fetus in the allantochorionic placenta is
 called 37) ----- while the maternal component of this structure is
 called 38) ----- . From the 16-cell stage, the embryo is called 39) -----
 ----- . The major hormone of pregnancies in domestic animals is 40) -----

SECTION B

1. Write a detailed essay on the 1st stage of labor.

- 2a. Describe embryonic attachment in domestic animals
- 2b. Detail the various methods you could use to diagnose pregnancy in domestic animals.

3. Write short notes on
 - a. Milk let down
 - b. Cleavage
 - c. Gastrulation
 - d. Third stage of labor.

4. Write short notes on the following terms:
 - i. Estrus synchronization
 - ii. Super-ovulation
 - iii. Embryo transfer
 - iv. Spermatogenesis
 - v. Graffin follicles.

- 5i. Make a labeled diagram of the male reproduction organ of a named farm animal and discuss the contribution of the various parts to spermatogenesis
- ii. Differentiate between estrus and estrus cycle.
- iii. List five signs that mark the on set of estrus in sow.