

**B.Sc. ZOOLOGY  
SIXTH SEMESTER  
REPRODUCTIVE BIOLOGY  
BSZ – 603**

( Use Separate Answer Scripts for Objective & Descriptive )

Duration : 3 hrs.

Full Marks : 70

**[ PART-A: Objective ]**

Time : 20 min.


Marks : 20

**Choose the correct answer from the following:**

**1X20=20**

1. Which of these methods of sterilization is permanent?
  - a. Tubal sterilization
  - b. Vasectomy
  - c. Both (a) &(b)
  - d. None of the above
2. Lactogenesis takes place
  - a. During the second half of pregnancy.
  - b. After puberty
  - c. After parturition
  - d. From the first month of pregnancy
3. The precursor to all gonadal steroids is-
  - a. Estradiol
  - b. Cholesterol
  - c. Testosterone
  - d. Progesterone.
4. A glycoprotein layer that acts as a barrier, helps in sperm binding and acrosomal reaction is-
  - a. Cortical granules
  - b. Vitelline membrane
  - c. Zona pellucida
  - d. Amnion
5. ----- is involved in the milk ejection or letdown reflex
  - a. Oxytocin
  - b. Prolactin
  - c. Both a &b
  - d. None of the above
6. Portion of placenta contributed by the embryo is the -
  - a. Chorion
  - b. Yolk sac
  - c. Amnion
  - d. Allantois
7. The structure which implants in the endometrium is termed as -
  - a. Embryo
  - b. Zygote
  - c. Morula
  - d. Blastocyst
8. Zonary placenta is found in-
  - a. Carnivore mammals
  - b. Herbivore mammals
  - c. Both (a) and (b)
  - d. None of the above.
9. The granulosa cells secrete follicular fluid called as-
  - a. Antrum
  - b. Amniotic Fluid
  - c. Lutein
  - d. None of the above

10. The cyclic release of what two hormones promotes breast development?
  - a. HCG and Prolactin
  - b. Estrogen and prolactin
  - c. Progesterone and prolactin
  - d. Estrogen and progesterone
11. Gonadotropic hormone is released by-
  - a. Gonads
  - b. Adenohypophysis
  - c. Germ layers
  - d. Neurohypophysis
12. Spermatogenesis occurs due to interaction of the-
  - a. Hypothalamus
  - b. Leydig cell
  - c. Pituitary gland
  - d. All of the above
13. In male, which cells produce anti- Mullerian hormone?
  - a. Sertoli cells
  - b. Germ cells
  - c. Leydig cells
  - d. Myoid cells
14. SRY gene is responsible for-
  - a. Development of male gonad
  - b. Development of female gonad
  - c. Development of Brain
  - d. Development of Kidney
15. Which of these is the correct sequence in spermatogenesis?
  - a. Spermatocytes - Spermatogonia - Spermatids -Spermatozoa
  - b. Spermatogonia -Spermatocytes- Spermatids- Spermatozoa
  - c. Spermatogonia - Spermatids - Spermatocytes - Spermatozoa
  - d. Spermatocytes - Spermatids - Spermatogonia -Spermatozoa
16. Which of the following controls the functions of sertoli cells?
  - a. ACTH
  - b. FSH
  - c. Estrogen
  - d. Testosterone
17. ----- is a male sex hormone
  - a. Estrogen
  - b. Androgen
  - c. Insulin
  - d. Pheromones
18. The mature spermatozoan are released in the lumen of seminiferous tubules, the process is known as which of the following-
  - a. Spermiation
  - b Spermatogenesis
  - c. Gametogenesis
  - d. Spermiogenesis
19. Which structure in male reproductive system brings the sperm to maturity and stores the sperm cells?
  - a. Prostate gland
  - b. Testes
  - c. Epididymis
  - d. Seminal vesicles
20. Which hormone is secreted by hypothalamus?
  - a. Gonadotropin releasing hormone
  - b. Gonadotropin inhibiting hormone
  - c. Both 'a' and 'b'
  - d. None of the above



**( PART-B : Descriptive )**

Time : 2 hrs. 40 min.

Marks : 50

*[ Answer question no.1 & any four (4) from the rest ]*

1. Describe about development of Mullerian and Wolffian duct with labelled diagram. 8+2=10
2. Draw in details the structure of ovary and explain the process of folliculogenesis. 3+7=10
3. Discuss about the different IVF techniques. Differentiate between ZIFT and GIFT 8+2=10
4. What is parturition? Mention the role different hormones that help in parturition and lactation. 2+8=10
5. Explain the structure of placenta with diagram. What is the endocrinal role of placenta? 5+5=10
6. Write short notes on-
  - a. Blood testes barrier 5+5=10
  - b. System cell renewal
7. Explain external genitalia formation in male and female with suitable diagram. 8+2=10
8. Explain about hypothalamo-hypophyseal-gonadal axis and briefly write about gonadotropins 5+5=10

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