

B.Sc. ZOOLOGY
SIXTH SEMESTER [SPECIAL REPEAT]
REPRODUCTIVE BIOLOGY
BSZ-603

SET
A

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

Marks: 20

(Objective)

Choose the correct answer from the following:

1 × 20 = 20

- In hypothalamo-hypophysial pituitary axis, the negative feedback hormone inhibin is produced by.....
 - Leydig cell
 - Sertoli cell
 - Spermatogonium
 - None of the above
- In what circumstances a female body produces a lot of androgen?
 - Adrenal cancer
 - PCOD
 - None
 - Both a and b
- Which one from the following is called spermatogenic stem cell?
 - Myoid cell
 - Sertoli cell
 - Leydig cell
 - Epithelial cell
- The acrosome of sperm having a proteolytic enzyme called as.....
 - Peroxidase
 - Topoisomerase
 - Hyaluronidase
 - Aldolase
- The main connection between the sperm maturation site and the accessory duct is called as.....
 - Seminiferous tubule
 - Rete testis
 - Epididymis
 - Vas deference
- The main difference between the hormone action of protein and steroid hormone is:
 - Permeability of hormone molecule across the cell membrane
 - Type of hormone receptor
 - Presence or absence of second messenger
 - All of the above
- The cell signaling pathway of a virus infected or cancer cell is:
 - Autocrine
 - Paracrine
 - Juxtacrine
 - Endocrine
- R-spondin-1 is a:
 - Female autosomal gene
 - Female sex chromosome gene
 - Male autosomal gene
 - Male sex chromosome gene
- Sry gene located on the:
 - Male autosome
 - Short arm of Y chromosome
 - Centromere of Y chromosome
 - X chromosome

10. The spermatozoa is anchored in the Sertoli cell by the help of:
 - a. Hemi junction
 - b. Tight zonular junction
 - c. Basement membrane
 - d. None of the above
11. Which hormone is primarily responsible for maintaining the corpus luteum during the early stages of pregnancy?
 - a. Estrogen
 - b. Progesterone
 - c. Human chorionic gonadotropin (hCG)
 - d. Luteinizing hormone (LH)
12. During implantation, the blastocyst attaches to the endometrium of the uterus. Which layer of the blastocyst is primarily involved in this attachment?
 - a. Inner cell mass
 - b. Trophoblast
 - c. Blastocoel
 - d. Zona pellucida
13. What does capacitation involve?
 - a. Maturation of spermatozoa within the epididymis
 - b. Activation of enzymes in the acrosome of spermatozoa
 - c. Removal of glycoproteins and cholesterol from the sperm plasma membrane
 - d. Binding of spermatozoa to the zona pellucida of the oocyte
14. Why is the mechanism of action of emergency contraception, often referred to as the "morning-after pill"?
 - a. Inhibiting ovulation
 - b. Preventing implantation of a fertilized egg into the uterus
 - c. Thickening cervical mucus to prevent sperm from reaching the egg
 - d. Blocking the release of gonadotropin hormones
15. How does tubal ligation prevent pregnancy?
 - a. By blocking the release of eggs from the ovaries
 - b. By preventing the sperm from reaching the egg
 - c. By removing the uterus entirely
 - d. By blocking or sealing the fallopian tubes to prevent sperm from fertilizing the egg
16. Which of the following is NOT a common step in the IVF process?
 - a. Ovulation induction
 - b. Retrieval of eggs from the ovaries
 - c. Transfer of embryos into the fallopian tube
 - d. Fertilization of eggs with sperm in a laboratory dish
17. What is the primary function of the zona pellucida in the structure of the ovum?
 - a. It contains enzymes for fertilization
 - b. It provides structural support to the ovum
 - c. It prevents polyspermy
 - d. It produces hormones essential for embryonic development
18. Which maternal hormone is responsible for preventing contractions of the uterine muscles during pregnancy to maintain the placenta's integrity?
 - a. Estrogen
 - b. Progesterone
 - c. Human chorionic gonadotrophin
 - d. Oxytocin

19. Placenta is formed from the union ofand chorion frondosum.
- a. Decidua peritalis
 - b. Decidua basalis
 - c. Decidua frontalis
 - d. None of these
20. The contraceptive option that prevents sperm ,motility and also disables implantation is:
- a. Copper T
 - b. Birth control pills
 - c. Condom
 - d. All of these
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