CHAPTER 1

Human Reproduction

Male Reproductive System

1. Select the correct sequence for transport of sperm cells in male reproductive system. *(2019)*

a. Testis → Epididymis → Vasa efferentia → Rete testis → Inguinal canal → Urethra

b. Seminiferous tubules → Rete testis → Vasa efferentia → Epididymis → Vas deferens → Ejaculatory duct → Urethra → Urethral meatus

c. Seminiferous tubules → Vasa efferentia → Epididymis → Inguinal canal → Urethra

d. Testis → Epididymis → Vasa efferentia → Vas deferens → Ejaculatory duct → Inguinal canal → Urethra → Urethral meatus

2. Which of the following depicts the correct pathway of transport of sperms? *(2016 - II)*

a. Rete testis → Vas deferens → Efferent ductules → Epididymis

b. Efferent ductules → Rete testis → Vas deferens → Epididymis

c. Rete testis → Efferent ductules → Epididymis → Vas deferens

d. Rete testis → Epididymis → Efferent ductules → Vas deferens

3. The shared terminal duct of the reproductive and urinary system in the human male is: *(2015, 14)*

a. Urethra
b. Ureter
c. Vas deferens
d. Vasa efferentia

Female Reproductive System

4. Capacitation occurs in: *(2017-Delhi)*

a. Rete testis
b. Epididymis
c. Vas deferens
d. Female Reproductive tract

5. Capacitation refers to changes in the: *(2015)*

a. Ovum after fertilisation
b. Sperm after fertilisation
c. Sperm before fertilisation
d. Ovum before fertilisation

Gametogenesis

6. Which of the following statements are true for spermatogenesis but do not hold true for Oogensis? *(2022)*

A. It results in the formation of haploid gametes
B. Differentiation of gamete occurs after the completion of meiosis
C. Meiosis occurs continuously in a mitotically dividing stem cell population
D. It is controlled by the Luteinising hormone (LH) and Follicle Stimulating Hormone (FSH) secreted by the anterior pituitary
E. It is initiated at puberty

Choose the most appropriate answer from the options given below.

a. B, C and E only
b. C and E only
c. B and C only
d. B, D and E only

7. At which stage of life the oogenesis process is initiated? *(2022)*

a. Adult
b. Puberty
c. Embryonic development stage
d. Birth

8. Given below are two statements: *(2022)*

Statement I: The release of sperms into the seminiferous tubules is called spermiation

Statement II: Spermiogenesis is the process of formation of sperms from spermatogonia

In the light of the above statements, choose the most appropriate answer from the options given below.

a. Statement I is incorrect but Statement II is correct
b. Both Statement I and Statement II are correct
c. Both statement I and statement II are incorrect
d. Statement I is correct but Statement II is incorrect

9. Meiotic division of the secondary oocyte is completed: *(2020)*

a. At the time of copulation
b. After zygote formation
c. At the time of fusion of a sperm with an ovum
d. Prior to ovulation

10. Select the correct option of haploid cells from the following groups: *(2020-Covid)*

a. Secondary spermatocyte, First polar body, Ovum
b. Spermatogonia, Primary spermatocyte, Spermatid
c. Primary spermatocyte, Secondary spermatocyte, Second polar body
d. Primary oocyte, Secondary oocyte, Spermatid

11. Extrusion of second polar body from egg nucleus occurs: *(2019)*

a. After entry of sperm but before fertilisation
b. After fertilisation
c. Before entry of sperm into ovum
d. Simultaneously with first cleavage

12. The difference between spermiogenesis and spermiation is: *(2018)*

a. In spermiogenesis spermatids are formed, while in spermiation spermatozoa are formed.
b. In spermiogenesis spermatozoa are formed, while in spermiation spermatids are formed.
c. In spermiogenesis spermatozoa from Sertoli cells are released into the cavity of seminiferous tubules, while in spermiation spermatozoa are formed.
d. In spermiogenesis spermatozoa are formed, while in spermiation spermatozoa are released from Sertoli cells into the cavity of seminiferous tubules.

13. Which of the following cells during gametogenesis is normally diploid? *(2015)*

a. Spermatogonia
b. Secondary polar body
c. Primary polar body
d. Spermatid

14. What is the correct sequence of sperm formation? *(2013)*

a. Spermatogonia, Spermatocyte, Spermatid, Spermatozoa
b. Spermatid, Spermatocyte, Spermatogonia, Spermatozoa
c. Spermatogonia, Spermatocyte, Spermatozoa, Spermatid
d. Spermatogonia, Spermatozoa, Spermatocyte, Spermatid

Menstrual Cycle

15. Which of the following hormone levels will cause release of ovum (ovulation) from the graffian follicle? *(2020)*

a. High concentration of Progesterone
b. Low concentration of LH
c. Low concentration of FSH
d. High concentration of Estrogen

16. A temporary endocrine gland in the human body is: *(2017-Delhi)*

a. Pineal gland
b. Corpus cardiacum
c. Corpus luteum
d. Corpus allatum

17. Changes in GnRH pulse frequency in females is controlled by circulating levels of: *(2016 - I)*

a. Estrogen and progesterone
b. Estrogen and inhibin
c. Progesterone only
d. Progesterone and inhibin

18. Which of the following events is not associated with ovulation in human female? *(2015 Re)*

a. Full development of Graafian follicle
b. Release of secondary oocyte
c. LH surge
d. Decrease in estradiol

19. Menstrual flow occurs due to lack of: *(2013)*

a. Vasopressin
b. Progesterone
c. FSH
d. Oxytocin

Fertilisation and Implantation & Pregnancy and Embryonic Development

20. Receptors for sperm binding in mammals are present on: *(2021)*

a. Vitelline membrane
b. Perivitelline space
c. Zona pellucida
d. Corona radiata

21. Which of the following secretes the hormone, relaxin during the later phase of pregnancy? *(2021)*

a. Corpus luteum
b. Foetus
c. Uterus
d. Graafian follicle

22. In human beings, at the end of 12 weeks (first trimester) of pregnancy, the following is observed: *(2020-Covid)*

a. Most of the major organ systems are formed
b. The head is covered with fine hair
c. Movement of the foetus
d. Eyelids and eyelashes are formed

23. Hormones secreted by the placenta to maintain pregnancy are: *(2018)*

a. hCG, hPL, progestogens, prolactin
b. hCG, hPL, estrogens, relaxin, oxytocin
c. hCG, hPL, progestogens, estrogens
d. hCG, progestogens, estrogens, glucocorticoids

24. The amnion of mammalian embryo is derived from *(2018)*

a. Ectoderm and mesoderm
b. Endoderm and mesoderm
c. Mesoderm and trophoblast
d. Ectoderm and endoderm

25. Several hormones like hCG, hPL, estrogen, progesterone are produced by: *(2016 - II)*

a. Fallopian tube
b. Pituitary
c. Ovary
d. Placenta

26. Identify the correct statement on inhibin: *(2016 - II)*

a. Inhibits the secretion of LH, FSH and Prolactin
b. Is produced by granulose cells in ovary and inhibits the secretion of FSH
c. Is produced by granulose cells in ovary and inhibits the secretion of LH
d. Is produced by nurse cells in testes and inhibits the secretion of LH

27. Fertilisation in humans is practically feasible only if: *(2016 - I)*

a. The sperms are transported into vagina just after the release of ovum in fallopian tube
b. The ovum and sperms are transported simultaneously to ampullary - isthmic junction of the fallopian tube
c. The ovum and sperms are transported simultaneously to ampullary - isthmic junction of the cervix
d. The sperms are transported into cervix within 48 hrs of release of ovum in uterus

28. In human females, meiosis-II in not complete until *(2015 Re)*

a. Fertilisation
b. Uterine implantation
c. Birth
d. Puberty

29. Which of the following layers in an antral follicle is acelluar? *(2015 Re)*

a. Theca interna
b. Stroma
c. Zona pellucida
d. Granulosa

30. Select the correct option describing gonadotropin activity in a normal pregnant female: *(2014)*

a. High level of hCG stimulates the thickening of endometrium
b. High level of FSH and LH stimulates the thickening of endometrium
c. High level of FSH and LH facilitate implantation of the embryo
d. High level of hCG stimulates the synthesis of estrogen and progesterone

Parturition and Lactation

31. Which of these is not an important component of initiation of parturition in humans? *(2021)*

a. Synthesis of prostaglandins
b. Release of Oxytocin
c. Release of Prolactin
d. Increase in estrogen and progesterone ratio

32. Which of these is not an important component of initiation of parturition in humans? *(2015)*

a. Release of oxytocin
b. Release of prolactin
c. Increase in estrogen and progesterone ratio
d. Synthesis of prostaglandins

Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
b	c	a	d	c	a	c	c	c	a	a	d	a	a	d	c	a
18	19	20	21	22	23	24	25	26	27	28	29	30	31	32		
d	b	c	a	a	c	a	d	b	b	a	c	d	c	b		