

PRACTICE QUESTION

- Correct sequence of cell stage in spermatogenesis
 - spermatocytes – spermatids – spermatogonia – spermatozoa
 - spermatogonia – spermatids – spermatocytes – spermatozoa
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 - spermatocytes – spermatogonia – spermatids – spermatozoa

Ans: c. spermatogonia – spermatocytes – spermatids – spermatozoa

- In spermatogenesis the phase of maturation involves
 - The formation of oogonia from the spermatocytes through meiosis
 - The formation of spermatids from primary spermatocytes through meiosis
 - The growth of spermatogonia into primary spermatocytes
 - The formation of spermatogonia from gonocytes through mitosis

Ans: b. the formation of spermatids from primary spermatocytes through meiosis

- Which part of sperm provides energy for its movement?
 - Head
 - Tail
 - Middle piece
 - Acrosome

Ans: c. Middle piece

- What happens during spermatogenesis?
 - mitosis
 - meiosis
 - mitosis and meiosis
 - none of the above

Ans: c. mitosis and meiosis

- Number of spermatozoa a single primary spermatocyte ultimately produces in spermatogenesis is
 - 8
 - 6
 - 4
 - 2

Ans : c. 4

- How many secondary spermatocytes are required to form 400 spermatozoa?
 - 100
 - 200
 - 400
 - 800

Ans : b. 200

- Spermatogenesis is induced by
 - MSH
 - TSH
 - FSH
 - ACTH

Ans : c. FSH

- The lytic enzyme released by sperm is
 - acrosome
 - ligase
 - hyaluronidase
 - None of these

Ans : c. hyaluronidase

- Following fertilization the blastocyst secretes a hormone called?
 - Human Chorionic Gonadotropin
 - Oxytocin
 - FSH
 - LH

Ans : a. Human Chorionic Gonadotropin

- In humans, the placenta is
 - Haemochorial
 - Endothelial
 - Epitheliochorial
 - Syndesmochorial

Ans : a. Haemochorial

- Implantation of blastocyst occurs on
 - 4th day
 - 5th day
 - 6th day
 - 7th day

Ans : d. 7th day

- The central fluid filled cavity of the blastula is known as
 - archenteron
 - blastocoel
 - blastocyst
 - morula

Ans : b. blastocoels

- Genetic identity of a human male is determined by
 - Autosomes
 - Nucleolus
 - Cell organelles
 - Sex chromosomes

Ans : d. Sex chromosomes

- Fertilizin is a chemical substance produced from
 - Mature eggs
 - acrosome
 - Polar bodies
 - Middle piece of sperm

Ans : a. Mature eggs

- Fertilization of ova in human take place in
 - ovary
 - Vagina
 - Fallopian tube
 - Uterus

Ans : c. Fallopian tube

- The morphogenetic movement change the hollow spherical blastula into a
 - Embryonic disc
 - Gastrula
 - Morula
 - Neurula

Ans : b. Gastrula

17. Undifferentiated spermatogenic cells are called
- spermatogonia.
 - primary spermatocytes.
 - secondary spermatocytes.
 - spermatids

Ans : d. spermatogonia.

18. Which of the following cells are diploid?
- secondary oocytes
 - secondary spermatocytes
 - primary spermatocytes
 - Spermatids
19. During spermatogenesis, which of the following undergoes a meiotic division to produce haploid cells?
- Spermatids
 - secondary spermatocytes
 - primary spermatocytes
 - spermatogonia

Ans : c. primary spermatocytes

20. The process of crossing-over, or recombination, of genes occurs during
- meiosis I
 - meiosis II
 - spermiogenesis
 - spermiation

Ans : a. meiosis I

21. Maintenance of the male secondary sex characteristics is the direct responsibility of
- estrogen.
 - testosterone.
 - FSH.
 - progesterone.

Ans : b. testosterone.

22. The first step in oogenesis is
- secondary oocyte divides to form a polar body and an egg cell.
 - primary oocyte divides to form a secondary oocyte and a first polar body.
 - follicle is converted to a corpus luteum.
 - corpus luteum is converted to a corpus albicans.

Ans: b. primary oocyte divides to form a secondary oocyte and a first polar body

23. The cell commonly called the egg, or ovum, is more correctly called
- primary oocyte.
 - secondary oocyte.
 - oogonium.
 - zygote.

Ans : b. secondary oocyte.

24. The first meiotic division in oogenesis occurs
- before ovulation.
 - only if the egg is fertilized.
 - after ovulation.
 - monthly after puberty in response to FSH and LH.

Ans : a. before ovulation.

25. If fertilization does not occur, the corpus luteum
- is expelled into the pelvic cavity.

- begins to secrete low levels of FSH.
- degenerates into the corpus albicans.
- continues to secrete progesterone until the next ovulation.

Ans : c. degenerates into the corpus albicans.

26. Following ovulation, a human egg cell can survive approximately
- 1 hour
 - 12 hours
 - 24 hours
 - 72 hours

Ans : c. 24 hours

27. About the time of ovulation, the anterior pituitary gland releases a relatively large quantity of
- estrogen
 - Progesterone
 - LH
 - Androgen

Ans : c. LH

28. The hormone mainly responsible for the development and maintenance of female secondary sexual characteristics is
- Estrogen
 - Progesterone
 - Androgen E
 - luteinizing hormone

Ans : a. estrogen

29. Fertilization takes place at
- Interstitial
 - Infundbulum
 - Ampulla
 - None of these

Ans : c. Ampulla

30. Which one is produced by mesoderm?
- Spinal cord and notochord
 - Heart and notochord
 - Brain and notochord
 - Heart and brain

Ans : b. Heart and notochord

31. The mesoderm gives rise to all the following structures in the fully developed fetus, EXCEPT
- Nervous system
 - Muscular system
 - Gonads
 - Circulatory system

Ans : c. gonads

32. Which test is found positive during fertility period of menstrual cycle?
- Pyroglobulin test
 - Spinnbarkeit test
 - Shick test
 - Ballotement test

Ans : b. Spinnbarkeit test, in which cervical mucus is slippery and can be drawn into a thread when stretched between two fingers.

33. After a sperm has entered on ovum, entry of other sperm is prevented by
- Condensation of the yolk

- b. Development of viteline membrane
- c. Formation of pigment coat
- d. Development of fertilization membrane

Ans : d. Development of fertilization membrane

34. Gonads develop from embryonic
- a. Ectoderm
 - b. Both mesoderm and endoderm
 - c. Endoderm
 - d. Mesoderm

Ans : d. Mesoderm

35. In development, nervous system is
- a. Endomesodermal
 - b. Ectodermal
 - c. Endodermal
 - d. Ectomesodermal

Ans : b. Ectodermal

36. Which of the following is the location where fertilization occurs?
- a. ovaries
 - b. vagina
 - c. uterus
 - d. fallopian tubes

Ans : d. fallopian tubes

37. Where does spermatogenesis occur?
- a. seminiferous tubules
 - b. corpus spongiosoma
 - c. prostate gland
 - d. scrotum

Ans : a. seminiferous tubules

38. Which of the following develops into: bone, connective tissue, blood, and the spleen?
- a. notochord
 - b. endoderm
 - c. mesoderm
 - d. ectoderm

Ans : c. mesoderm

39. Which of the following is not a germ layer during the 3rd week of development?
- a. mesoderm
 - b. ectoderm
 - c. endoderm
 - d. exoderm

Ans : d. exoderm

40. Ovulation occurs during which of the following phases?
- a. menstrual
 - b. secretory
 - c. proliferative
 - d. follicle

Ans : c. proliferative

41. Following fertilization the blastocyst secretes a hormone called?
- a. human chorionic gonadotropin
 - b. oxytocin
 - c. FSH
 - d. LH

Ans : a. human chorionic gonadotropin

42. Progesterone is secreted from a female's _____ to help the implanted embryo and continue the pregnancy.

- a. corpus luteum
- b. mesoderm
- c. endoderm
- d. thyroid

Ans : a. corpus luteum