

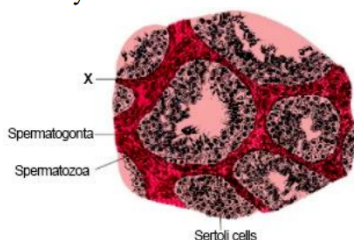
BIOLOGY CLASS 12 BATCH

Human Reproduction

DPP-02

1. Sertoli cells are not associated with
- (1) Androgen synthesis
 - (2) Nourishment of developing sperms
 - (3) Phagocytosis of excess cytoplasm
 - (4) Both (2) & (3)

2. Identify the structure X



- (1) Sertoli Cells
- (2) Spermatogonia
- (3) Interstitial Cells
- (4) Phagocytic cells

3. On sexual arousal, the penis of a male

- (1) Becomes hard and erect
- (2) Receives increased blood flow
- (3) Becomes small and limp

- (4) Both (1) & (2)

4. A primary spermatocyte completes the first meiotic division leading to formation of

- (1) Two unequal, haploid cells called secondary spermatocytes
- (2) Four equal, haploid cells called secondary spermatocytes
- (3) Two equal, haploid cells called secondary spermatocytes
- (4) Two equal, diploid cells called secondary spermatocytes

5. Identify the correct sequence

- (1) Spermatids → Primary Spermatocytes → Secondary spermatocytes → Spermatogonia → Spermatozoa
- (2) Spermatogonia → Primary Spermatocytes → Secondary spermatocytes → Spermatids → Spermatozoa

- (3) Spermatogonia → Secondary Spermatocytes → Primary spermatocytes → Spermatids → Spermatozoa

- (4) Spermatogonia → Primary Spermatocytes → Secondary spermatocytes → Spermatozoa → Spermatids

6. The secondary spermatocytes undergo the second meiotic division to produce

- (1) Four equal, haploid spermatids
- (2) Four unequal, haploid spermatozoa
- (3) Four unequal, haploid spermatids
- (4) Four equal, haploid spermatozoa

7. Which of the following group represents diploid cells?

- (1) Primary Spermatocytes, Secondary spermatocytes
- (2) Spermatogonia, Spermatozoa
- (3) Secondary spermatocytes, Spermatozoa
- (4) Primary Spermatocytes, Spermatogonia

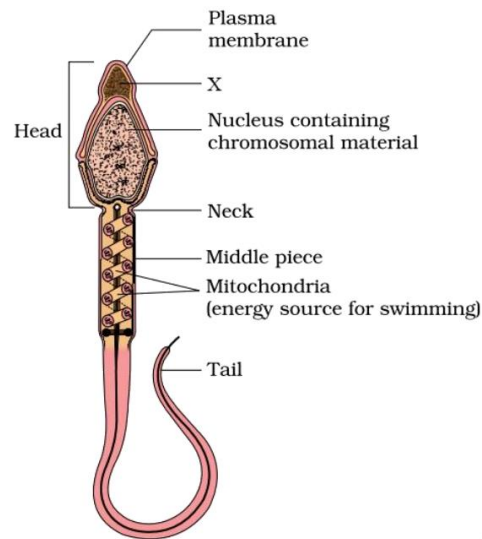
8. The spermatids are transformed into spermatozoa by the process called

- (1) Spermiation
- (2) Spermiogenesis
- (3) Azoospermia
- (4) Spermatocytogenesis

9. 100 Spermatogonia give rise to

- (1) 100 primary spermatocytes, 400 secondary spermatocytes, 600 spermatids, 400 spermatozoa
- (2) 100 primary spermatocytes, 400 secondary spermatocytes, 800 spermatids, 800 spermatozoa
- (3) 100 primary spermatocytes, 200 secondary spermatocytes, 400 spermatids, 400 spermatozoa
- (4) 100 primary spermatocytes, 200 secondary spermatocytes, 400 spermatids, 800 spermatozoa

10. Spermiogenesis occurs in
- (1) Seminiferous tubules
 - (2) Rete testis
 - (3) Tubuli recti
 - (4) Interstitial space
11. Find the correct statements
- (1) Sertoli cells are also called nurse cells
 - (2) Sertoli cells are involved in spermiogenesis
 - (3) Sertoli cells provide nourishment to developing sperms
 - (4) All of the above
12. Release of sperms from seminiferous tubules is called
- (1) Spermatocytogenesis
 - (2) Spermiogenesis
 - (3) Ejaculation
 - (4) Spermiation
13. Find out the correct statement with respect to human sperm
- (1) The neck is filled with enzymes that help in fertilisation of the ovum
 - (2) The head of sperm contains a diploid nucleus
 - (3) The middle piece possesses numerous mitochondria, which produce energy for the movement of sperm
 - (4) Sperm shows ciliary movement
14. Identify the structure X



- (1) Acrosome
- (2) Mitochondria
- (3) Nucleus
- (4) Centrioles

15. Select the incorrect statement about male hormonal activity
- (1) FSH acts on the sertoli cells and stimulates secretion of some factors which help in the process of spermiogenesis
 - (2) GnRH then acts at the anterior pituitary gland and stimulates secretion of two gonadotropins - FSH and LH
 - (3) FSH acts on the leydig cells and stimulates synthesis and secretion of androgens
 - (4) Androgens stimulate the process of spermatogenesis
16. For normal fertility
- (1) At least 60 percent sperms must have normal shape and size and at least 40 percent of them must show vigorous motility
 - (2) At least 50 percent sperms must have normal shape and size and at least 50 percent of them must show vigorous motility
 - (3) At least 40 percent sperms must have normal shape and size and at least 60 percent of them must show vigorous motility
 - (4) None of the above

ANSWER KEY

1. (1)
2. (3)
3. (4)
4. (3)
5. (2)
6. (1)
7. (4)
8. (2)

9. (3)
10. (1)
11. (4)
12. (4)
13. (3)
14. (1)
15. (3)
16. (1)