

MCQ TEST SERIES**S12-BZ-C2-HUMAN REPRODUCTION****2.2 GAMETOGENESIS**

1. Spermatogenesis is initiated at puberty due to increased secretion of:
 - A. FSH from hypothalamus
 - B. GnRH from hypothalamus
 - C. LH from pituitary
 - D. Testosterone from Sertoli cells
2. The function of FSH during spermatogenesis is to:
 - A. Stimulate Leydig cells to produce testosterone
 - B. Trigger meiosis in spermatocytes
 - C. Stimulate Sertoli cells to produce ABP
 - D. Cause release of mature sperm from seminiferous tubules
3. Which process transforms spermatids into mature spermatozoa?
 - A. Spermiation
 - B. Spermatogenesis
 - C. Spermiogenesis
 - D. Meiosis
4. Sertoli cells support spermatogenesis by secreting:
 - A. Testosterone
 - B. Inhibin and ABP
 - C. LH and FSH
 - D. Estrogen
5. Which structure releases mature sperms into the lumen of seminiferous tubules?
 - A. Leydig cells
 - B. Spermatids
 - C. Sertoli cells
 - D. Interstitial cells
6. What is the ploidy of secondary spermatocytes formed during spermatogenesis?
 - A. Diploid (2n)
 - B. Tetraploid (4n)
 - C. Haploid (n)
 - D. Triploid (3n)
7. Which of the following is the correct sequence in spermatogenesis?
 - A. Spermatogonia → Spermatid → Primary spermatocyte → Sperm
 - B. Spermatogonia → Primary spermatocyte → Secondary spermatocyte → Spermatid
 - C. Spermatid → Spermatogonia → Primary spermatocyte → Sperm
 - D. Sperm → Spermatid → Secondary spermatocyte → Primary spermatocyte
8. The function of ABP (Androgen Binding Protein) is to:
 - A. Stimulate ovum release
 - B. Stimulate sperm motility
 - C. Maintain high testosterone concentration in seminiferous tubules
 - D. Facilitate sperm capacitation
9. Oogonia start meiosis and arrest at:
 - A. Anaphase I
 - B. Prophase I
 - C. Metaphase II
 - D. Telophase I
10. Which event occurs only if fertilization happens in oogenesis?
 - A. Formation of secondary oocyte
 - B. First polar body release
 - C. Completion of meiosis II
 - D. Formation of primary follicle
11. The first polar body in oogenesis:
 - A. Develops into a functional ovum
 - B. Fertilizes the ovum
 - C. Is haploid and degenerates
 - D. Contains chromosomes from meiosis II
12. Which of the following best describes the human ovum's cytoplasmic features?
 - A. High number of mitochondria and flagella
 - B. Dense cytoplasm with germinal vesicle
 - C. No organelles
 - D. Lacks plasma membrane
13. What surrounds the human ovum to aid in fertilization?
 - A. Zona pellucida only
 - B. Corona radiata only
 - C. Vitelline membrane, zona pellucida, corona radiata
 - D. Chorion
14. Which of the following is true regarding spermatogenesis and oogenesis?
 - A. Both produce four functional gametes
 - B. Oogenesis arrests in metaphase I
 - C. Spermatogenesis is completed at birth
 - D. Spermatogenesis produces more functional gametes than oogenesis
15. The mitochondrial spiral (nebenkern) in sperm is located in the:
 - A. Head
 - B. Tail
 - C. Acrosome
 - D. Middle piece

MCQ TEST SERIES
S12-BZ-C2-HUMAN REPRODUCTION
2.2 GAMETOGENESIS

ANSWER KEY

1. B
2. C
3. C
4. B
5. C
6. C
7. B
8. C
9. B
10. C
11. C
12. B
13. C
14. D
15. D

www.Padasalai.Net