SmartKalike

CBSE Class 12 · Biology

Human Reproduction

10 most probable questions for Boards 2027

Q1. 1 mark · Multiple choice

Which statement about the penis is correct?
(A) Its erectile tissue facilitates insemination, and its glans is covered by the foreskin.
(B) Its erectile tissue produces androgens, and its glans is covered by the scrotum.
(C) It stores sperm in the glans, which is covered by the epididymis.
(D) It transports sperm through the vas deferens, and its glans is covered by the prostate.

Answer

(A) Its erectile tissue facilitates insemination, and its glans is covered by the foreskin — the enlarged end of the penis, the glans penis, is covered by a loose fold of skin called the foreskin.

Q2. 2 marks · Short answer

How does the scrotum help maintain conditions required for spermatogenesis? Include the temperature difference from normal internal body temperature.

Answer

1. Temperature — Scrotum: maintains the testes at a temperature 2–2.5°C below normal internal body temperature; abdominal cavity: warmer. This lower temperature is necessary for spermatogenesis.

Q3. 3 marks · Medium answer

Name the three regions of a fallopian tube in order from the ovary to the uterus. State where the fimbriae are located and what they do after ovulation.

Answer

1. From the ovary toward the uterus, the fallopian tube consists of the funnel-shaped infundibulum, the wider ampulla, and the narrow-lumen isthmus, which joins the uterus. Each tube is about 10-12 cm long and extends from the ovary to the uterus.
2. Fimbriae are finger-like projections at the edges of the infundibulum. They help collect the ovum after ovulation.

Q4. 5 marks · Long answer

Describe the roles of spermatogonia and Sertoli cells in seminiferous tubules, and explain the function of Leydig cells. Then trace the route taken by sperm from the seminiferous tubules to the urethra.

Answer

Seminiferous tubules produce sperms and contain male germ cells and Sertoli cells.

1. Spermatogonia are male germ cells lining the seminiferous tubules. They undergo meiotic divisions, finally leading to sperm formation.

2. Sertoli cells line the seminiferous tubules and provide nutrition to the germ cells.

3. Interstitial spaces outside the seminiferous tubules contain Leydig cells. Leydig cells synthesise and secrete testicular hormones called androgens.

4. Sperm pass from the seminiferous tubules through the rete testis into the vasa efferentia, which open into the epididymis. The epididymis leads to the vas deferens, which receives a duct from the seminal vesicle and opens into the urethra as the ejaculatory duct.

The urethra carries sperm through the penis to its external opening.

Q5. 1 mark · Multiple choice

Which statement correctly describes the birth canal?
(A) The cervical canal together with the vagina forms the birth canal.
(B) The cervical canal together with the uterus forms the birth canal.
(C) The cervix together with the oviduct forms the birth canal.
(D) The vagina together with the infundibulum forms the birth canal.

Answer

(A) The cervical canal together with the vagina forms the birth canal — the cervical canal along with the vagina forms the birth canal.

Q6. 2 marks · Short answer

Name the male accessory glands and state what their secretions form. Give two components of this secretion and one function of bulbourethral gland secretions.

Full answer on SmartKalike: https://smartkalike.com/cbse/class-12/biology/human-reproduction

Q7. 3 marks · Medium answer

Name the five structures included among the female external genitalia. State why the presence or absence of the hymen is not a reliable indicator of sexual experience.

Full answer on SmartKalike: https://smartkalike.com/cbse/class-12/biology/human-reproduction

Q8. 5 marks · Long answer

Explain the hormonal regulation of spermatogenesis from the increase in GnRH at puberty, including the roles of LH, FSH, Leydig cells and Sertoli cells. Describe the structure of a sperm and state the functions of its acrosome and middle-piece mitochondria.

Full answer on SmartKalike: https://smartkalike.com/cbse/class-12/biology/human-reproduction

Q9. 1 mark · Multiple choice

Which option correctly distinguishes spermiogenesis from spermiation?
(A) Spermiogenesis transforms spermatids into spermatozoa; spermiation releases spermatozoa from Sertoli cells.
(B) Spermiogenesis produces secondary spermatocytes; spermiation transforms them into spermatids.
(C) Spermiogenesis releases spermatozoa from the testis; spermiation produces them from spermatogonia.

(D) Spermiogenesis is meiosis I; spermiation is meiosis II.

Full answer on SmartKalike: https://smartkalike.com/cbse/class-12/biology/human-reproduction

Q10. 2 marks · Short answer

State two functions of the ovaries and name the two zones of the ovarian stroma.

Full answer on SmartKalike: https://smartkalike.com/cbse/class-12/biology/human-reproduction

Unlock all answers on SmartKalike

Every probable question of every chapter, each with a full answer, plus study targets and answer-sheet checking.

https://smartkalike.com/cbse/class-12/biology/human-reproduction

Sign up with a friend's email for 30% off their first purchase.