

Past Papers ¶

1) The Inner (visceral) layer of Bowman's capsule is lined by:

- a) Podocytes
- b) Simple squamous epithelium
- c) Simple cuboidal epithelium
- d) Simple columnar epithelium

Ans: A

2) Choose the correct pair:

- a) Sertoli cells—testosterone production.
- b) Prostate—corpora amylacea.

Ans: B

3) Which of the following is true:

Ans: Rara interna encounters the endothelium.

- 1. Endothelium
- 2. Lamina rara interna
- 3. Lamina densa
- 4. Lamina rara externa
- 5. Podocyte filtration slits

1. Which of the following is true about the muscle layers of the epididymis?

- A) It has only longitudinal layers
- B) It has a circular layer between two longitudinal layers
- C) It has only a circular layer
- D) It has no muscle layers

Answer: B) It has a circular layer between two longitudinal layers

2. Which of the following cells are found in the testis and are involved in supporting spermatogenesis?

- A) Sertoli cells

- B) Myoid cells
- C) Leydig cells
- D) Chief cells

Answer: B) Myoid cells

3. The epithelium of the vaginal part of the cervix is:

- A) Simple squamous
- B) Simple columnar
- C) Pseudostratified
- D) Stratified squamous

Answer: C) Pseudostratified

4. Lacis cells are located between which structures in the kidney?

- A) Proximal and distal tubules
- B) Afferent and efferent arterioles
- C) Glomerulus and Bowman's capsule
- D) Loop of Henle and collecting duct

Answer: B) Afferent and efferent arterioles

Histology 1

1. Which of the following is NOT a function of the kidney?

- A) Controlling water and electrolyte balance
- B) Secretion of insulin
- C) Regulating extracellular fluid volume
- D) Secretion of erythropoietin

Answer: B) Secretion of insulin

2. The functional unit of the kidney is called:

- A) Lobule
- B) Nephron
- C) Medullary pyramid
- D) Ureter

Answer: B) Nephron

3. The renal corpuscle is composed of:

- A) Loop of Henle and collecting duct
- B) Glomerulus and Bowman's capsule
- C) Proximal and distal convoluted tubules
- D) Medullary pyramid and cortex

Answer: B) Glomerulus and Bowman's capsule

4. The filtration barrier in the kidney includes all of the following EXCEPT:

- A) Fenestrated capillary endothelium
- B) Thick glomerular basement membrane
- C) Podocyte filtration slits
- D) Stratified squamous epithelium

Answer: D) Stratified squamous epithelium

5. Podocytes are specialized cells that:

- A) Line the proximal convoluted tubule
- B) Form filtration slits around glomerular capillaries
- C) Secrete renin
- D) Absorb water in the collecting duct

Answer: B) Form filtration slits around glomerular capillaries

6. Which type of nephron has long loops of Henle and is located near the cortex-medulla junction?

- A) Cortical nephron
- B) Juxtamedullary nephron
- C) Medullary nephron
- D) Transitional nephron

Answer: B) Juxtamedullary nephron

7. The juxtaglomerular cells are responsible for:

- A) Absorbing glucose from filtrate
- B) Secreting renin to regulate blood pressure
- C) Forming the filtration barrier
- D) Producing erythropoietin

Answer: B) Secreting renin to regulate blood pressure

8. The epithelium lining the proximal convoluted tubule is:

- A) Simple squamous
- B) Simple cuboidal with long microvilli
- C) Stratified squamous
- D) Transitional

Answer: B) Simple cuboidal with long microvilli

9. Which cells in the collecting duct help maintain acid-base balance by secreting H^+ or HCO_3^- ?

- A) Principal cells
- B) Podocytes
- C) Intercalated cells
- D) Mesangial cells

Answer: C) Intercalated cells

10. The urothelium (transitional epithelium) is characterized by:

- A) A single layer of squamous cells

- B) Multiple layers including umbrella cells that protect against hypertonic urine
- C) Stratified columnar epithelium
- D) Simple cuboidal epithelium

Answer: B) Multiple layers including umbrella cells that protect against hypertonic urine

11. The muscular layer of the ureter consists of:

- A) Inner circular and outer longitudinal smooth muscle layers
- B) Inner longitudinal and outer circular smooth muscle layers
- C) Skeletal muscle fibers
- D) Only one smooth muscle layer

Answer: B) Inner longitudinal and outer circular smooth muscle layers

12. The detrusor muscle of the urinary bladder is composed of:

- A) Three layers of smooth muscle arranged in different orientations
- B) Skeletal muscle fibers
- C) Only longitudinal muscle fibers
- D) Only circular muscle fibers

Answer: A) Three layers of smooth muscle arranged in different orientations

13. The male membranous urethra is lined by:

- A) Transitional epithelium
- B) Stratified columnar and pseudostratified columnar epithelium
- C) Simple squamous epithelium
- D) Stratified squamous epithelium

Answer: B) Stratified columnar and pseudostratified columnar epithelium

14. The macula densa cells are located in:

- A) Proximal convoluted tubule
- B) Distal convoluted tubule near the vascular pole of the glomerulus
- C) Collecting duct

D) Loop of Henle

Answer: B) Distal convoluted tubule near the vascular pole of the glomerulus

15. Which of the following statements about the filtration barrier is TRUE?

A) It allows passage of large plasma proteins freely

B) It consists of fenestrated endothelium, fused basement membrane, and filtration slits

C) It is lined by stratified squamous epithelium

D) It is impermeable to water

Answer: B) It consists of fenestrated endothelium, fused basement membrane, and filtration slits

Histology 2

MCQs on Histology of the Male Genital System

1. Which of the following is the primary sex organ in the male reproductive system?

A) Epididymis

B) Testis

C) Seminal vesicle

D) Prostate gland

Answer: B) Testis

2. The tunica albuginea of the testis:

A) Is a serous membrane covering the testis

B) Forms the mediastinum testis on the posterior surface

C) Is a layer of smooth muscle surrounding the seminiferous tubules

D) Contains Leydig cells

Answer: B) Forms the mediastinum testis on the posterior surface

3. Which cells in the testis are responsible for testosterone production?

- A) Sertoli cells
- B) Spermatogonia
- C) Leydig cells
- D) Myoid cells

Answer: C) Leydig cells

4. Sertoli cells are characterized by all the following except:

- A) Forming the blood-testis barrier
- B) Phagocytosing residual bodies during spermiogenesis
- C) Producing testosterone
- D) Responding to follicle-stimulating hormone (FSH)

Answer: C) Producing testosterone

5. Which of the following correctly describes the blood-testis barrier?

- A) Formed by tight junctions between Leydig cells
- B) Separates the seminiferous tubule into basal and adluminal compartments
- C) Allows free passage of antibodies into the seminiferous tubules
- D) Is formed by the basement membrane surrounding seminiferous tubules

Answer: B) Separates the seminiferous tubule into basal and adluminal compartments

6. The largest cells in the seminiferous epithelium undergoing the first meiotic division are:

- A) Spermatogonia
- B) Primary spermatocytes
- C) Secondary spermatocytes
- D) Spermatids

Answer: B) Primary spermatocytes

7. Which of the following statements about spermatozoa is true?

- A) The acrosomal cap contains mitochondria for energy production
- B) The middle piece contains a mitochondrial sheath surrounding the axoneme

- C) The tail lacks microtubules
- D) The head contains centrioles

Answer: B) The middle piece contains a mitochondrial sheath surrounding the axoneme

8. The epididymis is lined by:

- A) Simple squamous epithelium
- B) Pseudostratified columnar epithelium with stereocilia
- C) Stratified squamous epithelium
- D) Transitional epithelium

Answer: B) Pseudostratified columnar epithelium with stereocilia

9. The vas deferens is distinguished histologically by:

- A) Thin muscular wall with only circular muscle
- B) Thick muscular wall with inner and outer longitudinal and middle circular layers
- C) Simple cuboidal epithelium
- D) Lack of elastic fibers in the lamina propria

Answer: B) Thick muscular wall with inner and outer longitudinal and middle circular layers

10. The seminal vesicle secretes a fluid that is:

- A) Acidic and rich in acid phosphatase
- B) Thick, yellowish, alkaline, rich in fructose and vitamin C
- C) Thin and milky, rich in testosterone
- D) Clear and watery, rich in spermatozoa

Answer: B) Thick, yellowish, alkaline, rich in fructose and vitamin C

11. The prostate gland is composed of:

- A) A single large gland with no subdivisions
- B) 30-50 compound tubuloalveolar glands arranged concentrically around the prostatic urethra
- C) Simple tubular glands with no stroma

D) Only mucosal glands surrounding the urethra

Answer: B) 30-50 compound tubuloalveolar glands arranged concentrically around the prostatic urethra

12. Which of the following is NOT a function of Sertoli cells?

A) Formation of blood-testis barrier

B) Secretion of androgen-binding protein (ABP)

C) Phagocytosis of residual cytoplasm during spermiogenesis

D) Secretion of testosterone

Answer: D) Secretion of testosterone

13. The corpus spongiosum of the penis differs from the corpora cavernosa by having:

A) Thicker tunica albuginea

B) No erectile tissue

C) Thinner and more elastic tunica albuginea

D) No blood supply

Answer: C) Thinner and more elastic tunica albuginea

14. The interstitial cells of Leydig are stimulated by which hormone to secrete testosterone?

A) Follicle-stimulating hormone (FSH)

B) Luteinizing hormone (LH)

C) Prolactin

D) Gonadotropin-releasing hormone (GnRH)

Answer: B) Luteinizing hormone (LH)

15. Which of the following ducts is formed by the union of the vas deferens and seminal vesicle?

A) Efferent ductules

B) Ejaculatory duct

C) Rete testis

D) Straight tubules

Answer: B) Ejaculatory duct

By: ayah freihat