

Advanced Human Anatomy Assessment

Anatomy · Answer Key · 25 Questions

1. Which specific cranial nerve is responsible for the motor innervation of the lateral rectus muscle of the eye?

- A) Abducens nerve (CN VI)**
- B) Trochlear nerve (CN IV)
- C) Oculomotor nerve (CN III)
- D) Trigeminal nerve (CN V)

2. The loop of Henle is primarily located within which anatomical region of the kidney?

- A) Renal cortex
- B) Renal medulla**
- C) Renal pelvis
- D) Renal capsule

3. Which carpal bone is the most frequently fractured during a fall on an outstretched hand?

- A) Lunate
- B) Triquetrum
- C) Scaphoid**
- D) Trapezium

4. In the human heart, the mitral valve is anatomically positioned between which two chambers?

- A) Right atrium and right ventricle
- B) Left atrium and left ventricle**
- C) Right ventricle and pulmonary artery
- D) Left ventricle and aorta

5. Which histological layer of the gastrointestinal tract contains the Meissner's plexus?

- A) Serosa
- B) Muscularis externa
- C) Submucosa**
- D) Mucosa

6. The circle of Willis is an anastomotic network of arteries primarily located at the base of which organ?

- A) Heart
- B) Kidney
- C) Liver
- D) Brain**

7. Which muscle is the primary abductor of the glenohumeral joint for the first 15 degrees of movement?

- A) Supraspinatus**
- B) Deltoid
- C) Infraspinatus
- D) Teres minor

8. What is the correct anatomical name for the cells in the testes responsible for testosterone production?

- A) Sertoli cells
- B) Leydig cells**
- C) Spermatogonia
- D) Primary spermatocytes

9. Which ligament connects the uterus to the labia majora, passing through the inguinal canal?

- A) Broad ligament
- B) Ovarian ligament
- C) Round ligament**
- D) Suspensory ligament

10. The 'pacemaker' of the heart, the sinoatrial node, is located in the wall of which chamber?

- A) Right atrium**
- B) Left atrium
- C) Right ventricle
- D) Left ventricle

11. Which bone in the human body does not articulate with any other bone?

- A) Patella
- B) Hyoid**
- C) Stapes
- D) Pisiform

12. The falciform ligament is a structure that serves to attach the liver to which anatomical wall?

- A) Posterior abdominal wall
- B) Diaphragm and anterior abdominal wall**
- C) Greater omentum
- D) Pelvic floor

13. Which endocrine gland is derived embryologically from the pharyngeal pouches and is located posterior to the thyroid gland?

- A) Adrenal gland
- B) Pituitary gland
- C) Parathyroid gland**
- D) Pineal gland

14. What are the functional filtration units of the kidney called?

- A) Nephrons**
- B) Glomeruli
- C) Collecting ducts
- D) Renal calyces

15. Which specific joint type is the atlanto-axial joint, allowing for the rotation of the head?

- A) Hinge joint
- B) Saddle joint
- C) Pivot joint**
- D) Gliding joint

16. The sustentaculum tali is a bony prominence found on which tarsal bone?

- A) Talus
- B) Calcaneus**
- C) Cuboid
- D) Navicular

17. Which cranial nerve provides sensory innervation to the anterior two-thirds of the tongue?

- A) Glossopharyngeal (CN IX)
- B) Vagus (CN X)
- C) Facial (CN VII)**
- D) Hypoglossal (CN XII)

18. The cisterna chyli is the origin of which major lymphatic vessel?

- A) Right lymphatic duct
- B) Thoracic duct**
- C) Jugular trunk
- D) Subclavian trunk

19. Which layer of the meninges is the most vascularized and adheres directly to the surface of the brain?

- A) Dura mater
- B) Arachnoid mater
- C) Pia mater**
- D) Subdural space

20. The internal carotid artery enters the skull through which specific foramen?

- A) Foramen magnum
- B) Foramen ovale
- C) Carotid canal**
- D) Jugular foramen

21. Which enzyme, secreted by the stomach, is activated by hydrochloric acid to begin protein digestion?

- A) Pepsinogen**
- B) Trypsin
- C) Lipase
- D) Amylase

22. The vasa recta are specialized capillary networks associated with which type of nephron?

- A) Cortical nephrons
- B) Juxtamedullary nephrons**
- C) All nephrons
- D) Proximal convoluted tubule

23. Which muscle of the rotator cuff is responsible for the internal rotation of the humerus?

- A) Subscapularis**
- B) Infraspinatus
- C) Teres minor
- D) Supraspinatus

24. The macula densa cells are specialized chemoreceptors located in which part of the nephron?

A) Proximal convoluted tubule

B) Distal convoluted tubule

C) Loop of Henle

D) Glomerular capsule

25. Which nerve, if damaged, results in 'wrist drop' due to paralysis of the extensor muscles?

A) Median nerve

B) Ulnar nerve

C) Radial nerve

D) Musculocutaneous nerve