

Advanced Human Anatomy Challenge

Anatomy · Practice Test · 20 Questions

1. Which cranial nerve is primarily responsible for innervating the muscles of mastication and also carries sensory information from the face and anterior two-thirds of the tongue?

- A) Facial Nerve (VII)
- B) Glossopharyngeal Nerve (IX)
- C) Trigeminal Nerve (V)
- D) Vagus Nerve (X)

2. The innermost layer of the arterial wall, responsible for smooth blood flow and preventing platelet aggregation, is known as the:

- A) Tunica media
- B) Tunica externa (adventitia)
- C) Tunica intima
- D) Endocardium

3. In the context of the urinary system, which part of the nephron is primarily responsible for facultative water reabsorption, regulated by antidiuretic hormone (ADH)?

- A) Proximal convoluted tubule
- B) Loop of Henle
- C) Distal convoluted tubule and collecting duct
- D) Glomerulus

4. Which bone in the human skull articulates with the atlas (C1 vertebra) via the occipital condyles?

- A) Sphenoid bone
- B) Temporal bone
- C) Parietal bone
- D) Occipital bone

5. The primary site of synthesis for bile, which aids in fat digestion and absorption, is the:

- A) Gallbladder
- B) Pancreas
- C) Spleen
- D) Liver

6. Which of the following muscles is a primary mover for shoulder abduction, but is often mistakenly attributed solely to the deltoid muscle?

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

7. The blood-brain barrier is primarily formed by the specialized endothelial cells of which vascular structure?

- A) Arterioles
- B) Venules
- C) Capillaries
- D) Sinusoids

8. Which endocrine gland produces parathyroid hormone (PTH), essential for regulating calcium and phosphate levels in the blood?

- A) Thyroid gland
- B) Adrenal glands
- C) Parathyroid glands
- D) Pituitary gland

9. The auditory ossicles (malleus, incus, stapes) are located within which part of the temporal bone?

- A) Mastoid process
- B) Squamous part
- C) Petrous part
- D) Tympanic part

10. Which structural component of the respiratory system is characterized by its rich vascularization and thin walls, facilitating gas exchange between air and blood?

- A) Bronchioles
- B) Alveoli
- C) Trachea
- D) Larynx

11. The primary neurotransmitter involved in the parasympathetic nervous system's action on target organs is:

- A) Norepinephrine
- B) Dopamine
- C) Serotonin
- D) Acetylcholine

12. Which type of joint allows for the greatest range of motion and is characterized by a synovial cavity between articulating bones?

- A) Hinge joint
- B) Pivot joint
- C) Ball-and-socket joint
- D) Saddle joint

13. The intrinsic muscles of the hand, responsible for fine motor movements and grip, are primarily innervated by which nerve?

- A) Median nerve
- B) Radial nerve
- C) Ulnar nerve
- D) Axillary nerve

14. Which organ is responsible for filtering blood and producing urine, consisting of millions of nephrons?

- A) Bladder
- B) Ureters
- C) Kidneys
- D) Urethra

15. The structure that separates the outer and middle ear, vibrating in response to sound waves, is the:

- A) Eustachian tube
- B) Ossicles
- C) Tympanic membrane (eardrum)
- D) Cochlea

16. Which hormone, produced by the pancreas, lowers blood glucose levels by promoting glucose uptake by cells and storage as glycogen?

- A) Glucagon
- B) Cortisol
- C) Insulin
- D) Epinephrine

17. The broad, flat muscle that covers the back of the neck and the upper and middle back, responsible for rotating and extending the head and neck, is the:

- A) Deltoid muscle
- B) Trapezius muscle
- C) Latissimus dorsi muscle
- D) Rhomboid major muscle

18. The small intestine is divided into three segments: the duodenum, the jejunum, and the:

- A) Cecum
- B) Colon
- C) Ileum
- D) Appendix

19. Which layer of the skin is avascular and composed primarily of keratinocytes and melanocytes?

- A) Dermis
- B) Hypodermis
- C) Epidermis
- D) Stratum corneum

20. The main artery supplying oxygenated blood to the brain is the:

- A) Vertebral artery
- B) Cerebral artery
- C) Internal carotid artery
- D) Basilar artery