



Examples of HAPS A&P Exam Type Questions (10/25/17)

1. What cranial nerve nucleus associated with eye movement is found in the pons?

- A. Abducens nucleus
- B. Facial motor nucleus
- C. Oculomotor nucleus
- D. Principal trigeminal nucleus
- E. Trochlear nucleus

Correct Answer: A

Addresses: Module H (Nervous System), Topic 9, Learning Outcome 3

2. What component of the digestive system contains intestinal glands (crypts of Lieberkühn), but lacks villi?

- A. Duodenum
- B. Esophagus
- C. Ileum
- D. Stomach
- E. Transverse colon

Correct Answer: E

Addresses: Module N (Digestive System), Topic 1, Learning Outcome 1b

3. What would be the clinical sign expected in patients if a lower motor neuron were lesioned?

- A. Flaccid paralysis
- B. Hyperreflexia
- C. Hypertonia
- D. Increase in strength
- E. Present Babinski reflex

Correct Answer: A

Addresses: Module H (Nervous System), Topic 12, Learning Outcome 2

4. Which of the following muscles is the primary flexor of the forearm?

- A. Biceps brachii m.
- B. Brachialis m.
- C. Brachioradialis m.
- D. Pronator teres m.
- E. Triceps brachii m.

Correct Answer: B

Addresses: Module G (Muscular System), Topic 8, Learning Outcome 1

5. Which of the following occurs during concentric isotonic contraction of skeletal muscle?
- A. A-bands shorten
 - B. I-bands shorten
 - C. Sarcomeres lengthen
 - D. Thick (myosin) myofilaments lengthen
 - E. Thin (actin) myofilaments shorten

Correct Answer: B

Addresses: Module G (Muscular System), Topic 4, Learning Outcome 1

6. Of the following locations, where are the cell bodies of somatic afferent neurons found?
- A. Anterior (ventral) horn of spinal cord
 - B. Posterior (dorsal) root ganglion
 - C. In cerebral white matter
 - D. Posterior (horn) horn of spinal cord
 - E. Sympathetic trunk (chain) ganglia

Correct Answer: B

Addresses: Module H (Nervous System), Topic 3, Learning Outcome 2d

7. At what vertebral level is the esophageal hiatus of the diaphragm located?
- A. T4
 - B. T6
 - C. T8
 - D. T10
 - E. T12

Correct Answer: D

Addresses: Module M (Respiratory System), Topic 2, Learning Outcome 5

8. Red blood cells would swell when placed in which type of solution?
- A. Hydrophilic
 - B. Hypertonic
 - C. Hypotonic
 - D. Isotonic
 - E. Lipophilic

Correct Answer: C

Addresses: Module C (Chemistry & Cell Biology Review), Topic 8, Learning Outcome 2

9. Deoxygenated blood from the superior vena cava drains directly into which area of the heart?
- A. Coronary sinus
 - B. Left atrium
 - C. Left ventricle
 - D. Right atrium
 - E. Right ventricle

Correct Answer: D

Addresses: Module K (Cardiovascular System), Topic 8, Learning Outcome 1

10. Primordial follicles, containing primary oocytes, are found in the outer portion of the ovary's cortex. In which stage of meiosis are primary oocytes arrested?
- A. Anaphase of meiosis II
 - B. Metaphase of meiosis I
 - C. Metaphase of meiosis II
 - D. Prophase of meiosis I
 - E. Prophase of meiosis II

Correct Answer: D

Addresses: Module R (Reproductive System), Topic 3, Learning Outcome 2

11. What structure conducts sperm from the epididymis to the ejaculatory duct?
- A. Duct of the seminal vesicle
 - B. Ductus (vas) deferens
 - C. Penile (spongy) urethra
 - D. Prostatic urethra
 - E. Seminiferous tubule

Correct Answer: B

Addresses: Module R (Reproductive System), Topic 5, Learning Outcome 3

12. What is the name of the process by which neurotransmitters are released from the axon terminal?
- A. Active transport
 - B. Endocytosis
 - C. Exocytosis
 - D. Facilitated diffusion
 - E. Simple diffusion

Correct Answer: C

Addresses: Module C (Chemistry & Cell Biology Review), Topic 8, Learning Outcome 1a

13. When you see someone that you think is very special and who you would like to get to know better, your heart begins to beat a little faster. In this situation, what is the integrating center?
- A. Brainstem
 - B. Eye
 - C. Cerebellum
 - D. Heart
 - E. Limbic system

Correct Answer: E

Addresses: Module H (Nervous System), Topic 2, Learning Outcome 1

14. Bob is running a digestion experiment in the lab. He wants to determine which substance(s) is/are most efficient at carrying out fat digestion. He puts food containing different fats plus the substance(s) being tested into test tubes, shakes vigorously, and then leaves the tubes to incubate at body temperature for 30 minutes. Which of the following tubes should show the most fat digestion?
- A. The tube containing bile salts and lipase.
 - B. The tube containing fats and lipase.
 - C. The tube containing fats, bile salts, and lipase.
 - D. The tube containing fats, bile salts, and maltase.
 - E. The tube containing fats, peptidase, and bile salts.

Correct Answer: C

Addresses: Module N (Digestive System), Topic 6, Learning Outcome 2e & 5b

15. What is the term for the volume of blood pumped by one ventricle in one minute?

- A. Cardiac output
- B. Cardiac velocity of flow
- C. End-diastolic volume
- D. End-systolic volume
- E. Stroke volume

Correct Answer: A

Addresses: Module K (Cardiovascular System), Topic 11, Learning Outcome 1a