

1. Which of the following is NOT a functional characteristic of all muscle tissue?

- a. Excitability
- b. Extensibility
- c. myogenicity**
- d. contractility

2. The ion which is stored in the sarcoplasmic reticulum is

- a. calcium.**
- b. sodium.
- c. phosphate.
- d. chloride.

3. The “dark” band in skeletal & cardiac muscle tissue is due to

- a. the overlapping of the z-discs and actin filaments.
- b. the overlapping of the troponin & tropomyosin on actin.
- c. the lack of light filaments in the sarcomere.
- d. the overlapping of myosin and actin.**

4. In muscle tissue, ATP is required for the process of

- a. Detaching myosin from actin.
- b. Maintaining the membrane potential of the muscle fiber.
- c. Actively pumping calcium into its storage area.
- d. All of the above.**
- e. None of the above.

5. The excitation-contraction coupling events in muscle contraction

- a. is responsible for the lag phase that occurs once a threshold stimulus arrives, but before the contraction of the sarcomere starts.**
- b. Is what actually shortens the sarcomere.
- c. Has two components, the bending of the myosin filaments and the release of actin.
- d. requires large amounts of ATP.

6. Cardiac muscle cells are distinguished from other muscle tissues by which of the following?

- a. Dense bodies
- b. Caveolae
- c. Intercalated discs**
- d. Cylindrical myofibrils

7. The pacemaker potential

- a. Occurs as a result of funny channels (I_f) allowing a gradual depolarization of the membrane to threshold.
- b. Can only reach threshold if activated by cholinergic neurons.
- c. Is found in all excitable tissues.
- d. Can be sped up or slowed down depending on which ANS system, sympathetic vs. parasympathetic, is dominating.
- e. **Two of the above are correct.**
- f. Three of the above are correct.

8. Systole refers to

- a. A period of relaxation
- b. A latent period somewhere between excitation and contraction.
- c. **A period of contraction**
- d. The summation of twitches in cardiac muscle tissue.

9. The amount of blood ejected from the left ventricle each minute is

- a. the stroke volume.
- b. the pulse pressure.
- c. **the cardiac output.**
- d. the diastolic fraction.

10. The return of blood to the right atrium is aided by

- a. The skeletal muscle pump
- b. The respiratory pump
- c. Atrial suction
- d. **All of the above**
- e. None of the above