2008年度ヒト生物学II

ヒト生物学 II 試験　Skeletal System　　問題用紙（解答用紙は後）

Choose the best answer for each question.

1. The bone cell that is responsible for breaking down bone tissue is the _____, while the bone dell that produces new bone tissue is the _____.
(a.) osteoclast, osteoblast
b. osteocyte, osteoclast
c. osteoblast, osteocyte
d. osteocyte, osteoblast
e. osteoclast, osteocyte

2. Which of the following is not a function of the skeletal system?
a. production of blood cells
b. storage of minerals
c. involved in movement
d. storage of fat
(e.) production of body heat

3. When you bend your arm, the bump seen as your elbow is part of the _____.
a. humerus
b. radius
(c.) ulna
d. femur
e. tibia

In these two questions, indicate whether the statement is true (T) or false (F).

4. The vertebral column supports the head and trunk. T

5. Exercise can help osteoporosis. F

Muscular System 問題用紙（解答用紙は後ろ）

筋膜
____ 1. The fascia surrounding a muscle is made up of
a. cartilage. 軟骨
(b.) fibrous connective tissue. 線維性結合組織
c. blood vessels. 血管
d. adipose tissue. 脂肪組織

骨格筋の
____ 2. The contractile unit of a skeletal muscle is the
a. myofibril. 筋原線維
b. actin filament.
(c.) sarcomere.
d. myosin filament.

____ 3. A muscle pulling just opposite to another can be best described as a(n)
a. protagonist. 主動筋
(b.) antagonist. 対抗筋
c. prime mover. 主動筋
d. synergist. 他の作用を助ける構造(共力器官筋)

____ 4. Which of these is a function of skeletal muscle?
a. produce heat
b. posture
c. movement
(d.) All of these are correct.

____ 5. Choose the muscle that is the antagonist to the triceps brachii. 上腕三頭筋
a. gastrocnemius 腓腹筋
b. quadriceps femoris 大腿四頭筋
(c.) biceps brachii 上腕二頭筋
d. latissimus dorsi 広背筋

____ 6. Choose the muscle that is the antagonist to the tibialis anterior. 前脛骨筋
(a.) gastrocnemius 腓腹筋
(b.) sartorius 縫工筋
c. gluteus maximus 大臀筋
d. trapezius 僧帽筋

____ 7. Which muscle covers the shoulder and functions to raise the arm?
a. external oblique 外腹斜筋
(b.) deltoid 三角筋
c. occipitalis 後頭筋
d. peroneus longus 長腓骨筋

大腿
____ 8. Which muscle is located on the front thigh and raises (extends) the lower leg?
a. trapezius 僧帽筋
b. rectus abdominis 腹直筋
c. pectoralis major 大胸筋
(d.) quadriceps femoris 太腿四頭筋

____ 9. Which portion of the muscle is on the stationary bone?
a. the insertion
(b.) the origin
c. the bursa
d. the belly 筋腹

← P25

____ 10. Which of these is the smallest unit?
a. muscle fiber
b. myofibril
c. sarcomere
(d.) actin

収縮
____ 11. When sarcomeres contract, they get shorter, and this requires that muscles work in antagonistic pairs.
(a.) true
b. false

____ 12. Myosin is
(a.) the thick filament of a sarcomere.
b. a protein.
c. an organelle. 細胞小器官
d. Both *b* and *c* are correct.

____ 13. Which of these contains the cross-bridges? クロスブリッジ
a. the actin
(b.) the myosin
c. the Z line
d. All of these are correct.

____ 14. According to the sliding filament theory,
(a.) actin moves past myosin.
b. myosin moves past actin.
c. both myosin and actin move past each other.
d. None of these is correct.

____ 15. The release of calcium from the sarcoplasmic 筋小胞体 reticulum
a. causes the sarcomeres to relax.
(b.) causes sarcomeres to contract.
c. is the end result of a nervous impulse to contract.
d. Both *b* and *c* are correct.
e. All of these are correct.