

NAME \_\_\_\_\_

DATE \_\_\_\_\_

**SPMD 201 – Human Anatomy for Sports Medicine**  
**Articulations & Ligaments**  
Chapter 8

**Multiple Choice**

- \_\_\_\_\_ 1. Joints between the carpal bones would be named the:
- A. costocarpal joints.
  - B. intermetacarpal joints.
  - C. metacarpalphalangel joints.
  - D. intercarpal joints.
- \_\_\_\_\_ 2. Joints are classified according to the:
- A. bones that are united at the joint.
  - B. structure of the joint.
  - C. size of the joint.
  - D. shape of the joint.
- \_\_\_\_\_ 3. A joint that has no cavity and exhibits little or no movement would be classified as a:
- A. fibrous joint.
  - B. synovial joint
  - C. complex joint.
  - D. cartilaginous joint.
- \_\_\_\_\_ 4. In a syndesmosis:
- A. there is an osseus union between the bones of the joint.
  - B. the bones are held together by ligaments called interosseous membranes.
  - C. it is not unusual to find discs of cartilage.
  - D. a cone-shaped bone fits into a socket.
- \_\_\_\_\_ 5. Cartilaginous joints:
- A. are common in the skull.
  - B. unite two bones by means of fibrocartilage or hyaline cartilage.
  - C. allow the most movement between bones.
  - D. are found in the lower leg.

- \_\_\_\_\_6. The epiphyseal plate of a growing bone is actually a temporary joint called a:
- A. synchondrosis.
  - B. amphiarthrosis.
  - C. syndesmosis.
  - D. symphysis.
- \_\_\_\_\_7. Synovial fluid:
- A. lacks cells.
  - B. is found between all bony junctions.
  - C. decreases friction between bones.
  - D. is produced by articular cartilage.
- \_\_\_\_\_8. Which of the following is a synovial joint?
- A. atlanto-occipital
  - B. epiphyseal plate
  - C. costosternal joint
  - D. tibiofibular
- \_\_\_\_\_9. The function of bursa is to:
- A. provide support for a weak joint.
  - B. provide a fluid-filled cushion.
  - C. increase the articular surface at a joint.
  - D. bind ligaments to bones.
- \_\_\_\_\_10. Which of the following types of joints is mismatched with its location?
- A. saddle – thumb
  - B. ball-and-socket – between humerus and scapula
  - C. condyloid – interphalangeal joints
  - D. gliding – between carpal bones
- \_\_\_\_\_11. A biaxial joint has movement:
- A. around one axis.
  - B. around two axes at right angles to one another.
  - C. about several axes.
  - D. as long as there is articular cartilage present.

- \_\_\_\_\_12. The joint between the articular processes of adjacent vertebrae is a \_\_\_\_\_ joint.
- A. gliding
  - B. hinge
  - C. saddle
  - D. pivot
- \_\_\_\_\_13. Which of the following joints is most moveable?
- A. gliding
  - B. saddle
  - C. hinge
  - D. pivot
  - E. ball-and-socket
- \_\_\_\_\_14. Which of the following pairs of terms are opposites?
- A. plantar flexion – dorsiflexion
  - B. abduction – extension
  - C. inversion – retraction
  - D. pronation – rotation
- \_\_\_\_\_15. Shrugging the shoulders is an example of:
- A. elevation
  - B. adduction
  - C. supination
  - D. retraction
- \_\_\_\_\_16. A tennis player goes to the doctor and is told he has a torn rotator cuff. He has injured his:
- A. neck.
  - B. shoulder.
  - C. elbow.
  - D. knee.
- \_\_\_\_\_17. Which of the following movements is NOT possible at the hip joint?
- A. rotation
  - B. flexion
  - C. circumduction
  - D. adduction
  - E. all of these movements are possible

- \_\_\_\_\_18. The medial meniscus is in the:
- A. neck.
  - B. shoulder.
  - C. hip.
  - D. knee.
- \_\_\_\_\_19. The acromioclavicular joint:
- A. is a gliding-type synovial joint.
  - B. is known as the “point of the shoulder.”
  - C. is strengthened by the trapezius muscle.
  - D. all of the above
- \_\_\_\_\_20. The shoulder joint:
- A. is a ball-and-socket synovial joint.
  - B. is a quite stable joint.
  - C. is loose when the arm is abducted.
  - D. all of the above
- \_\_\_\_\_21. The fibrocartilaginous labrum of the acetabulum:
- A. joins the two coxa of the pelvis.
  - B. increases the depth of the hip socket.
  - C. is located between the clavicle and sternum.
  - D. forms a saddle joint in the thumb.
- \_\_\_\_\_22. The knee joint is correctly classified as a \_\_\_\_\_-type synovial joint.
- A. hinge
  - B. pivot
  - C. ball-and-socket
  - D. condyloid
- \_\_\_\_\_23. Which of the following is NOT true of the anterior cruciate ligament?
- A. located in the knee
  - B. prevents anterior displacement of the femur on the tibia
  - C. weaker than the posterior cruciate ligament.
  - D. arises from the anterior part of the intercondylar area of the tibia

\_\_\_\_\_24. Which of the following is NOT part of the “unhappy triad”?

- A. anterior cruciate ligament
- B. tibial collateral ligament
- C. lateral meniscus

\_\_\_\_\_25. Which of the following is true of the ankle joint?

- A. also known as the talocrural joint
- B. hinge-type synovial joint
- C. strengthened by the deltoid ligament
- D. relatively weak in plantar flexion
- E. all of the above

### Alternate Choice

1. The combination of flexion, extension, adduction, and abduction is circumduction / supination (circle one).
2. Movement of the leg in the anterior direction is extension / flexion (circle one).
3. Abduction is movement away from / toward (circle one) the midline.
4. Rotation of the forearm so that the palm faces posteriorly is called pronation / supination (circle one).
5. The joint between a tooth and the mandible is classified as a gomphosis / syndesmosis (circle one).
6. Synovial joints are classified *functionally* as diarthroses / synarthroses (circle one).
7. Movement of a body part posteriorly in the horizontal plane is protraction / retraction (circle one).
8. The knee joint is classified as a condyloid / hinge (circle one) joint.
9. The main supporter of the medial longitudinal arch of the foot is the plantar calcaneonavicular or “deltoid” / “spring” (circle one) ligament.
10. The ACL prevents anterior / posterior (circle one) displacement of the *femur on the tibia*.

### Fill-In

1. Pressing the gas pedal to accelerate an automobile involves \_\_\_\_\_ flexion at the ankle.
2. The joint between the atlas and axis is an example of a \_\_\_\_\_ (type) synovial joint.
3. Movement of a body part superiorly, e.g., the mandible is referred to as \_\_\_\_\_.
4. The term used for the *functional* joint classification that is described as “immovable” is \_\_\_\_\_-arthrosis.
5. The joint between the clavicle and the acromion is a \_\_\_\_\_ (type) synovial joint.
6. The opposite of opposition is \_\_\_\_\_.
7. The connective tissues that join bone to bone are called \_\_\_\_\_.
8. Movement of the sole of the foot outward so that the soles of the feet face away from each other is called \_\_\_\_\_.

### Short Answer

1. List and define the three joint classifications used to describe joints according to their *function*.
2. List and define the three joint classifications used to describe joints according to their *structure*.
3. Provide examples of the following types of joints and state whether they are *fibrous*, *cartilaginous*, or *synovial*.
4. Describe the three primary functions of synovial fluid.
5. List and provide examples of the six types of synovial joints.
6. Discuss the stability of the ankle joint and why it is the most frequently injured major articulation in the body. In what position is the ankle commonly injured and what structures are typically damaged?
7. Compare and contrast the mobility and stability of the hip and shoulder joints.

8. Describe the four main groups of intrinsic ligaments of the hip and the role each plays in strengthening the joint.
9. Define the following types of movement:
- |                     |                         |                |
|---------------------|-------------------------|----------------|
| a. flexion          | j. horizontal abduction | s. depression  |
| b. extension        | k. horizontal adduction | t. protraction |
| c. hyperextension   | l. plantar flexion      | u. retraction  |
| d. abduction        | m. dorsi flexion        | v. opposition  |
| e. adduction        | n. inversion            | w. reposition  |
| f. circumduction    | o. eversion             |                |
| g. medial rotation  | p. pronation            |                |
| h. lateral rotation | q. supination           |                |
| i. lateral flexion  | r. elevation            |                |
10. Describe the orientation of the two cruciate ligaments and the role each plays in stabilizing the knee joint.

**Multiple Choice**

- |      |       |       |       |       |
|------|-------|-------|-------|-------|
| 1. D | 6. A  | 11. B | 16. B | 21. B |
| 2. B | 7. C  | 12. A | 17. E | 22. D |
| 3. A | 8. A  | 13. E | 18. D | 23. B |
| 4. B | 9. B  | 14. A | 19. D | 24. C |
| 5. B | 10. C | 15. A | 20. A | 25. E |

**Alternate Choice**

- |                  |                |
|------------------|----------------|
| 1. circumduction | 6. diarthroses |
| 2. extension     | 7. retraction  |
| 3. away from     | 8. condyloid   |
| 4. pronation     | 9. "spring"    |
| 5. gomphosis     | 10. posterior  |

**Fill-In**

- |              |               |
|--------------|---------------|
| 1. plantar   | 5. gliding    |
| 2. pivot     | 6. reposition |
| 3. elevation | 7. ligaments  |
| 4. syn-      | 8. eversion   |