**Human Anatomy & Physiology**

**Joint Structure & Movements assignment**

Name and date submitted (3 pts):

Using this handout as a TEMPLATE, create space in between problems below and write or type your answers. KEEP THE SAME NUMBERING or you will have points deducted.

(51 questions, 100 points possible)

Definitions

1. A joint between two bones is also known as an A\_\_\_\_\_\_\_\_\_\_ and an A\_\_\_\_\_\_\_\_\_\_\_\_.
2. The scientific study of joints is termed \_\_\_\_\_\_\_\_\_\_\_\_
3. The study of motion of the human body is called \_\_\_\_\_\_\_\_\_\_\_\_
4. Structurally, joints are classified into (3) types

Fibrous Joints

1. Y/N: Do fibrous joints have a synovial cavity?
2. T/F: Fibrous joints permit a high degree of movement.
3. What are the defining features of ‘sutures’?
4. Where do sutures occur in the body?
5. At what age do sutures become completely fused?
6. What are the defining features of ‘syndesmoses’?
7. T/F: Syndesmoses permit slight movement.
8. Example: where does a syndesmosis occur in the human skull?
9. What are the defining features of ‘Interosseous membranes’?
10. T/F: interosseous membrane joints permit slight movement.
11. Where does an interosseous membrane joint occur in the human leg?

Cartilaginous Joints

1. Y/N: Do cartilaginous joints have a synovial cavity?
2. T/F: Cartilaginous joints permit a high degree of movement.
3. What are the defining features of a ‘synchondrosis joint’?
4. Give two example of a synchondrosis joint in the human body

1. What are the defining features of a ‘symphysis joint’?
2. Where in the pelvic area is there a symphysis joint?

Synovial Joints

1. What is the unique characteristic of a synovial joint?
2. What are the (2) main functions (purposes) of the articular cartilage in a synovial joint?
3. T/F: synovial joints are freely moveable.
4. What membrane provides tensile strength to the joint (keeps the bones from dislocating)?
5. What is the function of ligaments?
6. What is going on physiologically with a ‘double-jointed’ individual?
7. Synovial fluid: What are (4) of its functions?

1. Physiologically speaking, what happens with the synovial fluid when we ‘warm up’ before exercise?
2. Cracking knuckles: Physiologically, what is going on in the synovial cavity when people crack their knuckles?

Injuries

1. Arthroscopic surgery: Write a paragraph explaining this procedure with respect to torn cartilage in the knee.
2. What is the difference between a strain and a sprain?
   1. Strain:
   2. Sprain:

Joint Movements

1. What is meant by “flexion”? Give an example
2. What is meant by “extension”? Give an example
3. What is meant by “hyperextension”? Give an example
4. What is meant by “abduction”? Give an example
5. What is meant by “adduction”? Give an example
6. What is meant by “circumduction”? Give an example
7. Standing, and then rotating the forearm so the palms turn and face forward is S\_\_\_\_\_\_\_\_\_\_.
8. Standing, and then rotating the forearm so the palms turn and face back is P\_\_\_\_\_\_\_\_\_\_\_\_.

Types of Synovial Joints

1. Give (4) examples of hinge joints
2. Give (2) examples of planar joints located in the arm and leg

1. Give an example of a pivot joint in the neck.
2. What is the ‘classic’ example given for a condyloid joint?
3. What are the (2) ‘classic’ examples given for a ball-and-socket joint?

Temporomandibular Joint (Jaw)

1. Which ligament largely prevents displacement of the mandible? La\_\_\_\_\_\_\_\_\_

Shoulder Joint

1. What anatomical features give the shoulder joint ‘more freedom of movement than any other joint’?

Elbow Joint

1. Full name of the tendon which connects the biceps muscle to the forearm \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. Which forearm bone does the biceps muscle attach to? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Hip Joint

1. Full name of the ligament which prevents hyperextension of the hip, and is the strongest ligament in the body \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Knee Joint

1. Full name of the ligament which limits hyperextension of the knee and prevents the tibia from sliding off the femur. It is stretched or torn in 70% of all serious knee injuries. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_