

PER 638 Comprehensive Examination Study Guide – Spring 2020

You will be given 5 questions and you will answer 3 of them for your comprehensive exam.

1. Angular motion and examples of angular motion
2. Linear Motion and examples of linear motion
3. Anatomical Position including joint movements for the lower extremity and the upper extremity from anatomical position, be able to identify anatomical structures that would be considered medial or lateral, proximal or distal, superior or inferior, anterior or posterior, superficial or deep
4. Distinguish the movement of the shoulder joint and the shoulder girdle, be able to describe the components of each
5. Describe the components of the ankle joint, describe the movement in the ankle joint, and tell what components limit the ranges of motion in the ankle
6. Know the three cardinal planes of motion and be able to describe motions in each of those planes
7. Be familiar with the mechanical properties of bone and the load deformation curve
8. Why would the hip be considered a stable joint and the shoulder be considered an unstable joint
9. Explain the properties of muscle including excitability, extensibility, contractility, and elasticity
10. Huxley's sliding filament theory
11. What is the significance of strength training for special populations such as the elderly, adolescents, those with systemic diseases or chronic diseases
12. Acute and chronic conditions and how they relate to use, overuse, and biologic tissues
13. Analysis of upper and lower extremity movements in a functional activity
14. Movements of projectiles and how external forces can be used to affect flight patterns
15. Qualitative and quantitative analysis of movements/instructions for movement/measurements