

系所組別： 物理治療學系

考試科目： 應用肌動學

考試日期： 0308， 節次： 2

※ 考生請注意：本試題 可 不可 使用計算機

1. What is “mechanical advantage (MA)” of the lever? Why is MA important for human kinetics? (10 %)
2. The patella is one component of patellofemoral joint. Please discuss the importance of the patella in the patellofemoral joint. (15 %)
3. The lower extremity alignment is very important for normal gait pattern or for other weight-bearing activities. Please discuss how the lower extremity components, from foot, ankle, tibia, patella, and femur, affect the lower extremity alignment. (i.e. how the tibia and other components above affect by the excessive rearfoot eversion?) (25 %)
4. 請比較訓練肌力、肌耐力、及爆發力方法之異同。在訓練之後又產生了什麼樣的生理變化？ (15%)
5. 動作神經元徵召依據大小原則(size principle)。試以走路和跑步為例，探討不同動作神經元徵召次序。 (15%)
6. 當一個人站立受到平衡干擾時，會有髖策略(hip strategy)及踝策略(ankle strategy)，試比較兩策略之肌肉反應並評論其優缺點。(20%)