

※ 考生請注意：本試題 可 不可 使用計算機

1. From a biomechanical view point, describe the possible causes of low back pain. (20%)
2. Describe the difference between a force-displacement curve and a stress-strain curve for a bone compression test. (20%)
3. From a mechanical view point, describe the difference between elasticity and viscoelasticity. (20%)
4. From a biomechanical view point, describe the three main types of muscles: skeletal muscle, cardiac muscle and smooth muscle. (20%)
5. Refer the figure below and find the joint reaction force, R , and biceps brachii force, B_1 (assuming brachioradialis force, $B_2 = 0$). The forearm is placed horizontally and weight 16N , G . The ball weight is 20N , W . The angles between B_1 and forearm is 67.38° . (Note: $\tan 67.38^\circ = 12/5$; represent R in terms of R_V & R_H) (20%)

