

MSE 2001B Quiz #1, 8-21-2015

Your name (print) KEY Your major _____ Score _____/10

Please **ONLY** use the space of each question to provide your answer. You will have **10 minutes** to work on this quiz. Please sign to confirm that all work on this test is yours and yours only.

Signature _____

Grader: Hunter Ubersox

1. Explain why diamond and graphite have different properties. (5 pts)

① Both diamond & graphite are made of C ($1s^2, 2s^2, 2p^2$) (+1pt)

(+2 pts) ② diamond: sp^3 hybrid orbit → tetrahedron → tough hard

(+2 pts) ③ graphite: sp^2 hybrid orbit - strong-in plane weak-out of plane

2. Do you plan to interact with undergraduate TAs in support of your course work? If so, what are the best approaches interacting with them? Please share your thoughts. (5 pts)