

UM-SJTU JI Fall 2020 VE 320 Quiz 1

Name:

Student ID:

1. What is the difference between diamond lattice and zinc blende lattice?

2. If there are four electrons located in an infinite quantum well with a width of $a=1$ nanometer (10^{-9}m). In the following figure (a) please use black dots to represent the E-k relation of the four electrons. In the following figure (b) and (c), please plot $\Psi(x)$ and $\Psi(x)\Psi(x)^*$.

