

Quiz 2 Submission
Abinash Maharana
2018111033

1. c. Vibrational
2. b. Increases
3. C. $3 < 4 < 1 < 2$
4. A. Infrared radiation is higher in energy than UV radiation.
5. D. $1 < 4 \approx 2 < 3$
6. D. All of the above
7. B. proportional to the strength of the vibrating bond and inversely proportional to the masses of the atoms connected by the bond.
8. A. change in vibrational energy without a change in electronic energy levels.
9. B. asymmetrical stretching/bending
10. C. $12500 - 4000 \text{ cm}^{-1}$
11. A. $f = -kq$
12. A. Force constant
13. C. Force constant of the bond and masses of the atoms
14. A. C-H, C-C, C-O, C-Cl, C-Br
15. B. Frequency of vibrations, asymmetric stretching > Frequency of vibrations, symmetric stretching