**Study Guide for unit 1 test**

You should know the following:

1. All of atomic models
2. All of the periodic trends
3. All quantum numbers
4. Alpha, beta and gamma decay problems
5. Atom
6. Atomic mass problems
7. Atomic number
8. Atomic radius
9. Atomic weight
10. Aufbau principle
11. Be able to find neutrons, protons, electrons, mass number, etc for given elements
12. Bohr model
13. Cathode-ray experiment
14. Dalton’s atomic theory
15. E-configuration
16. Electron affinity
17. Electronegativity
18. Fission and fusion
19. Frequency/wavelength/energy problems
20. Gold foil experiment
21. Half-life problems
22. Heisenberg uncertainty principle
23. Hund’s rule
24. Ionic radius
25. Ionization energy
26. Ions
27. Isotopes
28. Mass number
29. Noble gas stability
30. Noble-gas notation
31. Properties of metalloids
32. Properties of metals
33. Properties of non-metals
34. Relationship between frequency, wavelength and energy
35. Rutherford
36. Thompson
37. Valence electrons