1. Which of the following particles contain more electrons than neutron?

1. 11H. 2. 3517Cl-. 3. 3919K+

A. 1 only B. 2 only C. 1 and 2 only. D. 2 and 3 only

2. The atom with the same number of neutrons as 54 Cr is

A. 50 Ti B. 51V. C. 53Fe D. 55Mn

3. All isotopes of tin (Sn) have the same

1. Number of protons

2. Number of neutron

3. Mass number

A. 1 only B. 2 only C. 3 only. D. 1 and 3 only

4. Which of the following sets represent a pair of isotopes?

A. 614C and 714N B. O2 and O3

C. 1632S and 1632S 2- D. 82206Pl and 82208Pl

5. The atomic and mass numbers for four different nuclei are given in the table below. Which two are isotopes?

Atomic numberMass number

1. 101 258

2. 102 258

3. 102 260

4. 103 259

A. 1 and 2 B. 2 and 3 C. 2 and 4. D. 3 and 4

6. Which special contain 16 protons, 17 neutrons and 18 electrons?

A. 32 S-. B. 33S2- C. 34 S-  D. 35S2-

9. Which electrons transition in a hydrogen atom releases the most energy?

A. n= 2$\rightarrow $ n=1

B. n= 4$\rightarrow $ n=2

C. n= 6$\rightarrow $ n=3

D. n= 7$\rightarrow $ n=6

10. An element has the electrons configuration 2.7. What would be the electrons configuration of an element with similar chemical properties?

A. 2.6 B. 2.8 C. 2.7.1 D. 2.8.7

11. An element with the symbol Z has the electron configuration 2.8.6. Which special is this element most likely to form?

A. The ion Z2+

B. The ion Z6+

C. The compound H2Z

D. The compound Z6F

12. Which ionization requires the most energy?

A. Na(g)$ \rightarrow $ Na+(g)+ e-

B. Na+(g)$ \rightarrow $ Na2+(g)+ e-

C. Mg(g)$ \rightarrow $ Mg+(g)+ e-

D. Mg+(g)$ \rightarrow $ Mg2+(g)+ e-

13. Which of the following atoms in its ground state has the greatest number of unpaired electrons?

A. Al B. Si C.P D. S

14. All of the following factors affect the value of the ionization energy of an atom except the

A. mass of the atom

B. charge on the nucleus

C. size of the atom

D. main energy level from which the electron is removed.