

45. The total number of atoms represented by the formula $K_3Fe(CN)_6$ is
 (A) 4 (B) 10 (C) 11 (D) 16
 (F) 36
46. Using only these formulas,
 XY_2 X_2Z QZ
 what formula would you expect for a compound of elements Q and Y?
 (A) QY (B) QY_2 (C) Q_2Y (D) QY_4
47. The chemical properties of atoms depend principally upon
 (A) their atomic masses.
 (B) the masses of the nuclei involved.
 (C) the number of neutrons in their nuclei.
 (D) the ratio in which the atoms combine with other atoms.
 (E) the number of electrons in their outermost shells.
48. The best explanation of the extreme activity of fluorine as compared to other halogens is that the fluorine atom
 (A) has the smallest atomic radius.
 (B) has the smallest nuclear charge.
 (C) has seven valence electrons.
 (D) is the strongest reducing agent.
 (F) needs one electron to complete its outermost shell.
49. In the periodic table, the metallic character of the elements generally increases reading from
 (A) left to right.
 (B) bottom to top.
 (C) left to right and bottom to top.
 (D) left to right and top to bottom.
 (E) right to left and top to bottom.
50. In which set are the three elements in the same family?
 (A) B, C, N (C) Hg, Ga, Sr
 (B) N, O, F (D) Zn, Cd, Hg
51. If XO_2 is the correct formula for an oxide, the formula for the chloride of X is
 (A) XCl_2 (B) XCl_4 (C) XCl (D) X_2Cl_3
 (E) XCl_3
52. The outermost shell of element X has 3 electrons while that of element Y has 6. The probable formula of a compound of these elements is
 (A) X_3Y_2 (B) X_2Y_3 (C) XY (D) X_2Y
 (E) XY_2
53. Element X forms an oxide whose formula is X_2O . The group to which element X belongs in the periodic table is most likely
 (A) Group 1. (D) Group 6.
 (B) Group 2. (E) Group 7.
 (C) Group 3.
54. What is the probable formula for the oxide of element X in Group 3A of the periodic table?
 (A) X_3O (B) X_2O_3 (C) X_3O_2 (D) X_3O_4
 (E) X_3O_5
55. What is the usual atomic ratio in which Group 1A elements react with those from Group 6A?
 (A) 1:1 (B) 1:2 (C) 1:6 (D) 2:1
 (E) 2:3
56. What is the probable formula for hydrogen selenide?

Atomic Number	
Se	34

- (A) HSe (B) HSe_2 (C) H_2Se (D) H_3Se
 (E) H_3Se_2