Worksheet answers – 5 – reactions in aqueous solution – oxidation numbers and redox

54. a) Br +6, O -2 b) C +3, O -2 c) F 0 d) Ca +2,H -1

e) H +1, Si +6, O -2 f) S +6, O -2

55. a) S +6, F -1 b) H +1, As +5, O -2 c) U +5, O -2 d) N +4, O -2

e) P +5, Cl -1 f) Xe +6, O -2

56.

a) oxidation/reduction; zinc is oxidized, nitrogen is reduced

b) neutralization

c) oxidation/reduction, calcium is oxidized, hydrogen is reduced

57.

a) double replacement

b) oxidation/reduction, calcium is oxidized, oxygen is reduced

c) neutralization

58.

a) magnesium is oxidized and is the reducing agent, oxygen is reduced and is the oxidizing agent

b) carbon is oxidized and is the reducing agent, oxygen is reduced and is the oxidizing agent

c) silicon is oxidized and is the reducing agent, chlorine is reduced and is the oxidizing agent

59.

a) Ca = oxidized, RA; H = reduced, OA

b) Cr = reduced, OA; Sn = oxidized, RA

c) Fe = oxidized, RA; N = reduced, OA; S = oxidized, RA \*\*\*\* You will not get a question like this with two different things being oxidized.