Week 6 Assignment

1. Chemiluminiscence is characterized by the production of short lived photon emitting reaction species during the course of a chemical reaction. This permits the monitoring of
   a) Excited species which emits an electron
   b) Excited species which emits a proton
   c) Excited species which emits a photon
   d) Excited species which emits a neutron
2. Chemiluminiscence is useful to quantify concentrations in the range of 1 – 100 ppb of pollutants. Therefore it is useful in the determination of
   a) Chemical species formed in the upper stratosphere.
   b) Chemical species formed in the troposphere.
   c) Chemical species formed in the biological laboratory.
   d) All of these.
3. Luminol formation is catalyzed by
   a) Cobalt
   b) Copper
   c) Vanadium
   d) Titanium
4. For concentrating arsenic and phosphorus
   a) Ferric hydroxide is used as a collector
   b) Ferrous hydroxide is used as a collector
   c) Ferric chloride is used as a collector
   d) Ferrous chloride is used as a collector
5. When attempting a chemical recovery for spectrophotometry, 90 – 95 % of the analyte is collected. This is satisfactory if the sample is in:
   a) 0.0001 – 0.001 %
   b) 0.001 – 0.01 %
   c) 0.01 – 0.1 %
   d) 0.1 – 1 %
6. Sandell sensitivity gives us a method to compare the efficiencies of the determination of individual parameter for
   a) Method efficiencies
   b) Molar absorptivities
   c) Detection limits
   d) B – 1 range
7. 8 – hydroxy quinoline is a
   a) Specific reagent
   b) Selective reagent
   c) Sensitive reagent
   d) Organometallic reagent
8. Dithizone reacts with a number of transition metal ions by the adjustment of pH and complexing agent. Therefore it can be used to analyse metal ions
   a) Selectively
   b) Specifically
   c) Sensitively
   d) All of these
9. A cook book value is that value which can be obtained under
   a) Ideal conditions
   b) Practical conditions
   c) Optimal conditions

d) By majority of people

10. Characteristic absorption spectra is obtained by
    a) Examining the blank and sample spectra
    b) By editing the derivative spectra
    c) By subtracting the blank spectra from sample spectra at all wavelengths
    d) By dividing the sample by blank.