CONCEPT ORGANIZER 1 - CHAPTER 1

T# = textbook and page number , S#-# = supplement number and page number, = col# = column number

Concept	Reading	Short Answer or Equation
Basic analytical definitions - analyte, concomitant, interference, matrix	T3, col 2; T9	
Q. When is a concomitant not an interference?		
Energy - conversion between forms	T2, S1-1	
Q. state formulae to convert wavelength a) to frequency & b) to energy		
Q. calculate both the **energy** in J and the **frequency** corresponding to wavelength of 400 nm		
Spectral transitions	T4 & T5, col 1	
Q. state mode of excitation for both emission and for photoluminescence techniques		
Blanks and blank signals	T6, col 2; S2-2	
Q. Identify the origin of the signals that the blank measurement is supposed to compensate for		
Atomic vs molecular spectra	T7	

Q. State why molecular bands are broader than atomic lines		
Calibration function	T6	
Q. a) Name of a) plot of analytical signal vs. concentration, b) plot of analytical signal vs. wavelength		a. b.
Figures of merit	T10-11	
Q. What is the difference between the detection limit and the (calibration) sensitivity?		
Q. Is the S/N high or low when the reproducibility of measurements is good?		
Q. If the RSD is 10%, calculate the S/N if noise limiting the precision		
Q. S/N and S/B can be confused with each other. S is the same for both ratios. Explain the difference between N and B in the ratios.		
Q. Can a measurement be precise but not accurate - yes or no?		