Dry Lab 4 Techniques Worksheet

1. Answer the following questions using Dry Lab 4 (Preface to Qualitative Analysis) and the Laboratory Techniques section in the front of your lab manual. (6 pts total)

a. What is the approximate volume of a standard 75-mm test tube?
(Refer to Figure T.7a in Technique 7 and to Figure D4.1 in the Dry Lab)

b. Small volumes of liquid reagents are usually added with what apparatus?
(Refer to Part A of the Dry Lab)

c. What is the approximate number of pipet drops in 1 ml?
(Refer to Part A of the Dry Lab)

d. A precipitate can be broken up (or dispersed) with what apparatus?
(Refer to Part C of the Dry Lab)

e. How can a precipitate can be compacted and then separated from the clear liquid?
(Refer to Technique 11F and Figures T.11g/h)

f. What is name of the clear liquid above the precipitate?
(Refer to Technique 11F)

g. How long does a solution with a precipitate need to be centrifuged?
(Refer to Technique 11F)

h. What actions should never be done to agitate or stir a test tube?
(Refer to Figure T.7b and Technique 7A, along with dry lab discussion)

i. On a flow diagram, the double vertical lines, || , mean what?
(Refer to Part D of the Dry Lab)

j. On a flow diagram, the single horizontal line, —— , means what?
(Refer to Part D of the Dry Lab)

k. On a flow diagram, the double horizontal lines, ═══ , means what?
(Refer to Part D of the Dry Lab)

l. On a flow diagram, the box around an ion means what?
(Refer to Part D of the Dry Lab)

2. Describe how a centrifuge is balanced. (1 pt)
   (Refer to Technique 11F and Figure T.11i)

3. Describe the technique for washing a precipitate. (1 pt)
   (Refer to Part C and Figure D4.2 in the Dry Lab)

4. Describe the procedure for testing if precipitation is complete. (1 pt)
   (Refer to Part B of the Dry Lab)

5. Describe the proper procedure for mixing or agitating the contents of a test tube. (1 pt)
   (Refer to Figure T.7b and Technique 7A, along with dry lab discussion)