Study Guide for Lab Exam 2017

Basic Lab Report Requirements:

-NO PERSONAL PRONOUNS

-Materials should be organized (list or columns)

Procedure

-Number the steps of the procedure

-Be specific in the procedure

-Procedure is written in present tense and starts with a verb (Place, Put, Record) } action word

-Record results and repeat steps (where needed)

-NO PERSONAL PRONOUNS

Results

-Data needs to be presented in an organized, neat manner (use a table with a title) — ruler; headings; use tests in title

-Restate your aim and summarize test results in the conclusion

-NO PERSONAL PRONOUNS

*2 sources of error (that are not silly mistakes: mislabelling or miscalculating)

Lab Tests:

You should KNOW the information in the table as it will not be provided to you in the final (we have done these tests several times)

Test	Method	Used For	Possible Results
Conductivity	-The electrodes of a conductivity meter are placed into 2 drops of the unknown	-Detecting electrolytes, minerals and/or salts in a liquids	-Light flashes quickly (if conducts) -Light flashes slowly -No light
Cobalt Chloride (CCP)	-A piece of cobalt chloride paper is placed in one drop of the unknown -Record any change in colour the is immediate	-Detecting the presence of water -Change in colour means water is present	-Paper **turns** pink (if water) -Paper stays dark blue
pH (RLP and BLP)	-**Blue** litmus paper is placed in the well of plate and one drop of the unknown is dropped on top: **acids** are detected -**Red** litmus paper is placed in the well of plate and one drop of the unknown is dropped on top: **bases** are detected	-If the blue paper turns red it means it is acidic -If the red paper turns blue it means it is basic -If neither changes, the pH is close to 6-7, which is neutral -Both paper tests need to be done in order to determine the pH	-BLP -**Turns** red if acid - Stays blue -RLP - **Turns** blue if base - Stays red
Protein Presence *Make a control*	-Make a control by placing 3 drops of each $NaCO_3$ and $CuSO_4$ -Then repeat this and add 6 drops of the unknown -Wait at least 2 min to observe results	-Detecting the presence of protein -Proteinuria -Protein in blood/urine.	-Stays blue ø protein -**Turns** violet/dark blue/green/ around the edges (noticeable color change must occur) * if protein

Glucose Presence *	-A glucose strip is placed in the in the well with tweezers and one drop of the unknown is added -wait 30 seconds for observations	-Detecting the presence of carbohydrates (colour change) Glucose/Sugar	-**Turns** green (glucose) -Stays yellow (ø glucose)
Salt presence	-Conductivity meter electrodes are placed in the unknown	-Detecting presences of electrolytes	-More than 2 lights will turn on from the conductivity meter (salt) -0 or 1 light goes on
Starch presence	-Lugol's Solution -place 5 drops of Unknown A to a clean, dry well of the spot plate -Add 2 drops of Lugol's solution to the well containing the unknown using the pipette -Stir the solution with a clean stirring rod -Observe if unknown turns green/black and record observations.	-Detecting the presence of starch and determining if amylase (saliva) will have an effect on the substance	-Unknown **turns** green/black/brown (starch) -Turned yellow/orange (no starch)
Fat Presence	-Add 20 drops of Unknown A to the "A" test tube -Using dropper bottle, add 6 drops of ethanol to the "A" test tube -Place thumb over mouth of test tube and shake vigorously side-to-side -Observe for an emulsion (white cloudy appearance)	- Emulsion with Ethanol	-Unknown **turns** clumps, is cloudy, emulsifies (fat) -Stays clear -Stays cloudy (No fat)