Name:_____

QUIM3025L Section:_____ Date:_____

Pre-lab: Introduction to Analytical Technical Writing

Pre-lab Exercise (10 pts) *Include References

1. Using the laboratory information provided on ecourses, prepare an outline of the contents of a full report. Briefly (summarize) describe each section. (2pts)

2. Given the following abstract, identify the sentences that correspond to: Introduction (I), Method (M), Results (R), and Conclusions (C). Note: if the abstract is missing any of the recommended parts, please indicate so. (4 pts)

Title: —Volatile Organic Compounds Determined in Pharmaceutical Products by Full Evaporation Technique and Capillary Gas Chromatography/Ion-Trap Detection Author: Jan Schuberth, National Board of Forensic Medicine, Department of Forensic Chemistry, University Hospital, Sweden

Journal: Analytical Chemistry Volume: 68 Issue: 8 Pages: 1317 -1320

Year: 1996 Abstract:Pharmaceutical products often contain volatile organic compounds (VOCs), which are made up of residual solvents from the manufacturing process and of flavoring additives. These substances may form a "signature" that perhaps could be used to reveal the product source. To study this possibility, a new method for detecting and quantitating VOCs in pharmaceutical preparations is described. It is based on extraction of the dry powder by the full evaporation technique, separation of the VOCs by gas chromatography in a capillary with an apolar stationary phase, and exposure of the compounds by ion-trap detection with the apparatus run in the full-scan mode. The search of some drug substances or pharmaceutical products for VOCs revealed ethanol, acetone, 2-propanol, methyl acetate, toluene, eucalyptol, and menthol, whose concentrations were in the range 0.008-26 mmol/kg of sample. The within-day or between-day precision studies showed, except for methyl acetate, a relative standard deviation less than 13%. The concentrations for the different compounds were at the limit of detection or of quantification in the range 0.4 - 4.0, respectively, 1-10 mol/kg of sample. Based on the quantitative data, distinct signatures were obtained from synonymous medicines made by four diverse producers. The data indicated that the method provides a means for disclosing the origin of a drug product.

3. Print the information found in the following sites and bring to the laboratory: (1pt) *Attach a copy of the first page of both references to your prelab

a. Quick ACS Style Guide (a Penn State Library resource)
https://www.libraries.psu.edu/content/dam/psul/up/pams/documents/QuickGuideACS.pdf

b. Author's Guide to Analytical Chemistry:
http://pubs.acs.org/paragonplus/submission/ancham/ancham_authguide.pdf

4. Using the guidelines provided, write the correct format of the following resources: (3 pts)

a. Analytical Chemistry, David Harvey (online version)

b. class textbook

c. the article mentioned above in #2

Hints:

A. References use different font formats: eg. Italics, bold. Use appropriately.

B. Journal titles are generally abbreviated when they consist of more than one word. For the appropriate Chemical Abstracts Service Source Index (CASSI) abbreviations, access the following resource: Science and Engineering Journal Abbreviations (a Univ. British Columbia resource) at: http://scieng.library.ubc.ca/coden/

5. References