**CHE 2060: Pre-lab quiz for distillation and extraction of eugenol - KEY**

*Due upon your arrival in lab.*

*Read the lab materials and the text and search engines to find answers to these questions.*

1. How does steam distillation differ from simple or fractional distillation?

2. What factor is critical when choosing a solvent for extraction for this technique?

3. Describe a Hickman still head. How does it work?

4. Why is dehydration of the distillate particularly important in this case?

5. Should eugenol test positive for unsaturation? Draw the structure and identify its unsaturation.

6. Draw the product that would be produced by the bromine unsaturation test of eugenol.

7. Draw the product that would be produced by the permanganate unsaturation test of eugenol.

8. What’s the difference between phenol and enol groups? Draw each.

9. What is ‘coordination’ of metal ions by organic compounds?

10. Draw the coordination of an iron (III) ion by two or more molecules of phenol.