

## Point Distribution

| <u>Experiment</u>                                                                    | <u>Report</u> | <u>Product</u> | <u>Unknown</u> |
|--------------------------------------------------------------------------------------|---------------|----------------|----------------|
| Melting-Point Analysis                                                               | 2             |                | 3              |
| Recrystallization of Acetanilide                                                     | 2             | 3              |                |
| Simple Distillation of $\alpha$ -Pinene                                              | 2             | 3              |                |
| Conformational Analysis with Molecular Modeling Software                             | 4             |                |                |
| Fractional Distillation of Cyclohexane and Toluene With and Without a Vigreux Column | 2             |                |                |
| Acid-Base Extraction of Benzil and Benzoic Acid                                      | 2             | 6              |                |
| Thin-Layer Chromatography (TLC)                                                      | 2             |                | 3              |
| Separation of Cholesterol and a Cholesteryl Ester by Column Chromatography           | 2             | 6              |                |
| Acid-Catalyzed Dehydration of 2-Methylcyclohexanol                                   | 2             | 3              |                |
| Stereoselective Reduction of 4- <i>tert</i> -Butylcyclohexanone                      | 2             | 3              |                |
| Infrared (IR) Spectroscopy                                                           | 8             |                | 2              |
| Nuclear Magnetic Resonance (NMR) Spectroscopy                                        | 8             |                | 2              |

| <u>Category</u>                                       | <u>Maximum Points</u> |
|-------------------------------------------------------|-----------------------|
| Laboratory Notebook: Pre-Lab Preparation              | 9                     |
| Laboratory Notebook: In-Lab Observations              | 9                     |
| Laboratory Notebook: Post-Lab Conclusions             | 9                     |
| Pre-Lab Preparation for Molecular Modeling Experiment | 3                     |
| Pre-Lab Preparation for IR Experiment                 | 3                     |
| Pre-Lab Preparation for NMR Experiment                | 3                     |
| Laboratory Technique                                  | 10                    |
| Reports                                               | 38                    |
| Products                                              | 24                    |
| Unknowns                                              | 10                    |
| <u>Quizzes</u>                                        | <u>42</u>             |
| Total                                                 | 160                   |