

|   |  | Criteria   |  |                 | NOTES  |
|---|--|--|--|-----------------|--|
| Component   |  | Marginal (1)   | Acceptable (2)   | Exceptional (3) |  |
| <b>1 Summary</b>  |  |  |  |                 |  |
| 1. Describes the goals of the experiment  | Identifies one goal of the lab                                     | Identifies most of the goals   | Clearly identifies the goals of the laboratory   |                 |  |
| 2. Describe the materials and methodology   | Describes one of the items   | Describes two of the items   | Accurately describes the materials and methods. Identify some of the challenges in viscoelasticity testing |                 |  |
| 3. Describe the model we are using in the experiment and how to calculate each parameter                | Partially describes one.   | Accurately describes one of the items                                  | Accurately describe the model; BRIEF overview on how to calculate each parameter                           |                 |  |
| 4. Identify the major findings of the experiment  | Identify one major items   | Identify two major items   | Identify the major findings  |                 |  |
| <b>2 Results</b>  |  |  |  |                 | Table captions = above<br>Figure captions = below<br><br>Summary table should be memo, figures should be in appendix<br><br>To convert from displacement to strain, divide by initial length (for clip gage this is 25.4mm)<br><br>Remember to cite sources for Literature Young's Modulus |
| 1. Figure 1: provide the strain time response of the three materials                                    | Doesn't convert values to strain                                   | Values are incorrect, but shape is correct.                            | Values and shape of the curves are correct.  |                 |  |
| 2. Provide excel sheets in the appendix that calculation of 4 viscoelastic parameters for each material | Trends are correct, but values are incorrect                       | Calculates at least one of the components correctly                    | Accurately calculates the parameters for the different materials   |                 |  |
| 3. Table 1: the parameters calculated and compare E1 to literature values for Young's modulus           | Poor table formatting  | Does not compare to literature values                                  | Prepares table of the parameters; compares E to literature values of Young's Modulus                       |                 |  |
| <b>3 Format and Clearly Organized</b>   | Not organized clearly. More than one page                          | Not formatted as a memo, but is well structured                        | Proper memo format; good organization. ONE PAGE OR LESS  |                 |  |
| <b>4 Format, Units, General</b>   | Poor formatting. Mixed units. Improper use of significant figures. | Average formatting. Proper units. Improper use of significant figures. | Professional formatting. Proper units. Proper significant figures.   |                 |  |

The total for this lab report is 27 points.