

Engineering Materials (MSE-220)
Assignment #3

- 1- Explain the differences between yield strength and tensile strength.
- 2- How is elastic modulus obtained from a stress-strain diagram?
- 3- Explain the difference between elastic limit, engineering yield strength, and true yield strength.
- 4- Explain how percent elongation and percent reduction in area are measured and what they are used for.
- 5- Explain how you would assess a material's impact characteristics from a tensile test.
- 6- What is resilience and where is it used?
- 7- Explain the difference between shear stress and tensile stress.
- 8- How do you measure shear strength?
- 9- Explain the concept of endurance limit and how it is obtained. Give an example of its use.
- 10- Which manufacturing technique produces the lowest Roughness (Ra)?
 - a. milling
 - b. lapping
 - c. planning
 - d. grinding
 - e. time saver
 - f. scraping