

1. What is meant by Materials Science and Engineering? Why is it important to study this discipline? *20 points*
2. How would you define material properties? List some of the mechanical, electrical, thermal, and magnetic properties? *20 points*
3. How would you define microstructure (or structure)? Give an example of how material properties can be influenced by the material internal structure? *20 points*
4. How would you classify materials, give examples? List some of the typical properties for each type? *20 points*
5. Give a brief explanation for each of the following terms: “nanomaterials”, “materials by design”, and “piezoelectric materials”? *20 points*