

## Immunity and DNA Technology Chapter Questions

### Ch 43 Questions: Immune System

1. Summarize the chart on p.931 (Fig.43.2)
2. List all the cells involved in the immune response and their functions.
3. What is the difference between a B cell and T cell?
4. What is the role of the major histocompatibility complex (MHC) and how does it function?
5. Read and copy the chart on p.942.
6. What is an antibody and what is the structure?

### Ch20 Questions

1. What is recombinant DNA technology and genetic engineering?
2. Briefly explain the steps of gene cloning and its uses.
3. How are restriction enzymes used in DNA technology?
4. What is PCR used for and briefly explain the steps.
5. How do the DNA fragments move through the gel in gel electrophoresis? What is the purpose of using gel electrophoresis?
6. Briefly explain the steps of animal cloning.
7. What is RFLPs?
8. What is gene therapy?

### Ch21 Questions

1. What is bioinformatics?
2. Explain the 3-stage approach to sequencing the entire human genome.
3. How does genome size, number of genes, and gene density compare between the 3 domains? (Don't need to list specific numbers)
4. What is a transposon and how can they affect the organism?
5. In general, how do duplication, rearrangement, and mutations contribute to genome evolution?