Microbiology Learning Objectives C17 Adaptive Immunity: Specific Defenses of the Host

- 1. Differentiate innate from adaptive immunity. Is a vaccination innate or adaptive?
- 2. Differentiate humoral from cellular immunity. Why do we need both?
- 3. Define antigen, epitope, and hapten.
- 4. What is the function of antibodies? (two functions)
- 5. Compare and contrast T-dependent and T-independent antigens.
- 6. Differentiate B-cells from plasma cells from memory cells.
- 7. What is clonal selection?
- 8. What are the four outcomes of an antigen-antibody reaction?
- 9. What is the function of M cells, Helper T cells, cytotoxic T cells, regulatory T cells, CTLs, and Natural Killer cells?
- 10. What is apoptosis? What other name describes it function?
- 11. What is an antigen presenting cells? The cell types?
- 12. What is the function of MHC proteins? Types?
- 13. What is the function of the cytokines, interleukine, chemokines, interferon, TNF, and hematopoietic cytokines?
- 14. Distinguish a primary from a secondary immune response?
- 15. What are the four types of adaptive immunity?