

Unit 4 Objectives: Principles of Serologic Testing in

1. State the two most common mechanisms of exposure to blood group antigens.
2. State the 2 classes of antibodies of most importance in blood banking and state the differences between them so far as temperature of reactivity and ability to cause agglutination
3. State the biomolecular and physical forces involved in
4. Define “prozone”, “postzone”, and “zone of equivalence”.
5. Define “agglutination” and “hemolysis” and state why these are considered positive reactions.
6. Describe the principle of the “solid phase adherence” test.
7. List and describe the two stages of agglutination.
8. List and describe 5 variables which may be altered to enhance the *first* stage of agglutination.
9. List and describe 3 variables which may affect the *second* stage of agglutination.
10. State the principle of the anti-human globulin test.
11. Draw a picture which illustrates the principle of the anti-human globulin test.
12. Describe the two methods used to prepare AHG serum: animal inoculation and monoclonal preparation.
13. Describe the contents and use of the three different types of AHG serum: polyspecific, monospecific anti-IgG, and monospecific anti-C3d.
14. State the principle and purpose of the DAT and IAT procedures and draw a picture which illustrates the principle of the 2 procedures.
15. List the steps involved in the performance of the DAT and IAT procedures.
16. List and describe 11 possible causes of false negative reactions in the DAT and IAT procedures.
17. List and describe 7 possible causes of false positive results in the DAT and IAT procedures.
18. State the role complement plays in the antiglobulin