Unit 7 Objectives:Rh Blood Group System

1. List the alleles (antigens) of the Rh blood group system.
2. List the alleles (antigens) of the Rh blood group system.
3. State the names of the individuals responsible for identifying the Rh system.
4. Explain how the term "Rh" factor first came to be used.
5. Describe the clinical significance of the D antigen.
6. Define "immunogenicity".
7. Describe and compare the Fisher-Race, Wiener, Rosenfield and Tippett theories of inheritance of the Rh system.
8. Given a phenotype, determine the most probable Rh genotype in both Fisher-Race and Wiener shorthand.
9. Describe why it is important to know the race of an individual when determining an Rh genotype.
10. Describe the three different ways that the weak D phenotype occurs.
11. Explain the significance of weak D individuals blood donors.
12. Explain the significance of weak D individuals as blood recipients.
13. Define "compound antigen" and give one example found in the Rh system.
14. Describe the “f” and “G” antigens and the antibodies produced.
15. Describe the D deletion genotypes and the problems these genotypes may cause.
16. Describe the phenotype and problems caused in individuals of the Rh null phenotype.
17. Describe the LW system including antigen and antibodies involved.
18. Give an example of a variant Rh antigen.
19. State the immunoglobulin class of most Rh antibodies, how the antibodies are detected *in-vitro*, and how immunization to these antigens occurs.
20. Define "concomitant antibodies" and give one example that is of critical importance.
21. Describe the 4 types of antisera available for D typing including preparation and uses.
22. Describe the control seras used in the D typing test and when they are required.
23. State three precautions which must be considered when using Rh typing sera.
24. List 5 causes of false positives and 5 causes of false negatives when performing Rh antigen typing.