Review Sheet

Part 1: Blood Vessel Structure and Function

Structure of Blood Vessel Walls
1. Describe the three layers that typically form the wall of a blood vessel, and state the function of each.
2. Define vasoconstriction and vasodilation.

Arterial System
3. Compare and contrast the structure and function of the three types of arteries.

Capillaries
4. Describe the structure and function of a capillary bed.

Venous System
5. Describe the structure and function of veins, and explain how veins differ from arteries.

Part 2: Physiology of Circulation

Introduction to Blood Flow, Blood Pressure, and Resistance
6. Define blood flow, blood pressure, and resistance, and explain the relationships between these factors.

Systemic Blood Pressure
7. Describe how blood pressure differs in the arteries, capillaries, and veins.

Maintaining Blood Pressure
8. List and explain the factors that influence blood pressure, and describe how blood pressure is regulated.

Blood Flow Through Body Tissues: Tissue Perfusion
10. Explain how blood flow is regulated in the body in general and in specific organs.
11. Outline factors involved in capillary dynamics, and explain the significance of each.
12. Define circulatory shock. List several possible causes.
Part 3: Circulatory Pathways: Blood Vessels of the Body

The Two Main Circulations of the Body

13. Trace the pathway of blood through the pulmonary circuit, and state the importance of this special circulation.
14. Describe the general functions of the systemic circuit.

Principal Vessels of the Systemic Circulation

15. Name and give the location of the major arteries and veins in the systemic circulation.
16. Describe the structure and special function of the hepatic portal system.

Developmental Aspects of Blood Vessels

17. Explain how blood vessels develop.
18. Provide examples of changes that often occur in blood vessels as a person ages.