**Suggested Answers to Assignments, Chapter 32, The Cardiovascular System**

| Written Assignments | Learning Objective(s) |
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| Assignment #1. Students complete Chapter 32 of s*Lippincott Workbook for Nursing Assistants*. | 1–6 |
| Assignment #2. Students’ diagrams showing the correct flow of both the pulmonary and systemic circulation should follow Figure 32-8 in the textbook. Structures should be correctly labeled. | 1 |
| Assignment #3. Students’ responses could include the following:   * Age * Sex * Heredity * Body build * Smoking * Being physically inactive * Having a Body Mass Index (BMI) above 25.0 * Consuming a diet high in saturated fat, cholesterol, and sodium * Having poorly controlled hypertension * Having poorly controlled diabetes | 4, 5 |

| Group Assignments | Learning Objective |
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| Assignment #1. Students will auscultate each other’s heart listening for the heartbeat and identifying the sounds “lub” and “dub.” Students will describe these sounds as:   * Lub is the sound of the tricuspid and mitral valves snapping shut during ventricular diastole. * Dub is the sound of the pulmonary and aortic valves snapping shut during ventricular diastole. | 2 |
| Assignment #2. Students will be given the following five venous disorders and will supply the causes, signs, and symptoms:   1. Varicose veins  * Caused by pooling of blood in veins, especially veins in the lower legs * Veins become swollen and “knotty” in appearance * Person may have pain, aching, swelling, or feeling of heaviness in the legs  1. Phlebitis  * Caused by pooling of blood in a vein * The lining of the vein becomes inflamed * Skin over the area is reddened, and feels hard and hot to the touch. * Person may have pain  1. Venous thrombosis  * Blood clots that form in superficial or deep veins * Blood is moving too slowly, and when blood pools, clots can form * In deep veins, pain, redness, swelling, and warmth can be present with a deep vein thrombosis * Can cause a pulmonary embolism  1. Thrombophlebitis  * Caused by clots that form in superficial or deep veins * Lining of the vein becomes inflamed * Person may have pain, swelling, warmth of the lower leg  1. Venous stasis ulcers  * Seen on lower legs, usually in the ankle area * The pressure of pooled blood in veins forces plasma out of the blood vessels and into surrounding tissue * Swelling occurs, and the skin becomes fragile and inflamed * Skin breaks down, resulting in an open sore | 5 |

| Clinical Assignment | Learning Objective |
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| Assignment #1. Students should tell the instructor the following signs and symptoms they will be observing for and reporting immediately to the nurse and to the instructor:   * Complaints of chest pain or pressure * Labored or difficult breathing * A rapid or erratic pulse * A slow, weak pulse * A blood pressure reading that is either much higher or much lower than the person’s usual reading * Cyanosis of the face, lips, or fingers * Decreased tolerance for usual exertion * Red, painful, or swollen areas in the extremities, especially the calves of the legs * Unusual swelling of the legs, especially if it is accompanied by red, shiny skin * Dusky coloring of the legs, especially if it is accompanied by a diminished pulse and coldness of the skin | 5 |

| Web Assignment | Learning Objective |
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| Assignment #1. Students can enter “heart-healthy diet” to find  websites such as the American Heart Association’s:  <http://www.heart.org/HEARTORG/GettingHealthy/NutritionCenter/Nutrition-Center_UCM_001188_SubHomePage.jsp> | 4 |