**Suggested Answers to Assignments, Chapter 30, The Musculoskeletal System**

| Written Assignment | Learning Objective(s) |
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| Assignment #1. Students complete Chapter 30 of *Lippincott Workbook for Nursing Assistants.* | 1–9 |

| Group Assignments | Learning Objective(s) |
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| Assignment #1. Students should name and perform the following range-of-motion exercises:   * Neck   + Side-to-side flexion   + Flexion and extension   + Rotation * Shoulder   + Forward flexion and extension   + Abduction and adduction   + Horizontal abduction and adduction   + Rotation * Elbow   + Flexion and extension   + Pronation and supination * Wrist   + Flexion and extension   + Radial and ulnar flexion * Fingers   + Flexion and extension   + Abduction and adduction * Thumb   + Flexion and extension   + Abduction and adduction   + Opposition * Hip   + Flexion and extension   + Abduction and adduction   + Rotation * Knee   + Flexion and extension * Ankle and foot   + Dorsiflexion and plantar flexion   + Inversion and eversion * Toes   + Flexion and extension   + Abduction and adduction | 3, 8, 9 |
| Assignment #2. Obtain a large fresh bone from a local butcher and have it sawn lengthwise so students can observe the different types of bone (spongy and hard), the marrow cavity, the artery and vein, and the articular cartilage. | 2 |
| Assignment #3. Obtain a model skeleton. Assist the students to identify the bones of the skeleton using the figures in their textbook. Demonstrate the range of motion of the joints for the students. | 1, 3 |

| Clinical Assignments | Learning Objective(s) |
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| Assignment #1. Students will follow the care plans for the residents or patients requiring a specific amount of activity and exercise. Discussion will include:  Effects of aging on the musculoskeletal system:   * Loss of bone tissue * Loss of muscle mass * Wear and tear on the joints   Importance of physical activity and exercise:   * Decreased use leads to decreased strength and flexibility * Stimulates the storage of extra calcium to maintain bone strength * Improves blood flow, allowing more nutrients and oxygen to be carried to the musculoskeletal tissues * Retains muscle strength * Improves flexibility of the joints leading to decreased stiffness, aches, and pains | 6 |
| Assignment #2. Students will observe and report to you and the nurse any of the following observations:   * The person has fallen * An area has become swollen, red, bruised, tender, or painful to touch * The person complains of pain when moving a joint * A person’s range of motion has decreased * The person limps or has pain while walking, or makes excuses to avoid walking * The person guards or rubs a joint, even when not moving * The person has decreased muscle strength | 7 |

| Web Assignment | Learning Objective(s) |
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| Assignment #1. Students can enter “hip fracture statistics” to find such web sites as:  <http://www.cdc.gov/HomeandRecreationalSafety/Falls/adulthipfx.html> | 7 |