1. Pulse oximeters were first used to monitor patients
   a. during surgery.
   b. on critical care units.
   c. during interfacility transport.
   d. on mechanical ventilation.

2. Before pulse oximetry was available, hypoxemia was detected primarily by
   a. auscultating the heart for tachypnea.
   b. measuring hemoglobin and hematocrit levels.
   c. auscultating the lungs for dyspnea.
   d. assessing the skin for cyanosis.

3. A pulse oximeter works by comparing the amounts of red light and what other type of light that are absorbed by arterial hemoglobin?
   a. ultraviolet
   b. white
   c. infrared
   d. blue

4. Adhesive or foam-wrap pulse oximeter sensors are preferred for patients who
   a. are immobile.
   b. are at low risk for cross-contamination.
   c. need spot-check monitoring only.
   d. require continuous monitoring for more than 10 minutes.

5. On room air, a fit and healthy person assessed by pulse oximetry should have an arterial oxygen saturation (SpO2) level of at least
   a. 99%.
   b. 97%.
   c. 94%.
   d. 92%.

6. Tissue oxygenation is indicated by which of the following measurements?
   a. arterial partial pressure of oxygen (PaO2)
   b. arterial oxygen saturation when measured directly
   c. SpO2
   d. mixed venous oxygen saturation

7. An SpO2 level of 90% or below correlates with a PaO2 of
   a. between 90 and 100 mmHg.
   b. between 75 and 89 mmHg.
   c. between 61 and 74 mmHg.
   d. below 60 mmHg.

8. The Society of Critical Care Medicine recommends intermittent (spot-check) pulse oximetry monitoring for most patients who are
   a. unstable.
   b. on hemodialysis.
   c. on supplemental oxygen.
   d. undergoing surgery.

9. Pulse oximetry is contraindicated in a patient who
   a. is hypovolemic.
   b. is receiving conscious sedation.
   c. has a tracheostomy.
   d. is classified as morbidly obese.

10. Of the following, which is most likely to cause falsely low pulse oximeter readings?
    a. smoke inhalation
    b. carbon monoxide poisoning
    c. motion artifact
    d. recent exposure to diagnostic imaging dyes

11. Cardiac arrhythmias, heart failure, and hypotension alter pulse oximetry readings because these conditions cause
    a. turbulent blood flow.
    b. motion artifact.
    c. sensor inconsistencies.
    d. decreased perfusion.

12. Disposable sensors should be replaced every
    a. 8 hours.
    b. 12 hours.
    c. 24 hours.
    d. 48 hours.

13. A documented cause of falsely high pulse oximeter readings is
    a. artificial fingernails.
    b. fluorescent light.
    c. vasoactive drugs.
    d. dark skin pigmentation.

14. According to 1 expert, oximeters respond to a drop in SpO2 most quickly when the sensor is placed on the patient’s
    a. earlobe.
    b. forehead.
    c. finger.
    d. toe.

15. When using a reusable sensor, the site should be changed every
    a. 2 hours.
    b. 4 hours.
    c. 6 hours.
    d. 8 hours.

16. Covering the sensor with the patient’s linens helps prevent possible interference from
    a. skin complications.
    b. poor circulation.
    c. ambient light.
    d. motion artifact.