Emory University School of Medicine
Radiation Safety Exam for Medical Imaging Students

Name: ___________________________________________ Date: ______________________

Instructions: Select the best answer based on your review of “Radiation Safety Training for Medical Imaging Students.” Turn in this exam and a completed Personnel History Form to your supervisor.

1. Which of the following is not a type of radiation?
   a) Alpha particles
   b) Beta particles
   c) Omega particles
   d) Gamma rays

2. What is the whole body dose limit for radiologic technologists?
   a) 1000 millirem per year
   b) 5000 millirem per year
   c) 15000 millirem per year
   d) There is no limit for RTs

3. Which of the following orientations for dosimeters is correct?
   a) The body badge underneath the lead apron, the collar badge underneath the thyroid shield
   b) The body badge underneath the lead apron, the collar badge unshielded near the head
   c) Both body and collar badges clipped to the outside of the lead apron
   d) Badges? We don't need no stinking badges!

4. Which of the following statements is true?
   a) Any amount of radiation, no matter how small, is dangerous to a fetus
   b) Patients must have pregnancy tests prior to routine radiographs
   c) Large acute doses of radiation can be harmful to a fetus
   d) The Radiation Safety Officer does not need to be informed of a fetal exposure

5. Which of the following situations would produce the highest risk of skin injury?
   a) Wide gap between patient and I.I., separator cone removed, continuous mode
   b) Wide gap between patient and I.I., separator cone in place, pulse mode
   c) Narrow gap between patient and I.I., separator cone removed, continuous mode
   d) Narrow gap between patient and I.I., separator cone in place, pulse mode

6. Why are many fluoroscopic injuries misdiagnosed?
   a) Physicians are often unaware of how to minimize dose
   b) Patients are not informed of risks
   c) Long latency period of radiation effects
   d) All of the above

7. Generally, in what order would you expect to see the following clinical skin effects following radiation injury?
   a) Epilation, desquamation, erythema, ulceration
   b) Erythema, epilation, desquamation, ulceration
   c) Desquamation, erythema, ulceration, epilation
   d) Erythema, desquamation, epilation, ulceration

8. What information should be in a patient's chart regarding a particular fluoroscopy procedure?
   a) Beam on-time
   b) Projection
   c) kVp and mA settings
   d) All of the above

9. All patients are equally sensitive to the effects of ionizing radiation.
   a) True
   b) False

10. How is a radiologic technologist's dose determined?
    a) By combining the readings from the collar and body badges
    b) By using only the collar badge; shielded radiation readings are not used
    c) By leaving the badges in the radiography suite
    d) By the Radiation Safety Officer, using an ionization chamber