

Name (print) \_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_

### **Annual Refresher Training**

1. As the distance increases, the radiation intensity at the object:
  - a. Increases
  - b. Decreases
  - c. Remains the same
  - d. First increases then quickly decreases
  
2. The greater the density of an object:
  - a. The more radiation it will deflect.
  - b. The more it will fluoresce.
  - c. The less radiation it will absorb.
  - d. The more radiation it will absorb.
  
3. Cellular and subcellular effects of radiation may include:
  - a. changes in the plasma membrane permeability
  - b. increased number of beneficial mutations
  - c. enhanced bonding of oxygen by hemoglobin
  - d. all of the above
  
4. Radiation sensitivity of cells varies with the phase of the cell cycle. It is generally accepted that during mitosis individual cell sensitivity is:
  - a. lowest (the cell is most resistant)
  - b. highest (the cell is most sensitive)
  - c. intermediate
  - d. no different from the S phrase.
  
5. During fluoroscopy, the greatest amount of scattered radiation to the operator originates:
  - a. at the fluoroscopic screen
  - b. at the table top
  - c. in the patient
  - d. in the air space between the patient and the fluoroscopic screen
  - e. in the tube housing

6. Which of the following is NOT a property of X-rays?
- They can penetrate opaque material.
  - They can stimulate or destroy living tissue.
  - They can be seen and felt.
  - They can produce fluorescence in certain chemical compounds.
7. One (some) of the effects of radiation on the cell is (are):
- chromosomal aberrations
  - mitotic cessation
  - nuclear disintegration
  - all of the above
  - a and b only
8. For radiation protection purposes, which of the following should be used by the fluoroscopist?
- small field size
  - lead/rubber shields
  - high mA, low kVp
- I
  - I, II
  - I, II, III
  - II, III
  - III
9. Environmental radiation is typically referred to as \_\_\_\_\_ radiation.
- external
  - internal
  - scattered
  - secondary
  - background
10. Fluoroscopic table tops should be \_\_\_\_\_ from the target of a mobile fluoroscopic unit.
- 12 cm
  - 15 cm
  - 18 inches
  - 38 cm
  - 12 inches