RA202 rad protection class three

True/False
Indicate whether the sentence or statement is true or false.

____ 1. Gray is the SI unit of measure equivalent to RAD
____ 2. 1R *(2.58 x 10^{-4}) = 1C/kg
____ 3. Sievert is the SI unit of measurement that is equivalent to RAD
____ 4. The advantages of the OSL include the ability to measure radiation doses as low a
1 mrem.
____ 5. A film badge contains a tiny film.
____ 6. TLD’s can be used for up to 3 months before processing.
____ 7. Pocket dosimeters are used in low radiation areas.
____ 8. The OSL is the newest and most accurate personal dosimeter.
____ 9. Some badges such as TLD’s can provide false readings if exposed to sources of heat
____ 10. Your radiation history should transfer to employers to keep a cumulative dose.

Multiple Choice
Identify the letter of the choice that best completes the statement or answers the question.

____ 11. Where should the technologist wear a radiation monitor during fluoroscopy?
   a. at the collar outside the lead apron
   b. at the collar inside the lead apron
   c. at the waist outside the lead apron
   d. at the waist inside the lead apron

____ 12. The radiographer's occupational dose should be recorded in what units?
   a. roentgen
   b. curie
   c. rad
   d. rem

____ 13. The dose used to measure radiation "in air" is the:
   a. Roentgen
   b. rad
   c. rem
   d. curie

____ 14. Most of the radiographer's exposure is due to:
   a. leakage radiation
   b. primary-beam radiation
   c. scatter from the patient
   d. off-focus radiation

____ 15. The purpose of filters in a film badge is
   a. to eliminate harmful rays
   b. to measure radiation quality
   c. to prevent exposure by alpha particles
   d. as a support for the film contained within
16. Which of the following personnel radiation monitors will provide an immediate reading?
   a. TLD  
   b. film badge  
   c. lithium fluoride chips  
   d. pocket dosimeter

17. Under what circumstances might a radiographer be required to wear two dosimeters?
   1. pregnancy
   2. while performing UGI procedures
   3. while performing mobile radiography
   a. 1 only  
   b. 2 only  
   c. 2 and 3 only  
   d. 1, 2 and 3

18. Which of the following is a measure of dose equivalency and used to express occupational exposure?
   a. roentgen  
   b. rad  
   c. rem  
   d. RBE

19. 100 rad is equal to
   a. 1Gy  
   b. 1Sv  
   c. 1C/kg  
   d. 1 rem

20. Protective devices such as lead aprons function to protect the technologist from
   1. scattered radiation
   2. the primary beam
   3. remnant radiation
   a. 1 only  
   b. 1 and 2  
   c. 1 and 3  
   d. 1, 2 and 3

21. What is the established fetal dose-limit guideline for pregnant radiographers during the entire gestation period?
   a. .1 rem  
   b. .5 rem  
   c. 5.0 rem  
   d. 10.0 rem

22. In which period of development is the fetus most radiosensitive?
   a. first trimester  
   b. second trimester  
   c. third trimester  
   d. fourth trimester

23. The NCRP recommends an annual effective occupational dose equivalent limit of
   a. 2.5 rem  
   b. 5 rem  
   c. 10rem  
   d. 20 rem

24. If an individual received 45 mR while standing at 4 feet from a source of radiation for 2 minutes, which of the options listed below will most effectively reduce his or her radiation exposure?
   a. standing 6 feet from the source for 2 minutes  
   b. standing 5 feet from the source for 1 minute  
   c. standing 4 feet from the source for 3 minutes  
   d. standing 6 feet from the source for 2 minutes

25. Primary radiation barriers must be at least how high?
   a. 5 feet  
   b. 7 feet
b. 6 feet
d. 8 feet

26. What is the established fetal dose limit guideline for pregnant radiographers during the entire gestation period
a. 0.1 rem
c. 5.0 rem
b. 0.5 rem
d. 10.0 rem

27. The NCRP recommends an annual effective occupational dose equivalent limit of
a. 2.5 rem
c. 10 rem
b. 5 rem
d. 20 rem

28. Which of the following are types of dosimeters
a. OID
c. OSL
b. TMJ
d. QRS

29. Which of the following are guidelines for using a dosimeter
1. never wear another person’s badge
2. do not intentionally expose to radiation
3. wear dosimeter at collar level
a. 1 only
c. 1 and 2 only
b. 2 only
d. 1, 2 and 3

30. Which of the following are dosimeters for high exposures
a. OSL
c. film badge
b. TLD
d. Pocket Dosimeter
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Answer Section

TRUE/FALSE

1. ANS: T
2. ANS: T
3. ANS: F
4. ANS: T
5. ANS: T
6. ANS: T
7. ANS: F
8. ANS: T
9. ANS: T
10. ANS: T

MULTIPLE CHOICE

11. ANS: A
12. ANS: D
13. ANS: A
14. ANS: C
15. ANS: B
16. ANS: D
17. ANS: A
18. ANS: C
19. ANS: A
20. ANS: A
21. ANS: B
22. ANS: A
23. ANS: B
24. ANS: B
25. ANS: C
26. ANS: B
27. ANS: B
28. ANS: C
29. ANS: D
30. ANS: D