

1. Which type of radiation is used for sterilization of medical equipment?
 - a. alpha
 - b. gamma
 - c. beta
 - d. neutron

Answer: B

2. T or F - Radiation kills cells by disrupting burning them.
 - a. True
 - b. False

Answer: B

3. Which statement is true about radioisotope use in new drug research?
 - a. They are forbidden because of contamination concerns.
 - b. They are usually beta emitters.
 - c. They are used because they decay away and no longer have an effect.
 - d. They are used to trace the drug.

Answer: D

4. T or F - X-rays provide excellent detail for organ imaging.
 - a. True
 - b. False

Answer: B

5. CT scans are generated by _____.
 - a. radioactive sources
 - b. electric current
 - c. bright light
 - d. positron emission

Answer: B

6. MRIs differ from X-rays in that they _____.
- a. are less expensive
 - b. they use a different source of radiation
 - c. do not produce radiation
 - d. are faster

Answer: C

7. X-rays are created by _____.
- a. high energy gamma sources
 - b. large magnets
 - c. radioactive particles
 - d. electrical current

Answer: D

8. Bones and empty spaces are easily identifiable using X-rays because of their _____.
- a. large differences in density
 - b. absorption capabilities
 - c. location in the body
 - d. air spaces

Answer: B

9. T or F - CT scans are useful in bone injuries.
- a. True
 - b. False

Answer: B

10. MRI is especially good for detailed images of _____.
- a. bone structure
 - b. tendons and ligaments
 - c. blood vessels and blood flow
 - d. tumors

Answer: B

11. PET scans are based on what principle?
- a. Radioisotope is absorbed in the targeted area.
 - b. Radioactivity emits from only the targeted area.
 - c. PET radiation is measured directly from source.
 - d. High energy gamma sources work best.

Answer: A

12. PET scans are commonly used for _____.
- a. cancer detection
 - b. blood flow in heart muscle
 - c. brain abnormalities
 - d. all the above

Answer: D

13. _____ has a physician direct radiation beams to a target.
- a. Co-60 saturation
 - b. External radiation therapy
 - c. Internal radiation therapy
 - d. Radiation scanning

Answer: B

14. The most commonly used medical isotope is _____.
- a. Co-60
 - b. Mo-99
 - c. Ir-192
 - d. Tc-99m

Answer: D

15. T or F - Mo-99 is made in a nuclear reactor.
- a. True
 - b. False

Answer: A

16. I-131 is used to treat _____.
- a. lung cancer
 - b. brain cancer
 - c. breast cancer
 - d. thyroid cancer

Answer: D