**Section 6: Quality Control of Fluoroscopic Equipment Worksheet**

1. Describe the main components of a fluoroscopic image intensifier tube.

2. Explain how the brightness gain of an image intensifier tube is determined.

3. Discuss the four factors that affect the brightness of fluoroscopic images.

4. Explain the difference between conventional image intensifier tubes and multifield image intensifier tubes.

5. Describe the four basic types of artifacts that can appear on images created with image intensifier tubes.

6. Discuss the four basic types of television cameras that have been used in fluoroscopic systems.

7. Describe the procedure for evaluating monitor brightness during the visual inspection.

8. State the maximum exposure rate at tabletop for fluoroscopic units.

9. Explain the difference between high-contrast and low-contrast resolution.

10. Describe how veiling glare or flare would be evaluated in a fluoroscopic system.

1. Which of the following is not normally part of an image intensifier tube?

12. Which material is most often used in the input phosphor of an image intensifier?

13. The increase in image brightness resulting from the difference in size between the input and output phosphors is known as

14. Which of the following increases the brightness of a fluoroscopic image: (1) an increase in kilovolt (peak), (2) an increase in milliampere, and/or (3) an increase in pulse width?

15. The main advantage of using a multifield image intensifier is that the\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

16. The type of image intensifier artifact that results from projecting an image onto a flat surface

is called\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

17. Which of the following is not a “tube” type of television camera?

18. The primary beam should be restricted to the diameter of the input phosphor to within \_\_\_\_\_\_

of the SID.

19. The video monitor of a fluoroscopic system should be evaluated with a test pattern created by

the\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

20. The intensity of the x-ray beam at tabletop should not exceed \_\_\_\_\_\_\_\_ for units that are

equipped with ABS.

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