X-ray Review

Q: Who discovered x-rays, and in what year?

Q: What was the first x-ray image?

Q: Define radiography.

Q: Define radiology.

Q: What is fluoroscopy primarily used for?

Q: What type of energy are x-rays?

Q: What is the wavelength range of diagnostic x-rays?

Q: How are x-rays produced in the tube?

Q: Name the two types of x-ray production.

Q: What percentage of electron energy is converted to x-rays?

Q: What is the cathode’s function?

Q: What is the anode’s function?

Q: Why is tungsten used in the anode?

Q: What is the focal spot?

Q: What is the purpose of the glass envelope?

X-ray Review

Q: What is the function of the tube housing?

Q: What does kVp control?

Q: What does mAs control?

Q: What happens if you double mAs?

Q: What happens if you increase kVp by 15%?.

Q: What is the inverse square law?

Q: Define radiographic contrast.

Q: Define spatial resolution.

Q: What causes magnification in an image?

Q: What is scatter radiation, and how is it reduced?

Q: What is a grid used for?

Q: What does ALARA stand for?

Q: What are the three cardinal principles of radiation protection?

Q: What is the annual occupational dose limit for radiation workers (whole body)?

Q: What is the annual dose limit for the general public?

X-ray Review

Q: What type of shielding is most effective for radiation protection?

Q: What device is used to monitor occupational radiation exposure?

Q: What is beam hardening?

Q: What is the line-focus principle?

Q: What is the anode heel effect?

Q: What is half-value layer (HVL)?

Q: What does PACS stand for, and what is its function?

Q: What is DICOM?

Q: What is the difference between CR and DR imaging systems?

Q: Define window width and window level in digital imaging.

Q: What does ARRT stand for?

Q: What is the ethical principle of beneficence in healthcare?