Radiation Image Quality Assignment

Instructions: Answer the following questions. Be sure to explain where necessary.

1. Define image quality in radiography.
2. Name four primary factors that affect radiographic image quality.
3. What is radiographic density (or brightness) and what controls it?
4. What is radiographic contrast and what technical factor primarily affects it?
5. How does kVp influence image contrast?
6. What is spatial resolution, and what are two ways to improve it?
7. Define distortion in radiography and list two types.
8. How does OID (object-to-image distance) affect image sharpness?
9. What is the effect of increasing mAs on image quality?
10. What role does collimation play in image quality?
11. Explain the relationship between patient dose and image quality.
12. What is noise in an image, and how can it be reduced?
13. How does motion affect image quality, and how can it be minimized?
14. What is the effect of a grid on image quality?
15. Why is proper positioning important for achieving optimal image quality?