

THE TUFFEST STUFF CT REGISTRY REVIEW SEMINAR
STUDY PAGES FOR REVIEW
“THE RESOLUTIONS”

RESOLVING RESOLUTION

1. INDICATE ALL THAT APPLY: Which of the following defines CONTRAST RESOLUTION?
 - a. CONTRAST RESOLUTION is also accurately described as SYSTEM SENSITIVITY
 - b. The ability to differentiate soft tissue structures based on their individual shade of gray
 - c. LOW CONTRAST DETECTABILITY is also an accurate description of CONTRAST RESOLUTION
 - d. The ability to differentiate low contrast structures given a similar background
 1. a, b, c
 2. b, c, d
 3. a, d
 4. a, b, c, d

Ans. 4

2. INDICATE ALL THAT APPLY: Which of the following is associated with SPATIAL RESOLUTION (SR)?
 - a. Line pairs per millimeter is the measure in CT
 - b. The ability to differentiate high contrast objects that are significantly different from their background
 - c. SR describes the scanner’s ability to differentiate closely placed objects that are significantly different from their background
 - d. The effective character of expression is “mew”
 1. a, b, c, d
 2. a, d
 3. b, c
 4. a, c

Ans. 3

3. The ability of a CT Scanning system to freeze the motion of a scanned object to faithfully image it is a measure of TEMPORAL RESOLUTION.
 - a. True
 - b. False

Ans. a

Which of the following statements is accurate regarding the factors that control CONTRAST RESOLUTION?

4. As mAs increases, dose increases
 - a. True
 - b. false

Ans. a

5. As mAs decreases, quantum mottle increases
 - a. True
 - b. false

Ans. A

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ans. b

32. The spatial resolution realized with axial mode is greater than helical mode

- a. true b. false

ans. a

33. As pixel size decreases, spatial resolution increases

- a. true b. false

ans. a

34. As matrix size increases, spatial resolution decreases

- a. true b. false

ans. b

35. As mA increases, spatial resolution increases

- a. true b. false

ans. a

36. As kVp decreases, spatial resolution increases

- a. True b. false

ans. a

37. As PITCH increases, spatial resolution decreases

- a. True b. false

ans. a

38. As filtration increases, spatial resolution increases

- a. True b. false

ans. a

39. As slice thickness increases, spatial resolution decreases

- a. True b. false

ans. b

**Which of the following statements is true & accurate regarding
CONTRAST RESOLUTION?**

40. As contrast resolution increases, image quality increases

- a. True b. false

ans. a

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41. As contrast resolution increases, system sensitivity decreases
a. True b. false

ans. b

42. As uniformity decreases, contrast resolution increases
a. True b. false

ans. b

43. As slice thickness increases, contrast resolution increases
a. True b. false

ans. a

44. As X-ray flux increases, contrast resolution increases
a. True b. false

ans. A

**Which of the following statements is true & accurate regarding
TEMPORAL RESOLUTION?**

45. A 128 slice scanner possesses increased TEMPORAL RESOLUTION compared to a 64 slice scanner
a. True b. false

Ans. A

46. As the speed with which the gantry rotates increases, TEMPORAL RESOLUTION increases
a. True b. false

Ans. A

47. As PITCH decreases, TEMPORAL RESOLUTION increases
a. True b. false

Ans. B

48. As scanner coverage increases, TEMPORAL RESOLUTION increases
a. True b. false

Ans. A

49. Changing PITCH from 1.8 to 0.7 would cause a decrease in TEMPORAL RESOLUTION
a. True b. false

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Ans. A

50. TEMPORAL RESOLUTION is a measure of how quickly information acquisition can occur in CT imaging

- a. True
- b. false

Ans. A