

CBIP Examination Paper - RT Weld testing

Level 1 Specific

- 1 X-radiography is often preferred over gamma radiography for thinner steel sections because of:
- A. Its lower energy
 - B. Its higher energy
 - C. Its better portability
 - D. Its better penetration
- 2 Slag inclusions are common with which of the following weld processes?
- A. SAW and GTAW
 - B. GMAW and FCAW
 - C. GTAW and MMAW
 - D. FCAW and MMAW
- 3 In general, panoramic X-ray machines have which of the following characteristics:
- A. They can radiograph one entire circumferential seam with one exposure
 - B. They produce more penetrating radiation
 - C. They have smaller focal spot sizes
 - D. They will produce more tubehead current
- 4 When producing an exposure chart for an X-ray machine, two exposures must be made for each:
- A. kV setting
 - B. mA setting
 - C. Material thickness
 - D. FFD
- 5 In AS 2177 XR2-S means:
- A. X-rays with 2 shots per weld
 - B. X-rays with Type 2 film
 - C. X-rays with 2 different speeds of film
 - D. None of the above
- 6 Geometric unsharpness should be minimised to improve:
- A. Exposure times
 - B. Film contrast
 - C. Image quality
 - D. All of the above.

- 7 When performing RT of a complete circumferential weld, how many IQIs are required?
- A. 1
 - B. 2
 - C. 3
 - D. 4
- 8 One of the changes in film processing is the conversion of silver halide into metallic silver. This is:
- A. Reverse osmosis
 - B. Reduction
 - C. Oxidation
 - D. Compton effect
- 8 Your work instruction requires a density of 2.0 minimum. Where should the density be measured?
- A. At the edge of the area of interest
 - B. In the middle of the area of interest
 - C. At the darkest point in the area of interest
 - D. At the lightest point in the area of interest
- 10 As a level 1 technician, you are instructed to perform a test to AS 2177. You must:
- A. Be provided with AS 2177
 - B. Be provided with an explanation of the test technique
 - C. Be provided with a written work instruction
 - D. Be provided with your company's weld testing procedure
- 11 Draw a typical set-up showing the double wall double image technique with X-ray. State how many exposures you would use, and show the beam alignment.
- 12 Briefly explain the GMAW weld process, including electrode type, shielding of the molten pool, electrical characteristics and two common defects and their causes
- 13 Explain the term "percentage sensitivity" as it relates to a wire type IQI.
- 14 List the steps taken to produce an exposure chart for one kV setting on an X-ray machine on steel