

# CBIP Examination Paper - RT Weld testing

## Level 2 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, GTAW, GMAW
  - B. ERW, FCAW, MMAW
  - C. PAW, FCAW, MMAW
  - D. SAW, FCAW, MMAW
- 3 Panoramic X-ray machines can be orthogonal beam or forward-throw. Orthogonal beam means:
- A. The focus can be positioned in the plane of the circumferential weld
  - B. The focus must be positioned in the plane of the circumferential weld
  - C. The beam is emitted from the end of the tubehead
  - D. The tubehead is square in shape
- 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 GR2-DWS on a pipe weld means:
- A. The source is outside the pipe and the film is inside the pipe
  - B. The source is inside the pipe and the film is outside the pipe
  - C. Both the source and the film are outside the pipe
  - D. None of the above
- 6 For a pipe of 65mm OD tested by the GR2-DWD method with a 3mm source at 500mm SFD, The  $U_g$  will be:
- A. 0.39mm, which is acceptable to GR2
  - B. 0.39mm, which is unacceptable to GR2
  - C. 0.45mm, which is acceptable to GR2
  - D. 0.45mm, which is unacceptable to GR2

- 7 Which of the following weld defects would show as a light indication on a radiograph?
- A. Copper inclusion
  - B. Oxide inclusion
  - C. Tungsten inclusion
  - D. All of the above
- 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
- 9 The specification for a job 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
- 20 As a level 2 technician, you are instructing a level 1 to perform a test to AS 2177. According to ISO 9712 (AS 3998), you must:
- A. Provide AS 2177
  - B. Provide a verbal explanation of the test technique
  - C. Provide a written work instruction
  - D. Provide your company's weld testing procedure
- 22 Draw a typical manual tank processing system, showing the approximate time and temperature in each bath, as well as the order of processing in the baths.
- 24 Using a sketch, explain the terms Included angle, root gap and root face as they apply to a single vee butt weld welded from one side. Show what a lack of root fusion defect would look like.
- 27 Explain what is meant by the term "contrast" in radiography. How can the contrast be altered with X-rays?
- 30 AS 2177 requires a number of items to be included in a record of test. List five such items which are not required in the test report.