

Lesson 5 - Weld Testing Answer Key

NON-DESTRUCTIVE TESTING

1. What are the types of Non-Destructive Examination?
 - a) Visual
 - b) Liquid Penetrant
 - c) Magnetic Particle
 - d) Ultrasonic
 - e) Radiographic
2. When is a Visual Examination done?
Before, During, & After a Weld
3. Name the eight Visual Examination Tools
 1. Fillet weld gauge
 2. Palmgren gauge
 4. Feeler gauges for overlap
 5. micrometer
 6. caliper
 7. Steel ruler
 8. Tape measure
4. Magnetic Particle Examination can be used with metals that can be _____.
Magnetized
5. Ultrasonic Examination uses what?
Sound waves
6. What type of rays penetrates into metal to show Radiographic Examination results?
X-rays or Gamma rays



DESTRUCTIVE TESTING

7. Destructive Testing is used to test what (name at least 3 things)?

A sample of a weld
Filler metal
Base metal
Welded product
A certified weld

8. Name the six types of Destructive Testing

1. Tension testing
2. Impact testing
3. Bend testing
4. Nick Break testing
5. Fillet Weld Break testing
6. Etch testing

9. Explain what tensile strength is.

How much a material can withstand being pulled apart or have tension on it

10. Impact Testing is typically performed in what type of environment?

A Lab Environment

11. Bend Testing is commonly used to qualify WPS's, also known as

WELDING PROCEDURE SPECIFICATION

12. Explain what usually happens in a Break Test

A welder performs a weld, the weld is broken by a hammer or in destructive equipment, and then the broken weld is examined for defects

13. The Nick Break Test usually tests what type of weld?

Groove weld

14. Name a type of test that inspects the soundness of the weld and metals.

Etch testing

15. Etch Testing has two types of tests, what are they?

Macro & Micro

