

Pre-Test Questions

Can you answer these questions on Standards, Specifications and Testing?

If not, then you could benefit from a bespoke training programme

1. Which type of test certificate according to EN 10204:2004 requires independent witness
 - a. Type 2.1
 - b. Type 2.2
 - c. Type 3.1
 - d. Type 3.2

2. NACE MR 0175 is an alloy selection and qualification procedure for sour gas applications (True / False)

3. Norsok M-650 is an alloy selection and qualification procedure for sour gas applications (True / False)

4. The ductility of a metal may be determined using
 - a. Tensile Test
 - b. Charpy Impact Test
 - c. Both
 - d. Neither

5. Which direction would you expect to have the poorest mechanical properties?
 - a. Longitudinal
 - b. Transverse
 - c. Short Transverse / Through Thickness
 - d. None

6. Emission spectrograph machines are prone to analysis drift. (True / False)

7. Ladle and product analysis for any cast or heat of steel will always be in specification. (True / False)

8. Which of these inspection methods MPI / DPE / UT are suitable for?
 - a. LCC castings
 - b. Grade 316 castings
 - c. Grade F51 castings

9. Which of the following heat treatments are temperature dependant processes?
 - a. Solution Treatment
 - b. Normalising
 - c. Post Weld Stress Relief
 - d. Tempering
 - e. Hardening
 - f. Aging

10. Which of the following heat treatments are time and temperature dependent processes?
 - a. Solution Treatment
 - b. Normalising
 - c. Hardening
 - d. Tempering
 - e. Aging
 - f. Post Weld Stress Relief

11. What metallurgical feature contributes to increasing the fatigue life of a forging?
 - a. Grain size
 - b. Grain flow
 - c. Both
 - d. Neither

12. Which forging method is specifically used to increase the fatigue life of a forging?
 - a. Extrusion
 - b. Cogging
 - c. Upsetting
 - d. Expanding

13. Match up the corrosion process with these products

- a. An old auto bumper, chromium plated
- b. DIY plumbing joining a steel and copper pipe
- c. Grade 304 stainless pipe, heated and bent, immersed in seawater
- d. Grade 304 stainless sheet, heated and bent,

Stress corrosion cracking / Pitting / Sensitisation / Galvanic

14. Grade 316 is more susceptible to corrosion, when the molybdenum content is ~ %

- a. Uniform
- b. Pitting
- c. Galvanic
- d. Selective leaching
- e. ~3%
- f. ~2.5%
- g. ~2%

15. Sweet corrosion is associated with carbon dioxide dissolved in water.

(True / False)