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Vendor:API

Exam Code:API-571

Exam Name:Corrosion and Materials Professional

Version:Demo

QUESTION 1

Which of the following materials is not susceptible to SCC?

- A. Carbon steel
- B. 300 Series SS
- C. Low alloy steel
- D. Both A and C

Correct Answer: D

QUESTION 2

Welds joining dissimilar materials (ferritic and austenetic) may suffer _____ related damage at high temperatures due to differential thermal expansion stresses.

- A. Stress
- B. Creep
- C. Fatigue
- D. Thermal stress

Correct Answer: B

QUESTION 3

It is generally accepted that stresses approaching _____ are required for SCC to occur so that thermal stress relief is effective in preventing caustic SCC.

- A. MAWP
- B. Yield
- C. Creep range
- D. Critical

Correct Answer: B

QUESTION 4

Cooling water corrosion can result in many different forms of damage including general corrosion, pitting corrosion, _____, stress corrosion cracking and fouling.

- A. MIC
- B. HIC
- C. SOHIC
- D. All of the above

Correct Answer: A

QUESTION 5

Which of the following materials is not susceptible to CI SCC?

- A. 400 Series SS
- B. Duplex SS
- C. Nickel based alloys
- D. All of the above

Correct Answer: A

QUESTION 6

Carburization can be confirmed by substantial increases in _____ and loss of _____.

- A. Hardness
- B. Tensile Strength
- C. Ductility
- D. A and B
- E. A and C

Correct Answer: E

QUESTION 7

_____ is the result of cyclic stress caused by variations in temperature.

- A. Creep
- B. Thermal Fatigue
- C. Cyclic Cracking
- D. Stress Corrosion Cracking

Correct Answer: B

QUESTION 8

A steam actuated soot blower has condensate in the first steam exiting the soot blower. What type of damage can be expected to be found when the furnace is brought down for maintenance and inspection?

- A. Thermal fatigue
- B. Steam blanketing
- C. Creep
- D. Stress rupture

Correct Answer: A

QUESTION 9

_____ is similar to HIC but is a potentially more damaging form of cracking which appears as arrays of cracks stacked on top of each other. The result is a through thickness crack that is perpendicular to the surface and is driven by high levels of stress.

- A. MIC
- B. SOHIC
- C. Sulfuric SCC
- D. None of the above

Correct Answer: B

QUESTION 10

_____ is the reduction in toughness due to a metallurgical change that can occur in some low alloy steels as a result of long-term exposure in the temperature range of about 650°F to 1100°F.

- A. Hardening
- B. Graphitization
- C. Spheroidization
- D. Temper embrittlement

Correct Answer: D

QUESTION 11

The best way to prevent failures by atmospheric corrosion is to:

- A. Have an aggressive inspection program.
- B. Reduce airborne particulates.
- C. Install and maintain appropriate coatings.
- D. Shoot all birds that cross the plant fence.
- E. Build new petrochemical facilities in a dry desert.

Correct Answer: C

QUESTION 12

_____ is usually found in aqueous environments or services where water is sometimes or always present, especially where stagnant or low-flow conditions allow the growth of microorganisms.

- A. MIC
- B. HIC
- C. SOHIC
- D. None of the above

Correct Answer: A