

Exam : ISA-CCST-LEVEL-3

**Title : Certified Control Systems
Technician Master - Level 3
(CCST)**

Version : DEMO

1.While supervising incident recovery, what practice helps prevent recurrence of failures?

- A. Fast-tracking system restoration regardless of root causes
- B. Focus on blaming individuals responsible for failures
- C. Thorough incident documentation and follow-up action implementation
- D. Keeping recovery processes confidential to avoid alarm

Answer: C

Explanation:

Documentation and corrective actions are vital to prevent future issues. Blaming individuals, rushing restoration without fixes, or secrecy are ineffective and risk repeat events.

2.During start-up of an integrated SIS, functional testing per IEC 61511 shows ERP alarm latency.

What verification step do you command?

- A. Execute end-to-end latency traces using Wireshark on the network
- B. Ignore if under 1 second
- C. Reboot all nodes
- D. Update user manuals only

Answer: A

Explanation:

IEC 61511 requires detailed traces for latency in ERP-SIS alarms during testing. Wireshark commands provide forensic data, enabling precise verification and multidisciplinary resolution.

3.During a fatal incident investigation, the control engineer is tasked with providing all calibration records.

What archiving practice improves the ability to deliver accurate data on demand?

- A. Keeping calibration records only in paper binders locked in the supervisor's office
- B. Maintaining a real-time digital database with access control and audit trail
- C. Retaining records less than 12 months old to reduce storage costs
- D. Delegating record retrieval responsibility to multiple departments without centralization

Answer: B

Explanation:

A real-time digital database with controlled access and audit trail ensures fast, accurate record delivery during investigations. Paper binders or decentralized storage increase delays and error risks.

4.When conducting vibration analysis as part of predictive maintenance on a rotating pump motor, which parameter is most indicative of bearing defects?

- A. Peaks at bearing characteristic frequencies (BPFO, BPFI)
- B. Sudden increases in unbalance vibration at shaft speed
- C. High-frequency vibration peaks above 10 kHz
- D. Decrease in overall vibration amplitude

Answer: A

Explanation:

Bearing defects generate characteristic vibration frequencies (Ball Pass Frequency Outer/Inner races) identifiable in vibration spectra. High-frequency peaks are more related to impacts or resonances. Unbalance causes vibration peaks at shaft speed, while a decrease in vibration amplitude would not indicate bearing faults.

5.Which legal implication should be considered when creating documentation for a control system?

- A. Accurate documentation can protect against liability
- B. Documentation can be ignored during audits
- C. All documentation must be written in legal jargon
- D. Documentation does not need to be updated regularly

Answer: A

Explanation:

Accurate documentation can protect against liability. In the event of a failure or incident, well-maintained records can demonstrate compliance with regulations and industry standards.