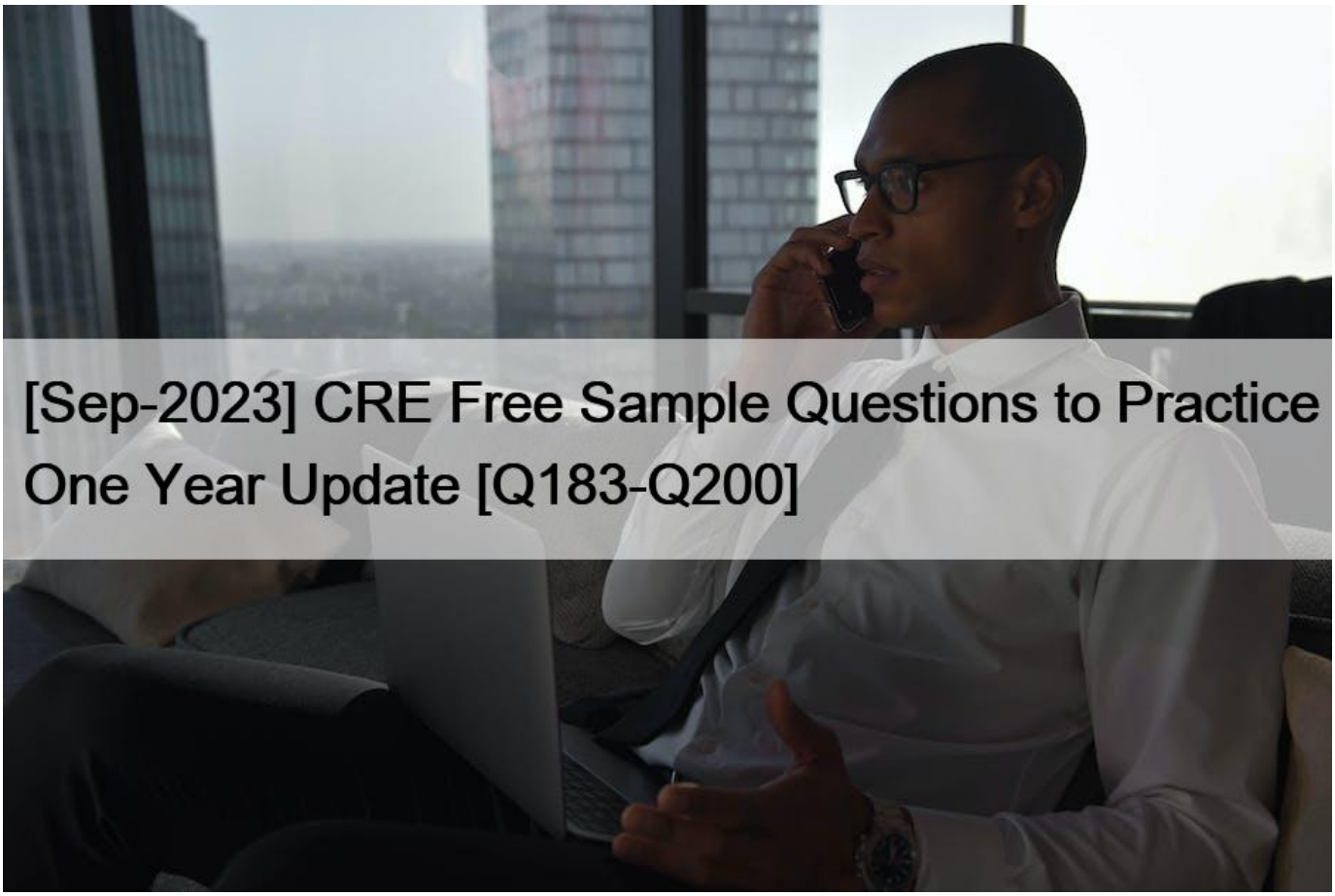
[Sep-2023 CRE Free Sample Questions to Practice One Year Update [Q183-Q200



[Sep-2023] CRE Free Sample Questions to Practice One Year Update
Download CRE exam with ASQ CRE Real Exam Questions

NO.183 Arrange the following failure data steps into the correct sequence from start to finish.

I. Verify the failure.

II. Identify and control the failure.

III. Investigate the failure.

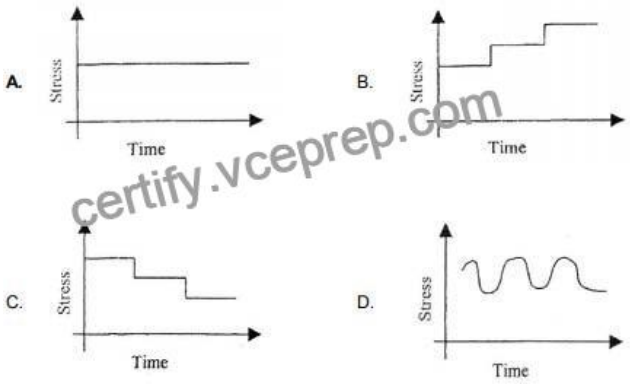
IV. Provide corrective action and follow up.

V. Report the fail.

Response:
* II, V, I, III, IV
* I, II, V, III, IV

* III, II, V, I, IV
* I, II, III, IV, V

NO.184 Which of the following graphs represents a product that is a good candidate for an accelerated degradation test involving overstress testing?



Response:
* Option A
* Option B
* Option C
* Option D

NO.185 The reliability of a device comprised of various parts functioning in series is the:

Response:
* Product of the reliability.
* Sum of the probabilities of the unreliability.
* Product of the unreliability
* Sum of the reliability.

NO.186 Maintainability is:

Response:
* The probability of a system being restored to functional operation within a given period of time.
* Performing adequate maintenance on a system.
* Probability of survival of a system for a given period of time.
* Maintaining a machine in satisfactory working condition.

NO.187 The optimum cost point for total life cycle costs occurs:

Response:
* When operations and maintenance costs are minimized.
* When reliability program expenditures are maximized.
* When acquisition costs plus ongoing costs are minimized.
* When manufacturing and development costs are minimized.

NO.188 What is this system’s reliability at 3000 hours?

MTBFs for the components are :

A = 2500 hours B = 3700 hours C = 2000 hours D = 4000 hours.

Response:
* 0.017
* 0.014
* 0.047
* 0.029

NO.189 Which of the following statements is TRUE about human factor points?

Response:
* They should be incorporated during the design phase.
* They are not necessary until the product has been designed and field tested.
* They are most costly to incorporate during the concept phase.
* They generally cause schedule slippage whenever they are incorporated.

NO.190 You have written what you feel is an excellent book on reliability principles. Your company wants you to conduct company-wide training classes on a specific reliability topic.

Your advice is sought and you recommend your text because you are familiar with it. What other professional action should be immediately taken?

Response:
* Be modest and nonassuming when explaining your work.
* Recommend the work of another author to avoid the appearance of impropriety.
* Inform your employer of your business connection to the book.
* If the book is commercially available and your royalty is small, no other action is required.

NO.191 A system is made up to several identical parts of varying age. The reliability of each of these parts is given by R(t) = e – ?t where ? is the failure rate in failures per hour and t is the operating time in hours.

Which of the following is TRUE about the reliability of these parts?

Response:
* The oldest part is expected to fail first.
* The failure rate of the system is given by the product of the individual part reliabilities.
* Each of the parts has the same probability of failing during a given period of time.
* The failure rate of the system is given by the product of the individual part failure rates.

NO.192 In standby parallel systems, imperfect switching means :

I. The switch is not perfect.

II. The secondary unit is on back-up.

III. The reliability of the system is less than with perfect switching.

IV. The secondary unit has the same reliability as the primary unit.

Response:
* I
* I and II
* I, II and III
* All of the above

NO.193 What is the Z value needed to conduct a two tail test in a statistical inference problem, specifying 90% level of confidence?

Response:
* 1.96
* 1.28
* 1.65
* 2.24

NO.194 QFD stand for

Response:
* Quality Function Deployment.
* Qualification of Preliminary Design.
* Quantitative Functional Development.
* Quality Focused Department.

NO.195 Some keys to a successful reliability program include:

I. An evolutionary approach to new product development

II. Emphasis on manufacturing conformance to specifications

III. Development of strong long-term relationships with a small number of suppliers IV. The use of standards for guidance and lessons learned Response:
* II, III and IV only
* I and IV only
* I, III and IV only
* I, II, III and IV

NO.196 Customer feedback and data have been gathered on several new unknown failure modes, what would be an appropriate analysis tool to use on the data?

Response:
* Conduct a FMECA.
* Use a FTA.
* Use a pareto chart for failures.
* Perform a risk assessment.

NO.197 For continual improvement in product reliability which of the following tests is MOST desirable?

Response:

* Development tests.
* Burn-in tests
* Stress screening tests
* Qualification tests.

NO.198 The influence of FMEA on reliability is maximized at which of the following stages of development?

Response:
* Design.
* Prototype.
* Test.
* Operation.

NO.199 To be accurate and easy to use, field-failure reports should have all of the following attributes EXCEPT Response:
* Commonly used data points presented in a check-off format.
* Common failure modes and corrective actions included as a check-off.
* Adequate space for hand-written comments and explanations.
* Identification of customer symptoms to explain the cause or problem.

NO.200 If a component has a known constant failure rate of 0.0037 failures per hour ; the reliability of two of these components in a series alignment would be:

Response:
* Insufficient information to solve problem.
* 99.63 percent.
* Less than 99 percent.
* Dependent on the wear out rate of a mating subsystem