API

Exam API-580

Risk Based Inspection Professional

Version: 5.0

[Total Questions: 140]

Question No : 1

_____to be established to judge acceptability of risk couldhe an objective of the rbi assessment if such criteria do not exist already within the user's company.

A. Risk criteria
B. Risk plan
C. Risk analysis

Answer: A

Question No : 2

Results of quantitative consequence analysis are usually expressed in

A. Numeric
B. Ranges from high to low
C. Frequency
D. Occasion

Answer: A

Question No : 3

Quantitative risk analysis logic models generally consist of_____and_____

A. Event tees and fault trees
B. Product trees and loss trees
C. Likelihood trees and consequence trees

Answer: A

Question No : 4

Act of mitigating a known risk to a lower level of risk.

A. Risk reduction
B. Risk management
C. Risk mitigation

Answer: A

Question No : 5

When in accurate or insufficient failure data exists on the specific equipment item for quantative probability of failure analysis then

A. General industry, company or manufacturer failure data used
B. Process hazard analysis failure data may be used
C. Process and toxic concentration analysis may be used

Answer: A

Question No : 6

In jurisdictions that permit the application of the API Inspection Codes and standards

A. Rbi should be an acceptable method for setting inspection plans.
B. Rem should be an acceptable method for setting the inspection plans
C. Pha

Answer: A

Question No : 7

A physical condition or a release of a hazardous material that could result from componentfailure and result in human injury or death, loss or damage,or environ- mental degradation

A. Hazard
B. Loss
C. Failure

Answer: A

Question No : 8

The following assumption can bemade that significantly impactthe calculated corrosion rate early in the equipment life

A. If the base line thickness were not performed the nominal thickness may be used for the original thickness
B. If original thickness not available, averaged ut thickness readings may be used
C. Iftheoriginal thicknessnot available, maximum utthickness readings may be used

Answer: A

Question No : 9

Fora typical inspection program, if excessive inspectionis applied then,

A. Level of risk may go up
B. Level of risk may go down
C. Level of risk remain the same

Answer: A

Question No : 10

Reliability efforts, such as reliability centered maintenance (rem), can be linked with rbi, resulting in an integrated program to

A. Reducedowntime in an operating unit
B. Reduce operating time of a unit
C. To reduce risk by mitigation activities

Answer: A

Question No : 11

In most consequence evaluations, a key element in deter-mining the magnitude of the consequence is

A. The volume of fluid released
B. Amount of surface area exposed due to toxic release
C. Physical area impacted by release

Answer: A

Question No : 12

If the material of construction and internal/external conditions are the same

A. Inspection results can be related from one equipment can be related to the other equipment
B. We cannot do that, since we do not know about it
C. Need to consult Equipment Engineer for final decision

Answer: A

Question No : 13

Combination of the probabilityof an event and its consequence

A. Risk
B. Failure
C. Loss
D. Reduction

Answer: A

Question No : 14

Process used to compare the estimated risk against given risk criteria to determine the significance of the risk.

A. Risk evaluation
B. Risk estimation
C. Risk identification

Answer: A

Question No : 15

Equipment reliability is especially important if leaks can be caused by

A. Secondary failures, such as loss of utilities
B. Primary failures such as leak due to severe corrosion
C. Tertiary failures due to valve gland packing leak

Answer: B

Question No : 16

Deterioration susceptibility and rate can be done

A. By groupingthe same material of construction/similar process/environment
B. Not possible to group under any circumstances
C. By random inspection method

Answer: A

Question No : 17

The ability to state the rate of deterioration precisely is affected by the following except

A. By equipment complexity
B. Typeofdeteriorationmechanism, processand metallurgical variations
C. Inaccessibilityfor inspection, limitations ofinspection andtest methods
D. Lack of coverage of an area subject to deterioration
E. None of the above

Answer: C

Question No : 18

_____may result in the calculated corrosion rate appearingartificially high or low.

A. Clerical error
B. Measurement error
C. Inspector error
D. Ut scanning

Answer: B

Question No : 19

Rbi requires the commitment and cooperation of the

A. Total organization
B. Inspection
C. Maintenance
D. Materials engineering

Answer: A

Question No : 20

Risk presented in quantitative risk analysis as a

A. Precise numeric value
B. Form of risk matrix
C. Form of event tree and fault tree

Answer: A

Question No : 21

Systematic use of information to identify sources and to estimate the risk

A. Risk
B. Risk analysis
C. Hazard analysis

Answer: B

Question No : 22

In RBI program discrimination between equipment items on the basis of significance of potential failures.

A. Failure analysis
B. Determining failure modes
C. Consequence analysis
D. A&B

Answer: D

Question No : 23

Deterioration rates can be expressed in terms of

A. Corrosion rates for thinning or susceptibility for mechanisms where deterioration rate is unknown
B. Corrosion rates for thinning only
C. Immeasurable quantity
D. Discrete numbers
E. Susceptible rates only

Answer: A

Question No : 24

_____ is usually not the primary objective of arbiassessment, but it is frequently a side effect of optimization.