



NACE Corrosion Technician Written Exam NACE-CTn-001

Exam Preparation Guide
July 2019

Table of Contents

Introduction	3
Target Audience	3
Requirements.....	3
Exam Blue Print	4
Types of Questions.....	5
Description of Questions	5
Sample Questions	5
Answer Key:	6
Preparation	6
Suggested Training.....	6
Suggested Study Material	6
Standards	6
What to expect on test day.....	6
Arriving at the Person Test Center.....	6
Computer Based Test Demonstration	6

Introduction

The Corrosion Technician exam is designed to assess whether a candidate has the requisite knowledge, skills and abilities (KSAs) that a minimally qualified Corrosion Technician must possess. The 49 questions are based on the KSAs a Corrosion Technician needs to be successful in the job. A candidate should have at least two (2) years of experience, possess a wide range of general corrosion related knowledge, and be able to perform a variety of corrosion related tasks.

Test Name	NACE-Certified Corrosion Technician
Test Code	NACE-CTn-001
Time	120 Minutes*
Number of Questions	49
Format	Computer Based Testing (CBT)
Passing Score	Pass or Fail

**NOTE: Includes 4 minutes for the non-disclosure agreement and 6 minutes for the system tutorial.*

Target Audience

A Corrosion Technician is responsible for performing routine, well defined work under the close direction of Specialist or Senior Technologist personnel. The certification is geared toward persons who will work in the areas of general corrosion, cathodic protection, protective coatings, materials/metallurgy, inhibitors, and/or chemical treatment. The Corrosion Technician may monitor and/or control corrosion, as well as differentiate between inspection and monitoring common testing techniques in a range of environments under supervision.

Requirements

Requirements for Certified Protective Coating Specialist

Requirements:
<i>Option 1:</i> <ul style="list-style-type: none">• 2 years documented work experience in field of corrosion• Successful completion of NACE Basic Corrosion Course or e-Course & Exam
<i>Option 2:</i> <ul style="list-style-type: none">• 2 years documented work experience in field of corrosion• Corrosion Technician Certification Exam
Course Requirements
NACE Basic Corrosion Course or e-Course if Option 1
None if Option 2

Core Exam Requirements
NACE Basic Corrosion Exam if Option 1 Exam - Corrosion Technician Written Exam if Option 2
Application Requirements
Approved Corrosion Technician Application

Renewal requirements: Recertification application* required every 3 years

**Approval required*

Exam Blue Print

NOTE: At the end of the CBT exam the candidate should log on to their NACE profile to view a bar chart of strengths and weaknesses that correspond to these Domains.

<p>Domain 1 - Corrosion Fundamentals</p> <ul style="list-style-type: none"> • Corrosion definition • Electrochemical Cells • Faraday's Law • Galvanic Series • Ohm's Law • Parts of a corrosion cell • Pourbaix • Reactions 	16-20 %
<p>Domain 2 - Forms of Corrosion/Corrosion Mechanisms</p> <ul style="list-style-type: none"> • Environmental • External • Internal 	18-22 %
<p>Domain 3 - Materials</p> <ul style="list-style-type: none"> • Material properties • Material selection • Metallurgy 	8-12 %
<p>Domain 4 - Corrosion Control</p> <ul style="list-style-type: none"> • Cathodic Protection • Coatings • General Corrosion • Inhibitors 	33-37 %

Domain 5- Forms of Corrosion/Corrosion Mechanisms <ul style="list-style-type: none"> • Inspection • Record keeping/Documentation • Testing 	15-19%
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Types of Questions

Description of Questions

This is a closed book exam. The questions consist of multiple-choice questions where some questions may have more than one answer. Items with more than one correct answer may contain the phrase **“SELECT ALL THAT APPLY”** and you will need to select more than one answer choice. The questions are based on the knowledge and skills required in the Corrosion Technician industry.

Sample Questions

The sample questions are included to illustrate the formats and types of questions that will be on the exam. Your performance on the sample questions should not be viewed as a predictor of your performance on the actual test.

1. Which of these is categorized as a coating failure?
SELECT ALL THAT APPLY
 - A. Cratering
 - B. Cracking
 - C. Pigging
 - D. Alligatoring

2. Chloride contaminations of steel substrates is known to cause:
 - A. a treated surface.
 - B. tight adhesion to the primer.
 - C. osmotic blisters.
 - D. electro endosmosis.

3. An inhibitor is a:
 - A. non aqueous pipeline system.
 - B. substance that retards a chemical reaction.
 - C. gaseous environment.
 - D. polarization process.

Answer Key:

1. **A, B, D**
Reference: CIP 1
2. **C**
Basic Corrosion
3. **B**
Reference: Basic Corrosion

Preparation

Suggested Training

NACE Basic Corrosion Course or e-Course

Suggested Study Material

NACE Basic Corrosion Manual

NACE CP 1 Manual

Local and International safety rules/regulations (i.e. OSHA, ISO, etc.)

Standards

NACE TPC-9 User's Guide to Hot Dip Galvanizing

Reference Material Provided During Exam

No reference material provided. It is closed book exam.

What to expect on test day

Arriving at the Person Test Center

When you go to the Pearson Testing Center, there are a few things you should know. Please visit this link for information you should know before you go.

<https://home.pearsonvue.com/test-taker/security.aspx>

Computer Based Test Demonstration

Once you are in the testing room and at the computer, you will start with agreeing to the non-disclosure agreement and have a brief tutorial of using the system. Please visit this link for a demonstration of the computer based exam. You will have the opportunity to practice answering a variety of questions to help you get familiar with how it all works.

<https://wsr.pearsonvue.com/demo/>