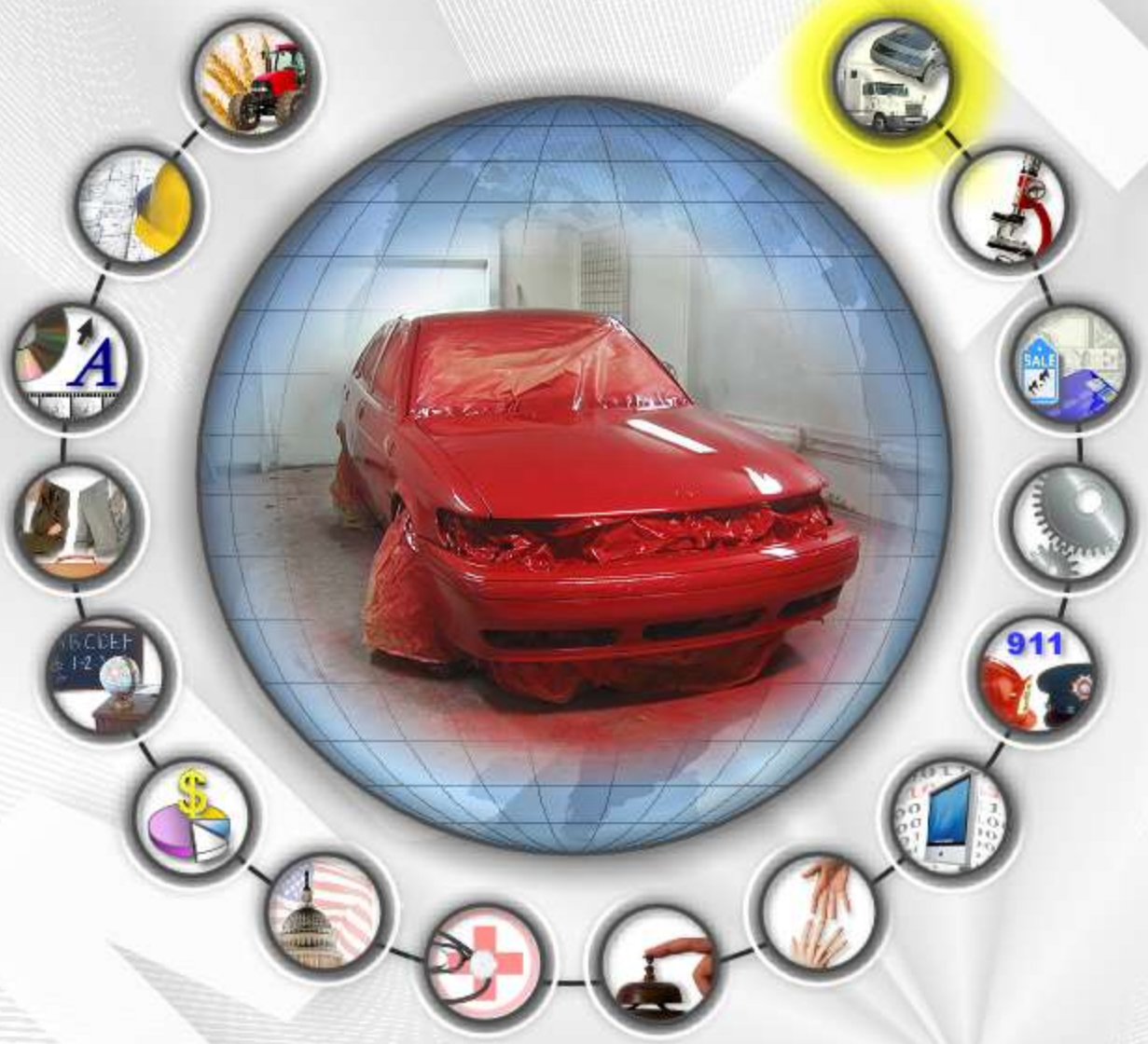
NOCTI®

Job Ready Assessment Blueprint

Collision Repair and Refinishing Technology



Test Code: 3083 / Version: 01

"Measuring What Matters"

Specific Competencies and Skills Tested in this Assessment:

Safety and Fundamentals

- Demonstrate knowledge of safety/environmental requirements in the collision repair industry
- Identify proper safety techniques for the use of shop equipment
- Identify fundamental practices in the collision repair industry
- Apply business practices within the collision repair industry

Structural

- Select, setup, and adjust MIG/GMAW, STRSW, and/or TIG welders
- Describe various types and uses of welding processes
- Use adhesive bonding procedures
- Diagnose primary and secondary structural damage, including stationary glass
- Replace and/or repair structural components

Non-Structural

- Identify automotive plastics and proper repair procedures
- Diagnose primary and secondary non-structural damage
- Identify types of non-structural automotive glass
- Remove and replace automotive trim
- Remove, install, replace, and align non-structural panels
- Remove, install, and replace ancillary components (headlamps, under-hood fuse boxes, etc.)

Mechanical and Electrical Systems

- Identify basic steering and suspension components (tie rod ends, ball joints, steering racks, etc.)
- Identify how collision damage affects basic suspension geometry
- Verify functions of electrical system and basic wiring repair (soldering, quick connectors, etc.)
- Perform basic electrical diagnostic operations

Specific Competencies and Skills Continued:

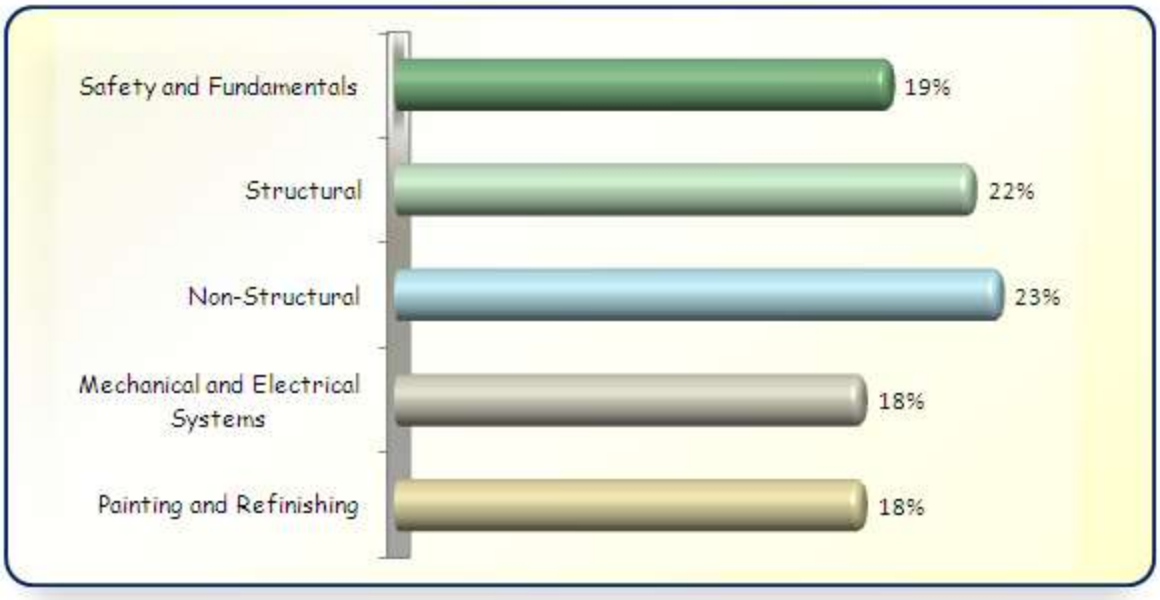
Painting and Refinishing

- Identify painting and refinishing safety and environmental requirements
- Identify and demonstrate surface preparation techniques
- Identify and demonstrate paint materials preparation techniques
- Identify and demonstrate paint materials application techniques

Written Assessment:

Administration Time: 3 hours
Number of Questions: 182

Areas Covered:



Sample Questions:

To avoid burns, use caution when opening the

A. radiator cap
B. gas cap
C. brake fluid reservoir
D. washer reservoir

Insufficient shielding gas flow can cause

A. excessive penetration
B. low weld bead
C. porosity
D. density

Damage that occurs at the point of impact is called

A. sidesway
B. primary
C. secondary
D. twist

The rack and pinion steering system is

A. only found on large trucks
B. complex and rarely used today
C. the simplest system used
D. used with parallelogram system

Technicians can reduce harmful vapors in the air by

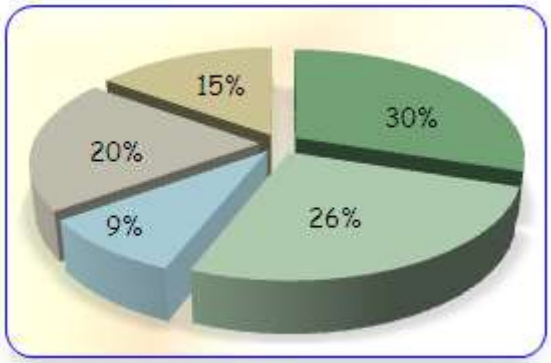
A. painting outside
B. closing lids on cans
C. mixing extra paint
D. spraying extra coats

Performance Assessment:

Administration Time: 3 hours and 45 minutes
Number of Jobs: 5

Areas Covered:

30% **Welding**
Safety, welder adjustment, lap weld (1" to 1-1/2") in vertical position, butt weld vertical with backing, plug weld vertical, welder shut-down, time to complete Job 1.



26% **Sheet Metal Repair**
Safety, clean panel, straighten damaged area, prepare panel for filler, mix and apply body filler, sand and shape filler, and time to complete Job 2.

9% **Vehicle Measurement**
Safety, measure wheel base, x-measurement of engine compartment, time to complete Job 3.

20% **Refinishing**
Safety, panel cleaning, tack rag, base coat application, clearcoat application, and time to complete Job 4.

15% **Masking**
Safety, panel cleaning, masking, masking removal, clean up and prepare, and time to complete Job 5.

Sample Job: Vehicle Measurement

Maximum Time: 15 minutes

Participant Activity: The participant will obtain tram gauge from storage area, measure vehicle wheel base (hub to hub) with tram gauge, and record results in metric measurement on the chart provided.

The Association for Career and Technical Education (ACTE), the leading professional organization for career and technical educators, commends all students who participate in career and technical education programs and choose to validate their educational attainment through rigorous technical assessments. In taking this assessment you demonstrate to your school, your parents and guardians, your future employers and yourself that you understand the concepts and knowledge needed to succeed in the workplace. Good Luck!