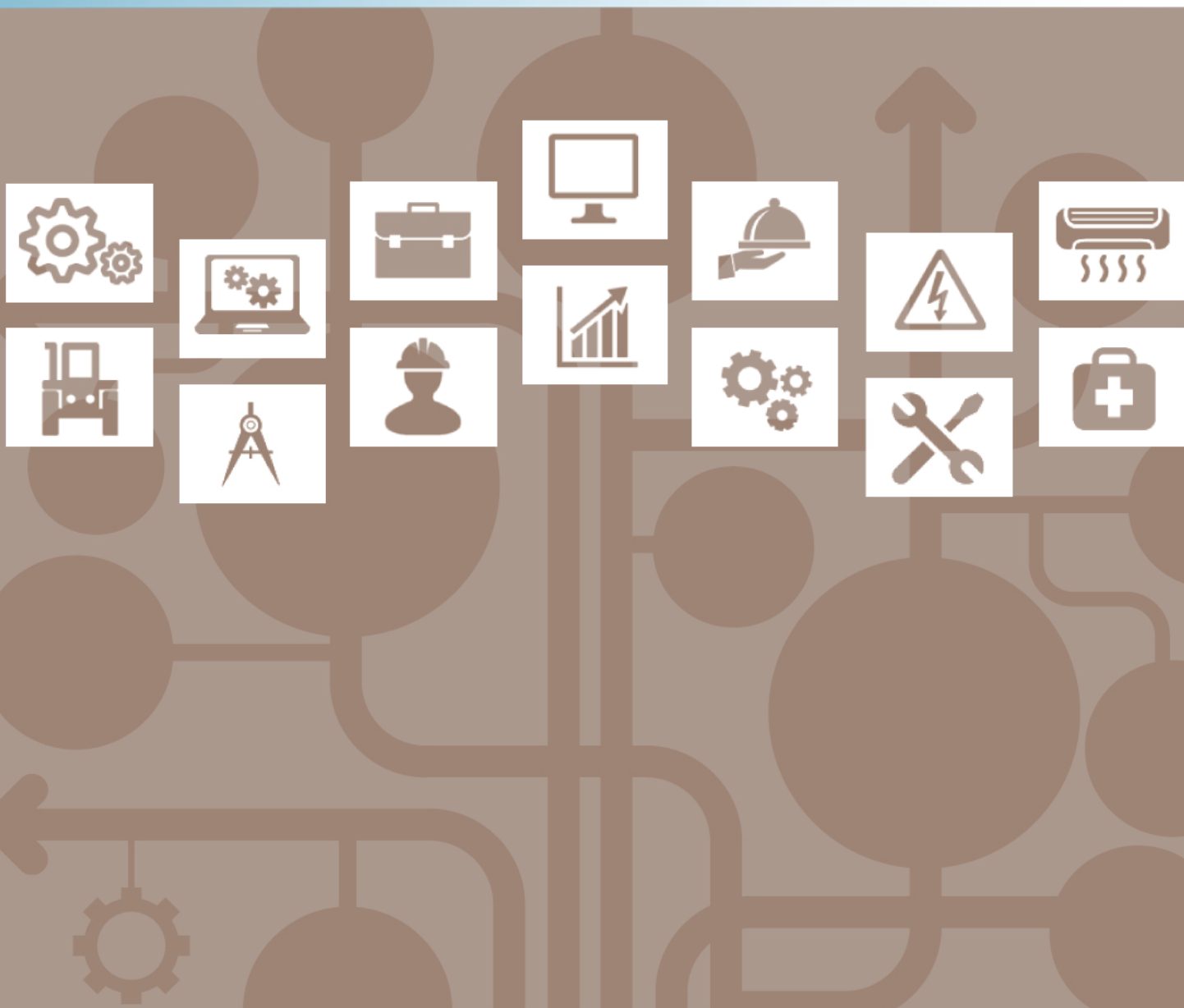


Entry Level Assessment Blueprint

Collision Repair and Refinishing Technology



Specific Competencies and Skills Tested in this Assessment:

Safety

- Demonstrate knowledge of workplace safety and environmental practices
- Demonstrate appropriate care and maintenance of shop tools and equipment
- Identify proper use of Personal Protective Equipment (PPE)

Business Fundamentals

- Demonstrate knowledge of estimating terminology
- Identify employability skills within the collision repair industry
- Calculate estimates and costs related to repair procedures

Metal Inert Gas (MIG)/Gas Metal Arc Welding (GMAW), and Squeeze-Type Resistance Spot Welding (STRSW)

- Demonstrate vehicle protection procedures
- Demonstrate understanding of welder set-up and maintenance
- Describe various welding and removal processes
- Describe and differentiate various types and uses of welding processes

Structural Repairs

- Replace and/or repair structural components
- Select, set up, and utilize manual measuring systems
- Explain and identify computerized 3-D measuring systems
- Explain and identify the operation of various pulling systems
- Diagnose direct and indirect structural damage
- Demonstrate knowledge of working with various strengths of metals



Non-Structural Repairs

- Demonstrate understanding of metal straightening and finishing
- Identify automotive plastics and proper repair procedures
- Diagnose primary and secondary non-structural damage
- Demonstrate knowledge of movable and stationary glass
- Utilize basic corrosion protection procedures
- Use adhesive bonding procedures
- Remove and replace automotive trim
- Remove, install, replace, align, or repair non-structural panels
- Remove, install, and replace ancillary components (e.g., headlamps, under-hood fuse boxes, etc.)

Specific Competencies and Skills (continued)

Mechanical and Electrical Systems

- Identify basic steering and suspension components
- Verify functions of electrical system and basic wiring repair
- Identify service and operation of air conditioning (AC) and cooling systems
- Identify a basic safety restraint system (SRS)
- Perform basic mechanical and electrical operations

Painting and Refinishing

- Identify and demonstrate surface preparation techniques
- Demonstrate masking and taping application techniques
- Identify and demonstrate paint material preparation techniques
- Identify causes and remedies for paint defects
- Identify and demonstrate paint materials, applications, and techniques

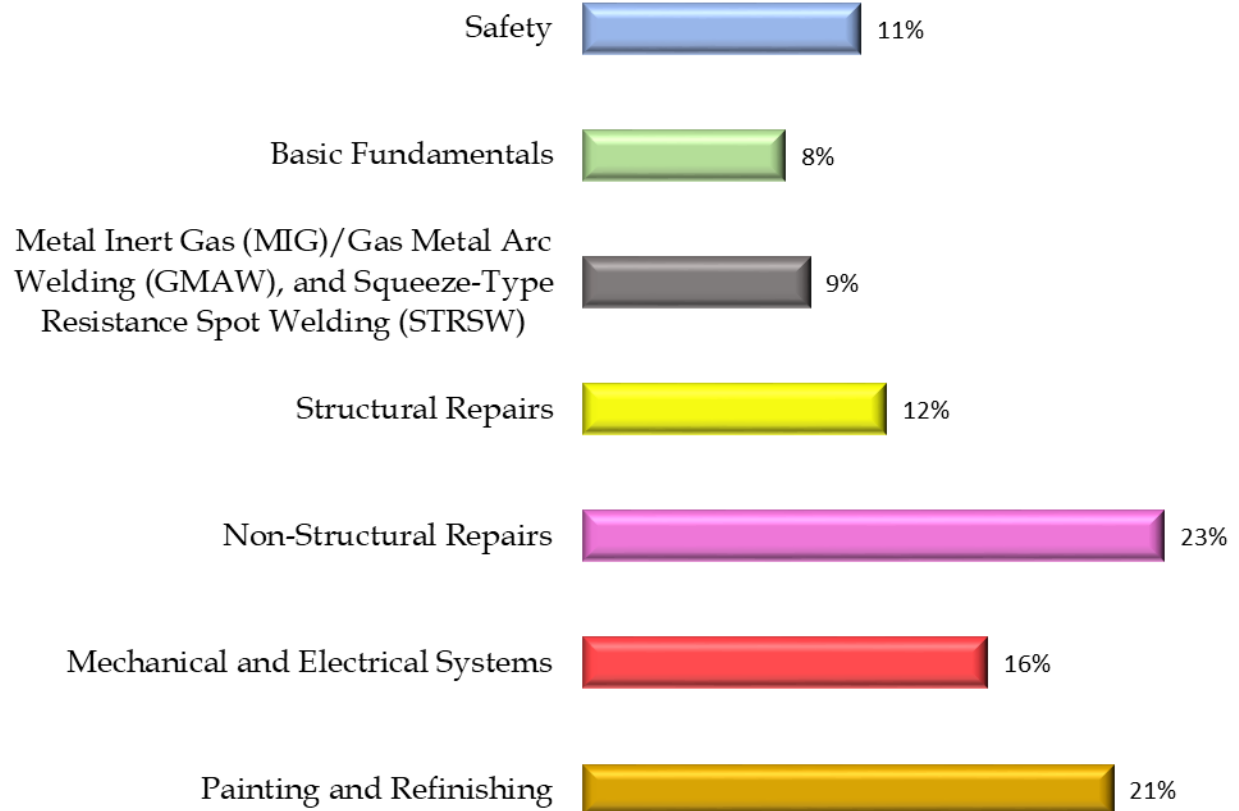


Written Assessment:

Administration Time: 3 hours

Number of Questions: 184

Areas Covered:



Sample Questions:

Clogged spray booth filters will cause

- A. runs in the finish
- B. orange peel in the finish
- C. shorter flash times
- D. malfunction of the spray booth

What information does the eighth digit from the right of a VIN provide?

- A. assembly plant
- B. body type
- C. model year
- D. engine type

Bird-nesting occurs on a MIG/GMAW welder

- A. between the drive rollers and liner
- B. at the contact tip
- C. on the work being welded
- D. inside the liner

When making a vertical butt weld, start from the

- A. top
- B. bottom
- C. center
- D. left

Etch primer is used to

- A. promote adhesion to bare metal
- B. remove oxidation and etch the metal
- C. remove wax and grease
- D. increase color retention

Performance Assessment:**Administration Time:** 2 hours and 30 minutes**Number of Jobs:** 3**Areas Covered:****40% Welding**

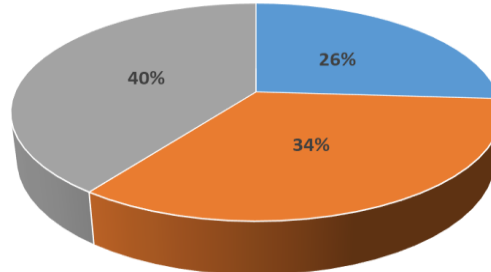
Participant will use 18 gauge coupons to practice and tune equipment. Participant will perform a horizontal lap weld, horizontal butt weld, and horizontal plug weld; presenting the best one for scoring to the evaluator, and clean work area and shut down equipment.

34% Sheet Metal Repair

Participant will obtain required tools, equipment, and materials, repair dent in the panel, and clean work area.

22% Refinishing

Participant will safely clean, tack and refinish panel, apply base coat and clear coat, and clean work area.

**Sample Job:** *Sheet Metal Repair***Maximum Time:** 1 hour

Participant Activity: Participant will obtain required tools, equipment, and materials, and clean panel, rough finish the damaged area, apply filler, finish contour, put away tool, and clean work area.