JOB READY ASSESSMENT BLUEPRINT

COLLISION REPAIR

Test Code: 4206
Version: 01

Preliminary Blueprint - final version is subject to slight changes.

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

Collision Repair (continued)

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)

Mechanical and Electrical Systems

Identify basic steering and suspension components
Verify functions of electrical systems 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

Collision Repair (continued)

Written Assessment:

Administration Time: 3 hours
Number of Questions: 146

Areas covered:

14%	Safety
10%	Business Fundamentals
12%	Metal Inert Gas (MIG)/Gas Metal Arc Welding (GMAW), and Squeeze-Type Resistance Spot Welding (STRSW)
15%	Structural Repairs
29%	Non-Structural Repairs
20%	Mechanical and Electrical Systems

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

Collision Repair (continued)

When a door intrusion beam is severely damaged in an accident,

A. replace the door shell
B. straighten the beam
C. repair the door skin
D. heat the beam

On a typical unibody vehicle, the anchoring points are located

A. under the front and rear frame rails
B. on the front and rear suspension
C. at the four corners of the center section
D. on the front and rear bumpers

Dollies are used for

A. identifying low spots
B. metal straightening
C. identifying high spots
D. shaping body plastic

One of the functions of hydraulic shock absorbers is to help control

A. jounce and rebound
B. radius and camber
C. radial runout
D. axle runout

A properly operating air conditioning (AC) system's low side system pressure is

A. 5 to 25 psi
B. 25 to 55 psi
C. 60 to 75 psi
D. 75 to 110 psi

A safety feature that is built into the electrical system and designed to break a circuit is a/an

A. fuse
B. condenser
C. alternator
D. ground

Performance Assessment:

Administration Time: 2 hours and 15 minutes
Number of Jobs: 3

Areas Covered:

46% **Welding**
Participant will adjust the welder, perform a vertical lap weld, vertical butt weld with backing, vertical plug weld, and shut down the welder.

40% **Sheet Metal Repair**
Participant will wear proper PPEs, clean the panel, straighten the damaged area, prepare panel for filler, mix and apply filler, and sand and shape filler.

14% **Vehicle Measurement**
Participant will safely measure wheel base and obtain the X measurement of the engine compartment.

Sample Job: Vehicle Measurement

Maximum Job 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.