

Blueprints



Job Ready Assessment Blueprint

Test Code: 4209/ Version: 01
Automotive Technician-Core

**Enhancing today's workforce
through tailored performance solutions**

Specific Competencies and Skills Tested in this Assessment:

Brakes (NATEF A-5)

- Diagnose and repair hydraulic systems
- Diagnose and repair drum brakes
- Diagnose and repair disc brakes
- Diagnose and repair power assist systems
- Diagnose and repair parking brake systems
- Diagnose and repair ABS (antilock brake systems) and TCS (traction control systems)

Electrical and Electronic Systems (NATEF A-6)

- Perform electrical/electronic system diagnosis
- Perform battery diagnosis and service
- Diagnose and repair starting systems
- Diagnose and repair charging systems
- Diagnose and repair lighting systems
- Diagnose and repair accessory devices and systems
- Diagnose and repair gauges, warning devices, and driver information systems



Engine Performance (NATEF A-8)

- Diagnose general engine performance
- Diagnose ignition systems
- Diagnose and repair fuel, air induction, and exhaust systems
- Diagnose and repair emissions control systems
- Diagnose and repair computerized engine control systems and intermittent issues
- Perform engine related service

Suspension and Steering (NATEF A-4)

- Diagnose, service, and repair steering systems
- Diagnose, service, and repair suspension systems
- Perform wheel alignment diagnosis, adjustment, and repair
- Diagnose, service, and repair wheels and tires

Specific Competencies and Skills (continued)

Customer Relations and Shop Procedures

- Interpret and estimate repair and work orders
- Utilize shop service information
- Exhibit understanding of appropriate customer interactions
- Exhibit understanding of environmental requirements
- Display understanding of safe working environment and shop procedures

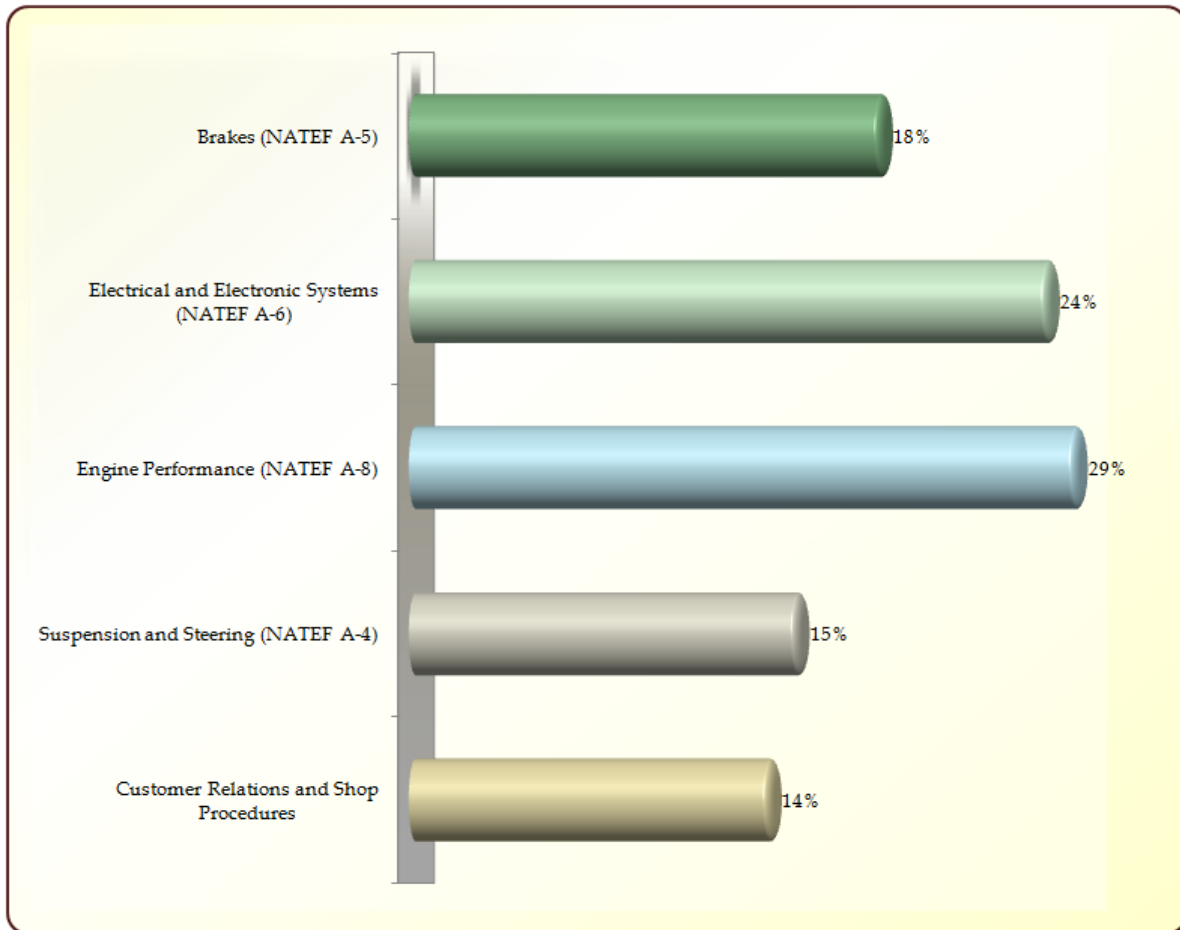


Written Assessment:

Administration Time: 3 hours

Number of Questions: 127

Areas Covered:



Sample Questions:

What component is the brain of the anti-lock brake system (ABS)?

- A. electronic controller
- B. fluid reservoir
- C. vacuum booster
- D. solenoid body

The waste spark ignition system will fire

- A. two plugs at different times
- B. one plug at a time
- C. two plugs at the same time
- D. three plugs at the same time on a V-6

A bulge in the tread of a tire could indicate

- A. a broken belt in the tire
- B. the tire is over inflated
- C. the shocks are worn out
- D. the wheel is bent

The service charge for a job that requires 42 minutes at \$60.00 an hour would equal

- A. \$28.50
- B. \$34.40
- C. \$42.00
- D. \$72.10

Most fuel pressure regulators increase fuel pressure as

- A. the vacuum decreases
- B. oil pressure increases
- C. the vacuum increases
- D. oil pressure decreases

Performance Assessment:

Administration Time: 1 hour and 40 minutes

Number of Jobs: 4

Areas Covered:

33% Brakes (NATEF A-5): Disc Brake Assembly Service

Remove caliper mounting bolts, remove and replace brake pads, record caliper mounting bolt torque specs, remount and torque caliper, measure and record rotor thickness and manufacturer's discard specs, set up rotor on lathe and resurface, measure and record post-cut rotor thickness, rotor specifications, and time to complete Job 1.

35% Electrical and Electronic Systems (NATEF A-6): Test and Diagnose Battery, Starting, and Charging System

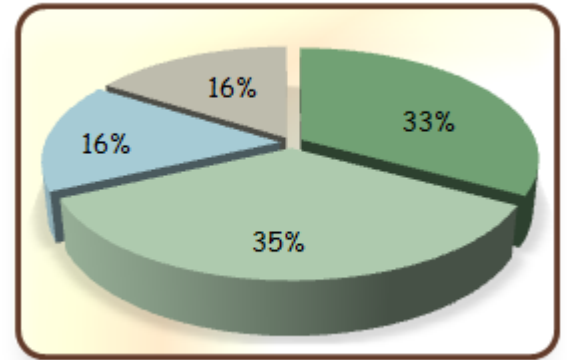
Perform open circuit voltage test, look up and record battery load test specs, perform battery capacity test, record findings, look up and record starter draw specs, perform starter draw test, record findings, perform ground circuit voltage drop test, record findings, look up and record manufacturer's alternator output specs, perform alternator output test and record findings, record alternator recommendations, and time to complete Job 2.

16% Engine Performance (NATEF A-8): Test Electronic Engine Control Component

Retrieve and document numerical trouble codes, use service information to identify trouble code(s) set, identify and locate trouble code components, do not clear codes or repair, and time to complete Job 3.

16% Suspension and Steering (NATEF A-4): Tire Service and Balance

Dismount the tire from the wheel, mount replacement tire on wheel, inflate tire to 28 psi, balance tire and wheel assembly, and time to complete Job 4.



Sample Job: Suspension and Steering (NATEF A-4): Tire Service and Balance

Maximum Time: 20 minutes

Participant Activity: The participant will dismount the tire from the wheel, mount replacement tire on wheel, inflate to 289 psi, balance tire and wheel assembly, and notify evaluator for inspection.

