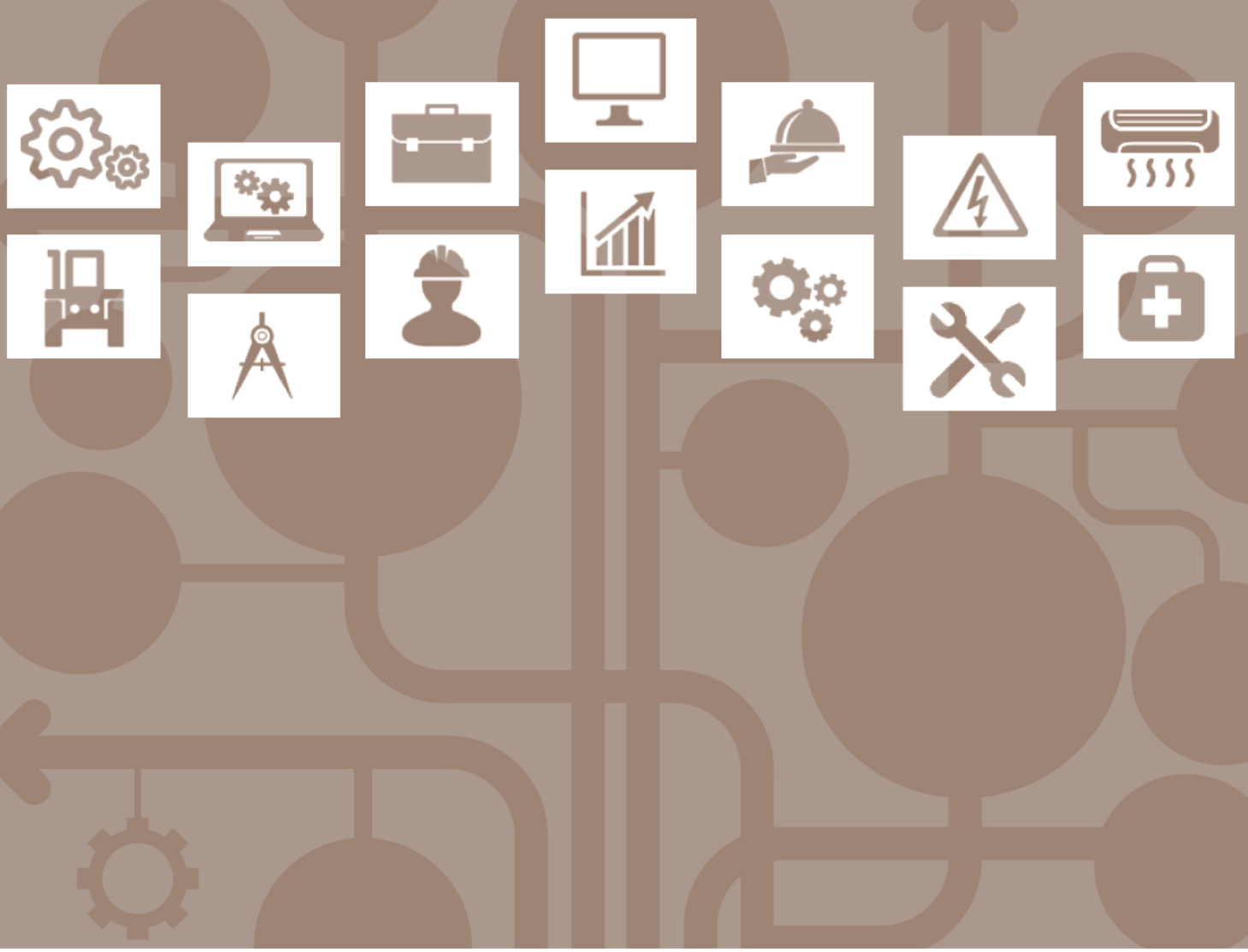
Nocti Business Solutions®
Your Corporate Assessment Provider
www.noctibusiness.com

Entry Level Assessment Blueprint

Automotive Technician - Core



Test Code: 4309 / Version: 01

Specific Standards and Competencies Included in this Assessment:

Engine Repair

- Inspect and service general engine issues, including adjusting valve trains
- Inspect, test, and service lubrication and cooling systems

Automatic Transmission and Transaxle

- Check fluids on transmission/transaxle
- Perform in-vehicle transmission/transaxle inspections and service
- Describe and identify operational characteristics of transmission/transaxle for CVT and hybrids

Manual Drive Train and Axles

- Check fluid condition and service transmissions and transaxles
- Perform clutch master cylinder inspections and service
- Identify, describe, inspect, and service manual transmission and transaxle issues
- Inspect and service drive shaft, half shafts, universal, and constant-velocity (CV) joints
- Inspect and service differential case assembly
- Inspect and service four wheel drive and all wheel drive systems

Suspension and Steering

- Perform related suspension and steering systems inspection and service
- Perform vehicle pre-alignment inspection and ride-height
- Inspect and service wheels and tires

 Copyright © Nocti Business Solutions, Inc. All Rights Reserved

Specific Standards and Competencies continued:

Brakes

- Inspect and service hydraulic system
- Inspect and service drum brakes
- Inspect and service disc brakes
- Inspect and service power-assist units
- Inspect and service miscellaneous systems (e.g., wheel bearings, parking brakes, electrical)
- Identify and describe electronic brakes, traction, and stability control systems

Electrical and Electronic Systems

- Inspect and service general electrical/electronic systems
- Inspect and service batteries
- Inspect and service starting systems
- Inspect and service charging systems
- Inspect and service lighting systems
- Inspect and service accessories

Heating and Air Conditioning

- Inspect and service refrigeration system components
- Inspect and service heating, ventilation, and engine cooling systems
- Inspect and service operating systems and related controls

Engine Performance

- Inspect and service general engine performance
- Identify and describe computerized controls
- Inspect and service fuel, air induction, and exhaust systems
- Inspect and service emissions control systems

 Copyright © Nocti Business Solutions, Inc. All Rights Reserved

Specific Standards and Competencies continued:

Customer Relations and Shop Procedures

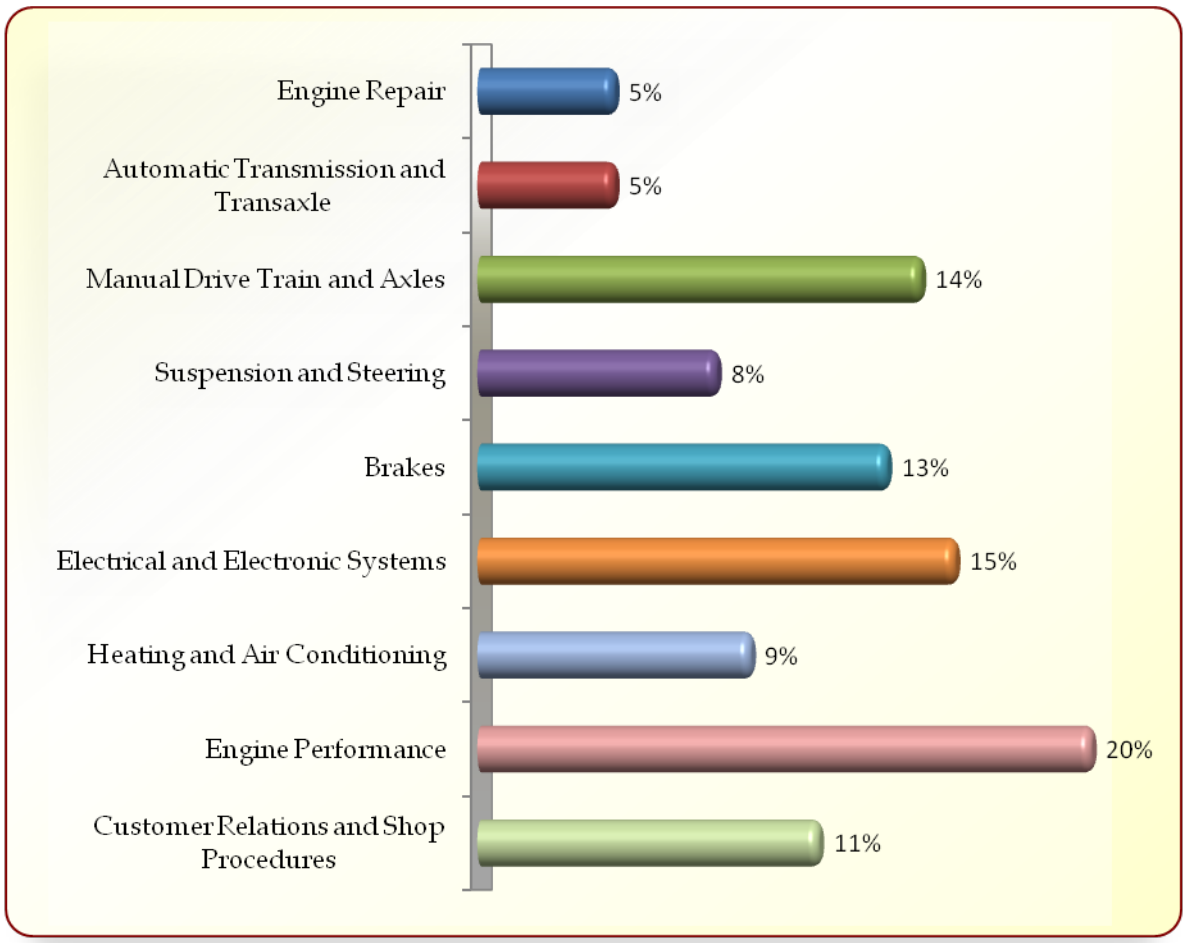
- Interpret and estimate repair and work orders
- Utilize computerized and written vehicle service information
- Exhibit understanding of appropriate customer interactions
- Exhibit understanding of automotive, environmental, and hazardous materials
- Display understanding of safe work environment and shop procedures
- Identify proper tool handling and maintenance procedures

Copyright © Nocti Business Solutions, Inc. All Rights Reserved

Written Assessment:

Administration Time: 3 hours
Number of Questions: 172

Areas Covered:



Copyright © Nocti Business Solutions, Inc. All Rights Reserved

Sample Questions:

Coolant in the engine oil would most likely indicate a
A. Leaking water pump
B. Cracked engine block
C. Leaking head gasket
D. Leaking oil cooler

When installing a new transmission rear seal,
A. The inner and outer lips should be installed dry
B. The inner lip should be lubed with the fluid it is sealing
C. The inner lip should be coated with RTV
D. Lapping compound should be used for a quicker seal

A typical rear axle lube would be
A. 10W-30
B. Dexron III®
C. GL5 85W-90
D. Mercon®

Servicing the fluid on a rear differential without a drain plug may require
A. Axle shaft removal
B. Driveshaft removal
C. A suction gun
D. A grease gun

The technician bleeds the power steering system by
A. Opening a bleeder valve
B. Removing the pressure line
C. Removing the return line
D. Turning the steering wheel

Proper dynamic tire balancing can help to alleviate
A. Torque steer reaction
B. High speed steering wheel shimmy
C. Front end pull
D. Low speed steering wheel shimmy

Seal materials used for high temperature applications are usually made from
A. leather
B. rubber
C. nitrile
D. silicone

Copyright © Nocti Business Solutions, Inc. All Rights Reserved

Sample Questions continued:

When replacing a wiper blade, what should the technician do?

A. Leave the wiper arm up and unattended.
B. Change the blade when the arm is in the parked position.
C. Place a fender cover under the raised arm when the blade is being installed.
D. Replace the worn one and make sure the new one is on the driver's side.

When checking for a no or low heat condition in a car, the technician should

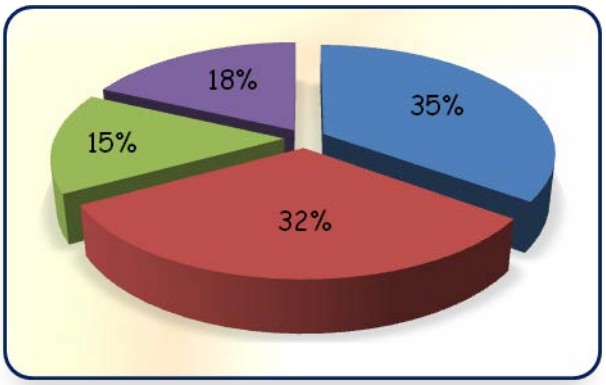
A. Verify the coolant temperature
B. Replace the heater core
C. Replace the thermostat
D. Verify the refrigerant charge

The emission control system that admits air into the exhaust system is known as a/an

A. PCV system
B. Clean air package
C. Air injection system
D. EGR valve

 Copyright © Nocti Business Solutions, Inc. All Rights Reserved

Performance Assessment:



Administration Time: 1 hour and 50 minutes
Number of Jobs: 4

Areas Covered:

35% **Brakes: Disc Brake Assembly Service**

Participant will follow procedures to remove caliper mounting bolts and replace brake pads. Steps will require the participants to remount and torque caliper, measure and record required specifications and adhere strictly to all safety procedures.

32% **Electrical/Electronic Systems: Test and Diagnose Battery, Starting, and Charging System**

Participant will perform an open circuit voltage test, battery capacity test, starter draw test, ground circuit voltage drop test, and alternator output test. Steps will require the participant to look up and record specifications throughout the diagnosis.

15% **Engine Performance: Test Electronic Engine Control Component**

Participant will retrieve and document numerical trouble codes using service information to identify the trouble code(s) set. Participant will locate components on a vehicle that relate to the trouble codes identified.

18% **Suspension and Steering: Tire Service and Balance**

Participant will demonstrate the ability to dismount a tire from a wheel and mount a replacement tire on the wheel. Steps will include inflating the tire to 90% maximum inflation, balancing the tire and wheel assembly, and following safety standards.

Copyright © Nocti Business Solutions, Inc. All Rights Reserved

Sample Job: Suspension and Steering: Tire Service and Balance

Maximum Time: 15 minutes

Participant Activity: The participant will dismount the tire from the wheel, mount replacement tire on wheel, inflate to 28 psi, balance tire and wheel assembly, and notify evaluator for inspection.

Copyright © Nocti Business Solutions, Inc. All Rights Reserved