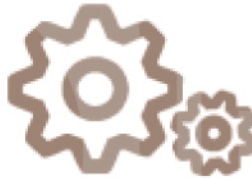


*Experienced Worker Assessment Blueprint*

*Diesel Mechanics*

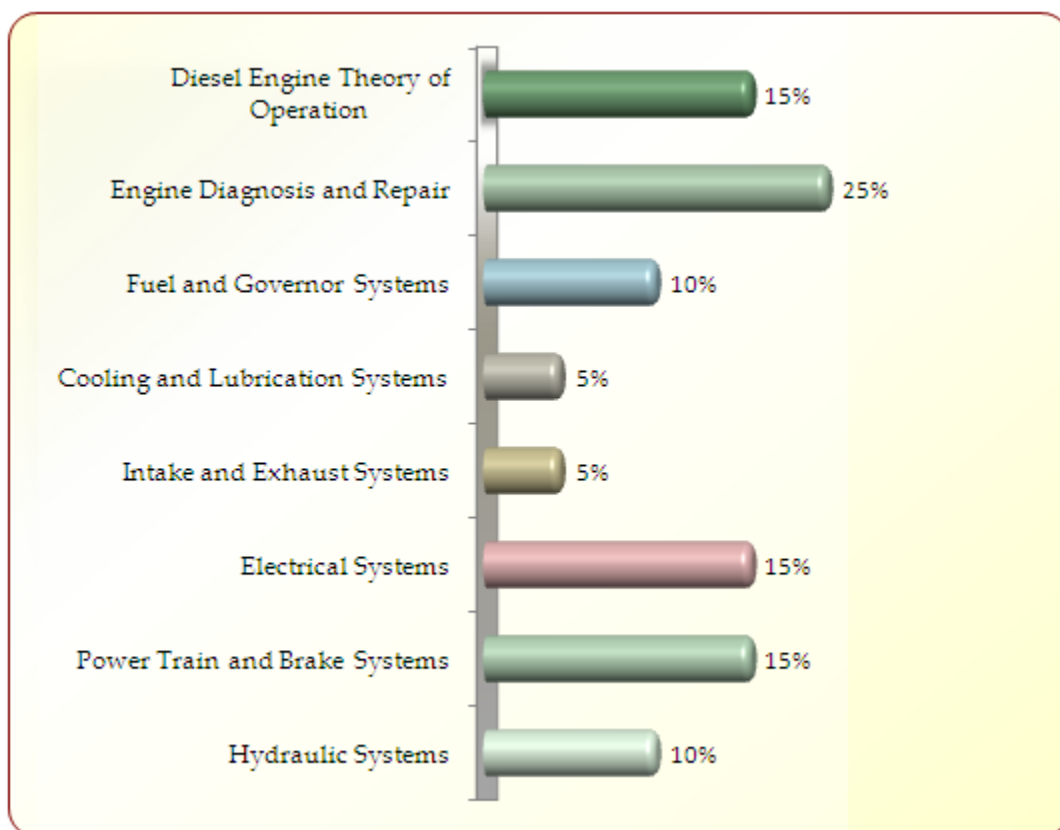


## Written Assessment:

**Administration Time:** 3 hours

**Number of Questions:** 200

### Areas Covered:



## Sample Questions:

In the four-stroke cycle engine, the sequence of the strokes of the piston required to complete one cycle are

- A. power, exhaust, compression, intake
- B. intake, compression, power, exhaust
- C. compression, power, intake, exhaust
- D. exhaust, intake, power, compression

An inspection of the camshaft and its parts reveals that the thrust surface of the balance weight hub is slightly scratched, though not severely scored. Your recommendation should be to

- A. smooth up the damaged surface with an oil stone
- B. use the hub as it is, since it is satisfactory for the further usage
- C. replace the thrust washer that faces the damaged surfaces
- D. install a new balance weight and hub assembly

The fuel output of the injectors used on different GM engines is controlled by the

- A. size of the spray tip holes
- B. angle of the helix
- C. length of the spill deflector
- D. size of the plunger

In a no output situation, an AC charging system can be tested by \_\_\_\_\_ the alternator to find if either the alternator or the regulator is at fault.

- A. full fielding
- B. charging
- C. disassembling
- D. none of the above

The function of an unload valve is to

- A. bypass flow to the tank when set pressure is maintained on its pilot part
- B. dump a cylinder for fast return
- C. direct the oil to the pump when the load becomes too great
- D. dump the load oil when extreme temperatures are reached



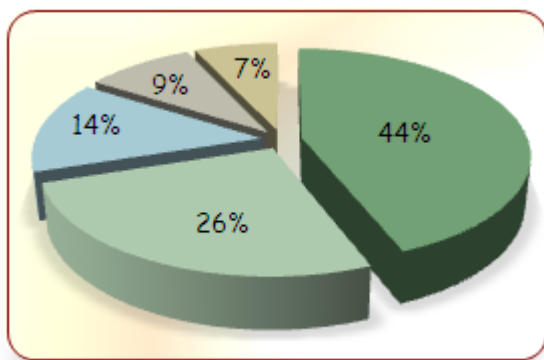
## Performance Assessment:

**Administration Time:** 4 hours

**Number of Jobs:** 5

### Areas Covered:

- 44% **Replace Cylinder Kit** (Mack, Detroit, Caterpillar or Cummins engine)
- 26% **Locate and Replace Faulty Injector** (Cummins or Detroit engine)  
OR  
**Locate, Test and Replace Faulty Nozzle** (Caterpillar or Mack engine)
- 14% **Electrical Systems – Troubleshoot Faulty Regulator**
- 9% **Cooling Systems – Remove and Test Thermostat**
- 7% **Lubrication System Test**



**Sample Job:** Cooling Systems - Remove and Test Thermostat

**Estimated Job Time:** 20 minutes

**Participant Activity:** The participant is to locate and remove thermostat from diesel engine, place thermostat in water, slowly raise water temperature, record opening temperature and total open temperature. Participant is to assess thermostat against rating printed on thermostat, record "good" or "defective" and set thermostat in place.

