

Semester II Exam – Mechanics - 2013

Name: _____

Match the following with the correct terms.

Thermostat housing

Bad water pump seal

Leaking engine freeze plug

Loose fan belt

Cooling system hydrometer

Gauge tester

Expansion freeze plugs

Flushing

Coolant leaks

Pressure tester

Combustion leak test

Overcooling

1. _____ Checks for the presence of gases in the engine coolant.
2. _____ A hand operated pump used to pressurize the cooling system for leak detection.
3. _____ May be indicated by slow engine warm-up, insufficient warmth from the heater, low fuel economy, and sluggish engine performance.
4. _____ Show up as wet, discolored areas in the engine compartment or on the ground.
5. _____ Should be done when rust or scale is found in the system
6. _____ Used to measure the freezing point of antifreeze solution.
7. _____ Installed by tightening a nut, which causes the plug to expand and lock in the hole.
8. _____ Will slip and may rotate the water pump and fan too slowly.
9. _____ Fitting for the upper radiator hose.
10. _____ To check for this, pressure test the system and watch for leakage at the pump.

Use the following word bank to fill in the blanks:

Stethoscope	Lubrication service	Dry stick lubricant
Vacuum hose	Coolant	Silicone lubricant
Vehicle maintenance	Graphite	Clutch fluid
Oil	Grease gun	Chassis grease

1. A _____ is useful for locating hissing sounds, rattle, whines, and leaks.
2. An excellent lubricant for door and truck locks is _____.
3. Overfilling can cause the _____ to foam, which reduces its lubricating ability.
4. Checking fluid levels, inspecting condition of all fluids, changing engine oil and filters and changing automatic transmission fluids are all tasks completed during _____.
5. To pinpoint the source of internal part noises and problems, use a _____.
6. A _____ is used to force lubricant into small fittings.
7. A good, all-around lubricant that can be used on easy to reach hinges and latches is _____.
8. _____ is especially suited for rubber door weather stripping.
9. It is desirable to use _____ on strikers.
10. Any operation that will keep cars in good running condition is considered _____.

Match the definitions to the correct term:

RTV sealer	Anaerobic sealer	Helicoil	Die
Tapping screw	Torque specifications	Tap	Thread chaser
Bolt head markings	Bolt size	Lock washer	Bolt length

1. _____ A threaded tool for cutting internal threads in holes.
2. _____ Will repair damaged internal threads and allow use of the original size bolt.
3. _____ Is used between two smooth, true surfaces, not on thin, flexible flanges.
4. _____ Specify the tensile strength of the bolt.
5. _____ A measurement of the outside diameter of the bolt threads.
6. _____ Tightening values given by the auto manufacturer.
7. _____ Cuts external threads.
8. _____ Is used to form a rubber-like gasket on thin, flexible flanges.
9. _____ Is used for cleaning up slightly damaged internal and external threads.
10. _____ Measured from the bottom of the bolt head to the threaded end of the bolt.

Matching:

Parallel circuit . Current . Atom . Resistance . Fuse
Relay . Integrated circuit . Insulators . Voltage . Conductors
. Short circuit . Electricity

1. _____ The opposition to current flow
2. _____ Protects a circuit against damage caused by a short circuit.
3. _____ Consists of small particles called protons, neutrons, and electrons.
4. _____ The flow of electrons through a conductor.
5. _____ Contains almost microscope diodes, transistors, resistors, and capacitors in a chip.
6. _____ The force or electrical pressure that causes current flow .
7. _____ The movement of electrons from atom to atom.
8. _____ These do not contain free electrons.
9. _____ Caused when a defective wire or component touches ground.
10. _____ Have atoms that allow the flow of electricity; contain free electrons.

Match the following statements with terms:

1. _____ Measures amount of turning force applied to a fastener.
2. _____ Commonly used to measure negative pressure or suction.
3. _____ Can easily measure one thousandths of an inch.
4. _____ Used to measure small clearances or gaps between parts.
5. _____ Used to measure part movement in thousandths of an inch.
6. _____ Originated from sizes taken from the parts of the human body.
7. _____ Can make inside, outside, and at times, depth measurements with considerable accuracy.
8. _____ Used to interchange and find equals for fractions, decimals, and millimeters.
9. _____ Uses a power of 10 for all basic units.

10. ____ Used when making external measurements where 1/64 in. is sufficient.

Complete the following sentences:

1. The _____ is specialized stall used to work on a car's steering and suspension system.
2. _____ is caused by breathing toxic or poisonous substances into the lungs.
3. _____ can result from hundreds of different accidents.
4. Using an improperly grounded electric power tool can result in _____.
5. The result of a "hot wire" touching ground is an _____.
6. _____ can be caused by solvents, battery acid, and other shop substances.
7. A _____ is an area where a car can be pulled into the shop for repairs.
8. _____ has the potential for causing tremendous fires.
9. The _____ contains a lift for raising a car into the air.
10. When hydrogen gas surrounds the tip of a car battery being charged or discharged, the battery can _____.

Electrical fire . Front End Rack C. Explode . Respirator . Asphyxiation
. Chemical Burns . Gasoline . Electric shock . Tool room . Grease rack
. Shop stall . Physical injuries

Match the following power tool terms:

1. ____ Useful during various driving and cutting operations.
2. ____ Used to weld metal parts together.
3. ____ Removes grease and oil from parts.
4. ____ Used to cut, bend and weld or braze metal parts.
5. ____ Source of pressurized air for the auto shop.
6. ____ Impact type wrench designed for working in tight corners.
7. ____ Very quick method for installing or removing threaded fasteners.
8. ____ Supports a car during repair.
9. ____ Connected to the metal lines from the air compressor.
10. ____ Commonly used to dry and clean parts washed in solvent.

Impact wrench . Engine crane . Oxyacetylene torch . Blow gun
. Cold solvent tank . Air ratchet . Drill bit . Air hoses . Air compressor
. Air hammer . Jack Stand . Arc welder

Match the following careers with the definitions below:

1. _____ Is in charge of other mechanics in a large garage.
 2. _____ Tests and adjusts fuel, ignition, and emission systems.
 3. _____ Works under an experienced mechanic.
 4. _____ Selects, organizes, and assigns each auto repair area of a large garage or dealership.
 5. _____ Responsible for the entire service and repair areas of a large garage or dealership.
 6. _____ Checks and replaces, and adjusts steering and suspension components.
 7. _____ An expert on one system of a car.
 8. _____ Experienced professional who has mastered all specialized areas and can work on any part of a car.
 9. _____ Tests and repairs lighting systems, charging systems, computer control systems, starting systems, etc.
 10. _____ Status granted for each NAISE test passed.
- . Specialized mechanic . Apprentice . General Mechanic . Service Manager
- . Certified technician . Front end mechanic . Shop supervisor . Tune-up technician
- . Service dispatcher . Electrical system technician . Service station attendant . service writer

Please match the following with the correct term:

1. _____ Contains a transmission and a differential in one case.
2. _____ Used to engage or disengage the engine and transmission.
3. _____ Reduces friction and wear between internal engine parts.
4. _____ Uses an internal hydraulic system to shift gears.
5. _____ Transfers turning force from the engine crankshaft to the drive wheels.
6. _____ Replaces electrical energy used during the starting operation.
7. _____ Produces extremely high voltage that operates the spark plugs.
8. _____ Allows the driver to change gear ratios and engine torque going to drive wheels on rear wheel drive car.

9. _____ Transfers power from the transmission to the rear axle assembly.

10. _____ Contains a differential and two axles.

. Lubrication system . Power rain . Drive shaft . Ignition system . Ignition System

. Charging system . Transaxle . Automatic transmission . rear Axle assembly

. Manual transmission . Engine cooling system . Starting system