**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 an dfan 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 solventrs, 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, organized, and assigns each auto repair areas 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