Name: Date:

Year/Sec:

**General Rules:**

* **Use black ink ballpen only.**
* **No erasure/s (any form of erasure means wrong).**
* **Cheating is prohibited.**
* **Read carefully before answering.**
* **Wrong spelling means wrong.**
* **USE CAPITAL LETTER.**

**Test I.**

**Directions:**

**Multiple Choice:** Select the best answer that corresponds to the statement.

1. Referred to as one-part sealants and are supplied ―ready for us as Packaged.

a. Curing sealant b. Pliable sealant c. Drying sealant d. All of the above

2. Set and cure by evaporation of solvent.

a. Curing sealant b. Pliable sealant c. Drying sealant d. Aerobic sealant

3. Once the sealant has been applied, the parts must be

a. joint b. torque c. rivets d. all of the above

4. This manual supplies all the necessary routine information about operating and servicing your vehicle.

1. Owner’s Manual B. Service Manual C. Manufacturer’s Manual

5. This type of manual describes the parts and the operation of all the vital components and explains complex procedures.

A. Owner’s Manual B. Service Manual C. Manufacturer’s Manual

6. Covers vehicles produced by that company, usually for a one year period.

1. Manufacturer’s Manual B. General Repair Manual C. Specialized Service Manual

7. A manual covers only specified repair areas.

A. Manufacturer’s Manual B. General Repair Manual C. Specialized Service Manual

**8.** This manual sold by companies other than the major auto makers.

1. Manufacturer’s Manual B. General Repair Manual C. Specialized Service Manual

9. As a safety precaution, which of the following safety devices should be worn in steam-cleaning engine parts?

a. face shield b. rubber gloves c. all of the above

10. Which of the following injuries will be caused by compressed air if used to clean clothes, hands or body soiled with flammable cleaning solvent?

a. pimples b. burn c. blood poisoning

**Test II.**

**Directions:**

**Multiple Choice:** Select the best answer that corresponds to the statement.

1. Referred to as one-part sealants and are supplied ―ready for us as Packaged.

a. Curing sealant b. Pliable sealant c. Drying sealant d. All of the above

2. Set and cure by evaporation of solvent.

a. Curing sealant b. Pliable sealant c. Drying sealant d. Aerobic sealant

3. Catalyst-cured sealants have an advantage over drying sealants because they are transformed from fluid or semi fluid state into a solid by chemical reaction rather than by evaporation of a solvent.

a. Drying sealant b. Curing sealant c. Aerobic sealant d. Pliable sealant

4. Glass, stone, wood and metals are types of \_\_\_\_\_\_\_\_\_.

a. sealants b. adhesive c. epoxy d. surface materials

5. It is used to create an impenetration barrier to gas or moisture.

a. sealant b. adhesive c. urethane d. epoxy

6. A product which use to bond between two different or similar materials.

a. Sealants b. Adhesives c. Urethane d. Epoxy

7. It is added and mixed just prior to sealant application.

a. chemical catalyst b. Adhesive c. Epoxy d. Urethane

8. Supplies that are known for their hardness and are used with more substances.

a. Epoxies b. Urethanes c. Sealants d. Adhesives

9. Supplies used for flexible materials in high impact applications.

a. epoxy b. urethanes c. sealants d. adhesive

10. Once the sealant has been applied, the parts must be

a. joint b. torque c. rivets d. all of the above

**Test III. Multiple Choice**

**Direction:** Select the one correct, best, or most probable answer to each question. You can find the answer in the section indicated at the end of each question.

1. Pitch in USC threads is:

a. distance between individual threads

b. number of threads per inch

c. depth of the threads

d. thread class

2. Pitch in metric threads is the:

a. thread class

b. number of threads per inch

c. depth of the threads

d. distance between individual threads

3. Technician A says the more lines there are on the head of a USC bolt, the stronger the bolt. Technician B says the higher the number of the head of a metric bolt, the stronger the bolt. Who is right?

a. A only b. B only c. both A and B d. neither A nor B

4. Nuts and bolts that have a continuous resistance turning are:

a. prevailing-torque fasteners

b. torque-to-yield fasteners

c. used with a cotter pin

d. self-tapping setscrews

5. Bolts that are tightened by measuring how much head is turned are:

a. prevailing-torque fasteners

b. torque-to-yield fasteners

c. used with a cotter pin

d. self-tapping setscrews

6. Before installing a bolt in an aluminum part, coat bolt threads with antiseize compound to:

a. lock the bolt in place

b. prevent thread damage when removing the bolt

c. turn the bolt with less torque

d. none of the above

7. Technician A says the lower the aspect ratio the wider the tire appears. Technician B says aspect ratio is the ratio of the tires section height to section width. Who is right?

a. A only b. B only c. both A and B d. d. neither A nor B

8. All the following are true about radial tires except

a. all plies run parallel to each other

b. there is less squirm than with bias-ply tires

c. a belt steel mesh or other material is applied over the plies

d. a radial tire has greater rolling resistance than bias plies

9. Recommend inflation pressures for the front and rear tires on the car are listed in the

a. VECI label b. tire information label c. VIN number d. sidewall markings

10. If two radials and two non-radials are on the vehicle, the radials should be

a. on the front c. removed from the vehicle

b. on the rear d. inflated to a higher pressure

**Test IV. Modified Multiple Choice**

Direction: Choose the answer on the following below. Use the space provided before each number

CELL CONNECTIONS CELLS CASE VENT CAPS CELL PARTITIONS

ELECTROLYTES TERMICAL POST SEPARATORS PLATES COVER

BATTERY SLI BATTERY WET CELL BATTERY Li-On BATTERY GEL CELL BATTERY

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_1. Composed of a solution that consists of sulfuric **acid** with the regular water.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_2. Keep the two electrodes apart to prevent electrical short circuit.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_3. It holds and serves as the housing of the battery components.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_4. Protects it from moisture that can cause short circuit.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_5. Designed to safely vent any gas.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_6. The electrical contacts used to connect charge to a single or multiple cell battery..

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_7. Welded on the top of each cells to provide an electrical connections to the terminal post.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_8. It consist of positive and negative plates with separators between them.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_9. These are also a part of the battery case which serves a divider of each cells.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_10. Supplies electrical current to a motor vehicle.

Test V.

**Identifications**

**Direction:** Identify what is being stated in each item.

1. What is being produced when a magnet with a south and north poles (rotor) have a contact inside a coiled wire (stator)?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. It rotates inside the stator which is driven by a pulley attached to the engine.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A major component of the alternator that regulates the flow of the current.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. This component converts the alternating current to direct current.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. It is where the alternating current flows before it will transform to direct current.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. The one that maintains/sustain the charge of the vehicle’s battery.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. It causes the rotor shaft rotates freely.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Connects the alternator from the crankshaft to receive a rotational force.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Lights that indicates an operational charging system that can usually see on the vehicles dashboard.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

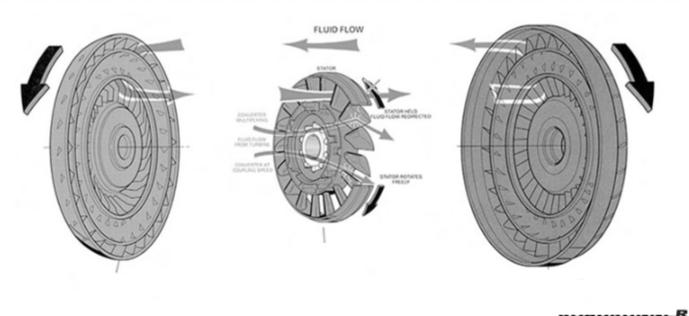
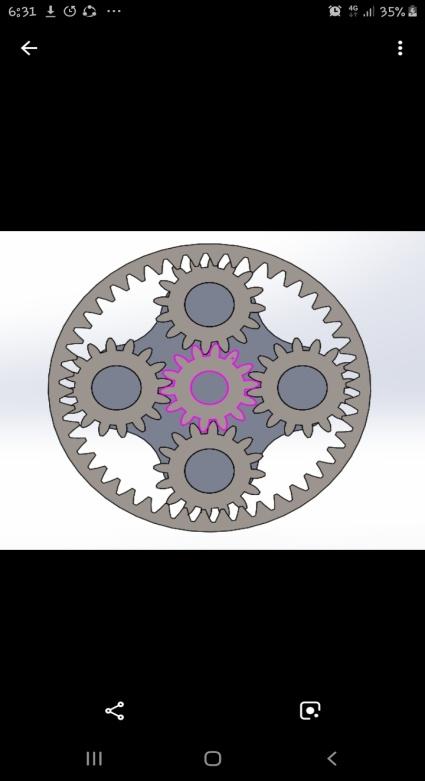
1. An electrical generator that converts mechanical energy to electrical energy in the form of alternating current.

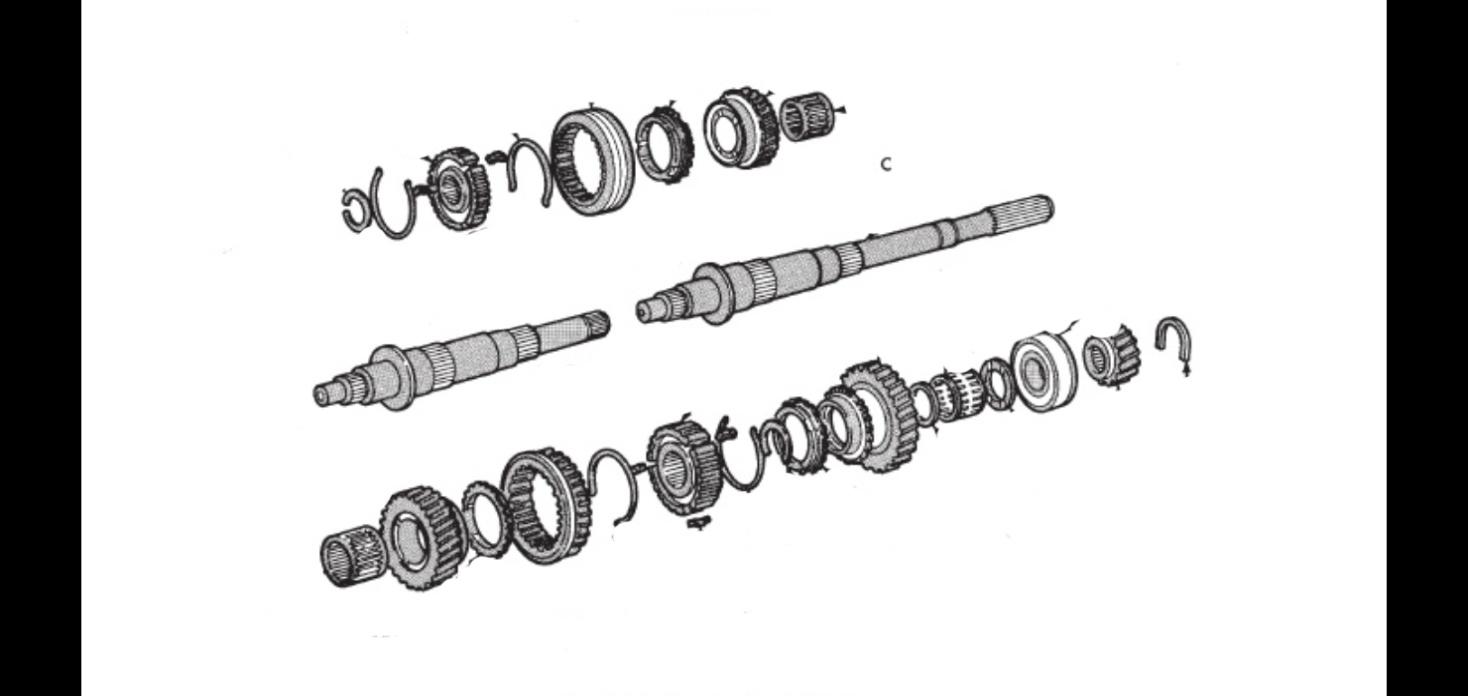
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Test VI..** Tagging

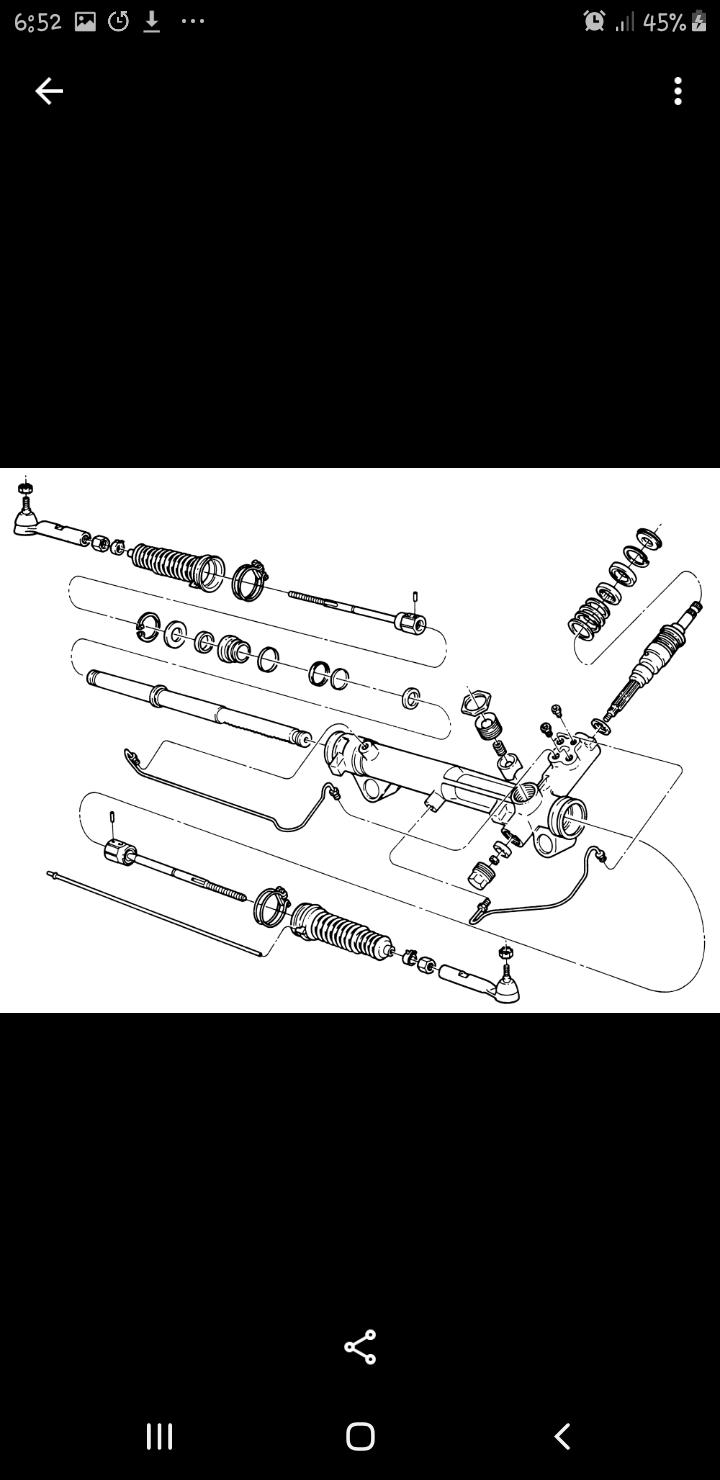
Direction: Name the parts of the following. Use lines with arrow head to point the parts.

**Transmission**





**Power Steering**



**Test VII.** Enumeration

Give the 3 functions of the suspension.

1.

2.

3.

Two main parts of the suspension

4.

5.

Five types of spring used in suspension system

6.

7.

8

9.

10.

**Test VIII. Modified Multiple Choice.**

Direction: Choose the answer on the following below. Use the space provided before each number

COOLING SYSTEM AIR COOLING SYSTEM WATER COOLING SYSTEM WATER PUMP

OVER FLOW TANK FREEZE PLUGS UPPER HOSE RADIATOR

THERMOSTAT ANTIFREEZE COOLING FAN HEATER CORE

PRESSURE CAP INORGANIC ORGANIC ETHANOL

PROPYLENE

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_1. The fluid that absorbs heat from the engine and then dissipates it through the radiator.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_2. The hot **coolant** is transferred back and forth between this **tank** depending on the pressure emitted from the hot **coolant**.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_3. Where the hot coolant passing through then gives off heat before returning to the engine cooling circuit.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_4. Designed to move air through the **radiator**.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_5. Prevents **coolant** loss and increases the **cooling** systems boiling point.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_6. It is designed to transfer heat from the hot coolant that flows through it to the air blown through it by the fan.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_7. It is connected between the thermostat and radiator inlet.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_8. Regulate the flow of engine coolant from the engine to the radiator.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_9. Relieves the pressure of the freezing water and partially draining your cooling system.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_10. The heart of the engine cooling system.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_11. A type of a cooling system which used fluid base component to cool the engine.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_12. This coolant is usually change after 2 years or every 24, 000 miles

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_13. Organic coolant has a content of \_\_\_\_\_\_\_\_\_\_\_\_\_.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_14. This is the standard method of cooling system used method to dissipate heat.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_15. A system that keeps air cool and dry.