Auto motive

Day 1
Just Front

Chapter 5

THE AUTO SHOP AND SAFETY

Name _____

Date _____ Period _____

Instructor _____

OBJECTIVE: After studying this chapter, you will be able to list the most important safety rules for the auto shop.

INSTRUCTIONS: As you study the text, complete the workbook problems.

TYPES OF ACCIDENTS

- List and explain the six types of accidents that can occur in an auto shop.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

GENERAL SAFETY RULES

7. When should you wear eye protection? _____

8. What does the phrase "a clown can kill" mean? _____

9. Asbestos dust is a cancer-causing agent found in brake and clutch dust. True or false?

10. Why must you respect running engines? _____

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Front + Back
DAY 2

Chapter 3

BASIC HAND TOOLS

Name _____

Date _____ Period _____

Instructor _____

OBJECTIVE: After completing this chapter, you will be better prepared to select and use hand tools.

INSTRUCTIONS: As you study the chapter in the text, complete the workbook problems.

USING TOOLS

1. Why should you buy quality tools? _____

_____

_____

2. Never open too many tool box drawers at once because the box could _____ _____.

● Match the statements with the correct tools.

_____ 3. Open jaw on both ends.
_____ 4. Closed jaws on both ends.
_____ 5. Hex or six-sided wrench.
_____ 6. Has box and open jaws.
_____ 7. Has adjustable jaws.
_____ 8. Used on ratchet.
_____ 9. Swivel joint for reaching around at different angles.
_____ 10. Used between socket and handle.

a. Extension.
b. Clutch head.
c. Ratchet.
d. Open end wrench.
e. Box end wrench.
f. Crescent wrench.
g. Allen wrench.
h. Combination wrench.
i. Socket.
j. Universal.

11. A full shank screwdriver can withstand light hammering and prying. True or false?

12. List four types of punches. 1. _____ _____, 2. _____ _____ _____, 3. _____ _____, 4. _____ _____.

13. Explain how a vise is used. _____

_____

_____

14. _____ _____ are needed for getting under and removing grease, gaskets, sludge, and carbon on parts.

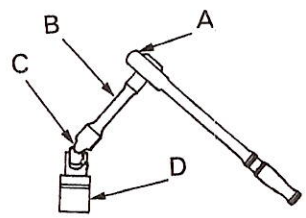
15. _____ and _____ tools are needed when small metal parts are dropped and cannot be reached by hand.

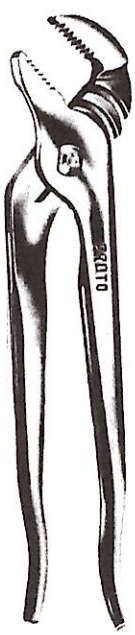
16. Pry bars are commonly used when adjusting engine belts. True or false?

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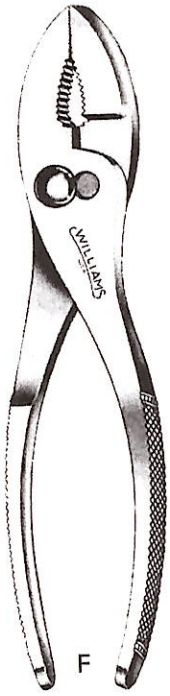
BASIC HAND TOOLS

● Identify the following hand tools. Write their names in the blanks.

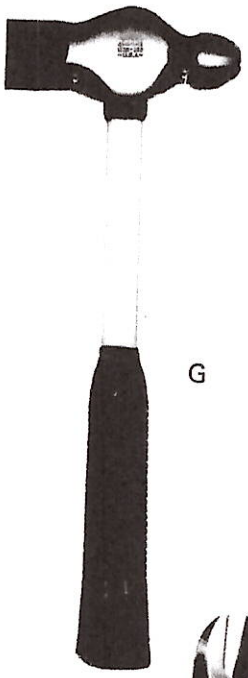




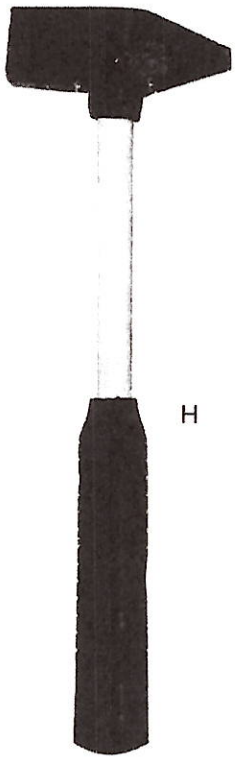
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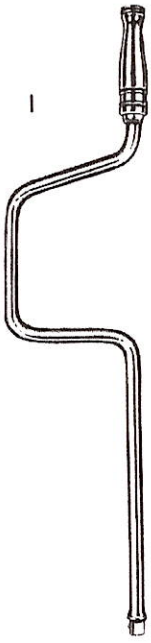
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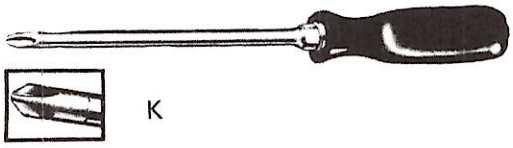
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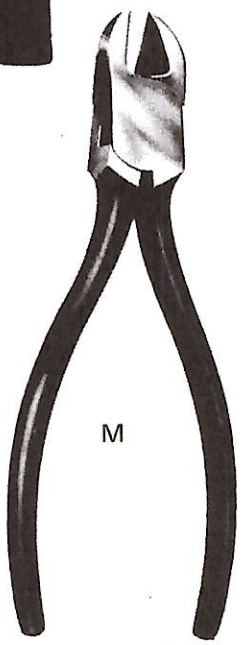


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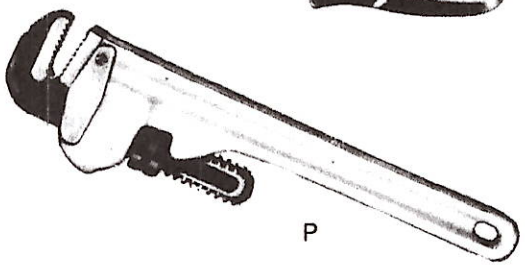
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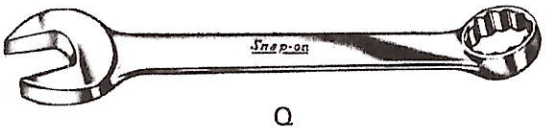
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O



P



Q



R



S



T



U

A. _____ H. _____ O. _____

B. _____ I. _____ P. _____

C. _____ J. _____ Q. _____

D. _____ K. _____ R. _____

E. _____ L. _____ S. _____

F. _____ M. _____ T. _____

G. _____ N. _____ U. _____

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Day 3

Front only

Chapter 2

AUTOMOTIVE CAREERS, CERTIFICATION

Name _____

Date _____ Period _____

Instructor _____

OBJECTIVE: After completing your workbook assignment, you will be able to describe the type of jobs available in automotive technology and explain certification tests.

INSTRUCTIONS: As you read the text, answer the following questions.

THE AUTO TECHNICIAN

1. An auto technician, also called auto _____, must be highly skilled—in a sense—a "_____."
2. An automotive technician must be capable of doing operations common to the following: A. Machinist. B. Plumber. C. Electrician. D. None of the above. E. All of the above.
3. What is an apprentice mechanic and what does he/she do? _____
4. What is a specialized technician? _____
5. What is a tune-up technician? _____
6. A _____ _____ is responsible for the complete service and repair area of a large garage or dealership.
7. A _____ _____ prepares shop work orders on cars entering the garage for repairs.
8. Certification tests for automotive technicians are administered by _____ (_____), also known as _____ (_____).
9. Sleeve or shirt patches and certificates for wall mounting are given for each certification test passed. True or false?

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Day 4 Front + Back

Chapter 35

COOLING SYSTEM FUNDAMENTALS

Name _____

Date _____ Period _____

Instructor _____

OBJECTIVE: After studying this chapter, you will be able to describe the operation of modern automotive cooling systems.

INSTRUCTIONS: As you study the text, complete the workbook problems.

BASIC COOLING SYSTEM

1. Explain cooling system operation.

_____

_____

_____

_____ _____

_____

2. Discuss the importance of proper engine operating temperature for best engine operation.

_____

3. Why is it important for an engine to warm up rapidly? _____

_____

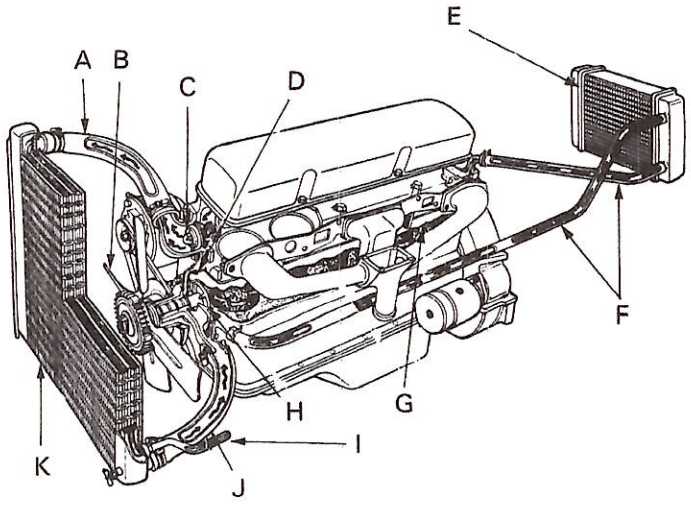
_____

4. Air cooling systems are more common than liquid systems. True or false?

5. Why is a spring commonly used in the lower radiator hose? _____

_____

● Identify the parts of the cooling system.



A. _____

B. _____

C. _____

D. _____

E. _____

F. _____

G. _____

H. _____

I. _____

J. _____

K. _____

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COOLING SYSTEM COMPONENTS

1. The _____ transfers coolant heat to the outside air.
2. The _____ _____ is the center section made up of tubes and fins.

● List and describe the six major parts of a water pump.

3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. Water normally boils at _____F or _____C. However, the radiator cap pressurizes the coolant to about ____ to ____ psi or ____ to ____ kPa which raises the boiling point.
10. A closed system uses an _____ _____ or _____ to prevent coolant loss.
11. What is a thermostatic fan? _____

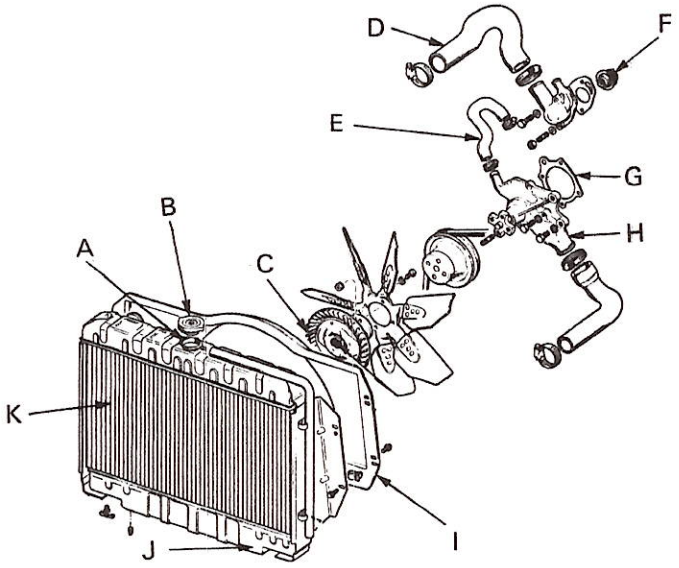
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12. In your own words, how does an electric engine fan system function? _____

_____

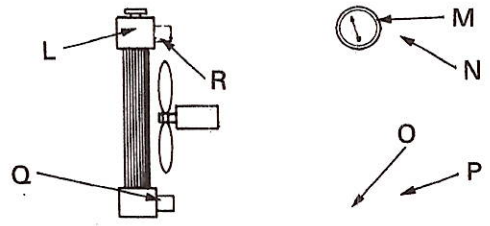
_____

● Identify the parts of the water pump and radiator.



A. _____ F. _____
B. _____ G. _____
_____ _____
C. _____ H. _____
D. _____ I. _____
_____ J. _____
E. _____ K. _____

● Draw the wires to complete the electric fan circuit in the off mode and label the parts.



L. _____ P. _____
M. _____ Q. _____
N. _____ R. _____
O. _____ _____

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5 Day

Chapter 7

SERVICE MANUALS

Name _____

Date _____ Period _____

Instructor _____

OBJECTIVE: After studying this chapter, you will be able to use factory and aftermarket service manuals.

INSTRUCTIONS: As you study the textbook chapter, complete the workbook problems.

SHOP MANUALS

1. Why are service manuals important tools? _____

_____

● Explain the following types of service manuals.

2. Manufacturer's manuals. _____

_____

3. Specialized service manuals. _____

_____

4. General repair manuals. _____

_____

_____

5. Specifications (_____ _____ _____, _____, _____, _____ _____) are given in _____ sections of manuals.

6. Which of the following are diagrams commonly found in service manuals? A. Wiring diagrams. B. Vacuum diagrams. C. Hydraulic diagrams. D. None of the above. E. All of the above.

● Write the equivalent for the abbreviations given below:

7. A/C = _____.
8. TDC = _____.
9. EGR = _____.
10. MC = _____.
11. O/S = _____.
12. TP = _____.
13. How is a flat rate manual used? _____

_____

_____

14. _____ _____ help the automotive technician stay up-to-date with recent technical changes, repair problems, etc.
15. After completing your studies in this text, you will find a service manual to be one of your _____ _____ _____.

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Chapter 8

BASIC ELECTRICITY AND ELECTRONICS

Name _____

Date _____ Period _____

Instructor _____

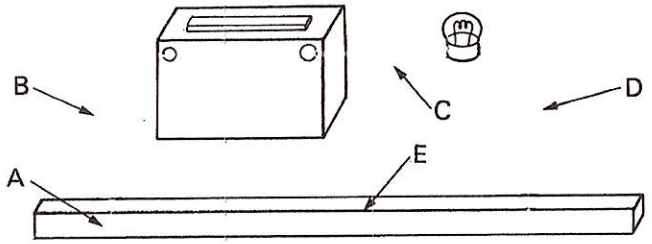
OBJECTIVE: After studying this chapter, you will be able to explain the basics of electricity and electronics.

INSTRUCTIONS: As you study the textbook, complete the workbook problems.

ELECTRICITY

1. An atom consists of small particles called, _____, _____, and _____.
2. Explain the electron theory of current. _____
3. What is Ohm's Law? _____
4. What is an insulator? _____

● Identify the parts and connect (draw) the wires of the frame ground circuit.



A. _____
B. _____
C. _____
D. _____
E. _____

● Explain the following terms and give their abbreviations.

5. Current. _____
6. Voltage. _____
7. Resistance. _____
8. A _____ _____ has more than one load in a single path.
9. A _____ _____ has more than one path or leg.
10. What is a frame ground circuit? _____

● Solve the following Ohm's Law problems.

11. If a circuit has 12 volts and 2 ohms, I or A would = _____.
12. If a circuit has 6 amps and 2 ohms, E or V would = _____.
13. If a circuit has 12 volts and .2 amps, ohms would = _____.

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