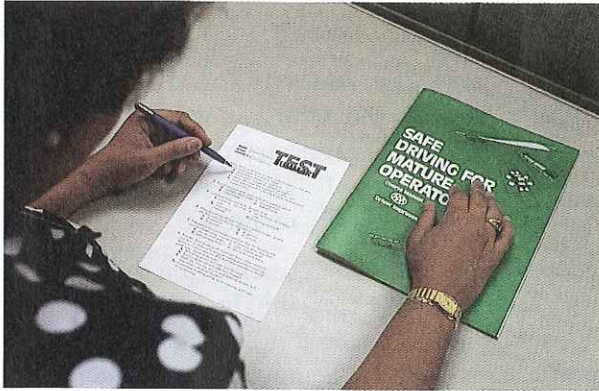


CHAPTER 18 OBJECTIVES

LESSON ONE



Getting Ready for the Knowledge Test

1. Name four ways in which you can prepare yourself for the knowledge test, and describe how you would go about implementing each.

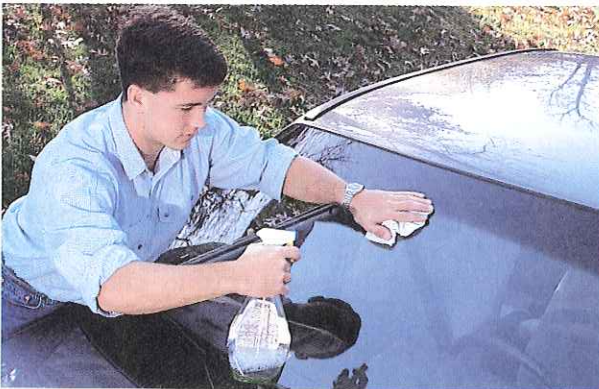
LESSON TWO



Getting Ready for the In-Vehicle Test

2. List three preparations you can make for the in-vehicle test, and explain how to carry out each of the preparations.

LESSON THREE



Getting the Vehicle Ready for the Test

3. Name two ways in which you can prepare your car for the in-vehicle test, and list the actions you should take before and on the day of the test.

LESSON FOUR



Taking the Final Test: The In-Vehicle Test

4. Name at least four guidelines to keep in mind when taking the in-vehicle test, and describe in detail what each guideline entails.



The first drivers' licenses in the United States were issued by the Board of Examiners of Operators of Automobiles in Chicago, Illinois on July 6, 1899.

To qualify for a driver's license, you have to show that you know the traffic laws in your state and that you have basic control of a motor vehicle. In addition to a vision test, you must pass a knowledge or written test and a driving performance test. Application and testing procedures for obtaining a driver's license vary from state to state. To find out what the requirements are where you live, check your state driver's manual or ask your driver education instructor.

In a number of states, your driver education teacher will administer the in-vehicle performance test, or road test, after you have passed a knowledge test. In some states your teacher will arrange for an examiner to come to your school to give the test. In both of these cases, you will take your in-vehicle performance test in the car you've been using during the driver education course. In other states, you must make your own arrangements with the department of motor vehicles to take all the necessary tests.

How Can You Prepare for the Knowledge Test?

Getting ready to take the knowledge test for your driver's license is not much different from preparing for a test in school. Study the material in advance, be well rested when you take the test, and think carefully before answering the questions.

Study Wisely

Your state driver's manual contains the information that you will need in order to study for the knowledge test. Follow these guidelines for studying the manual.

- ◆ Read one section at a time. Use a marker to highlight important information you think may be on the test, or keep a notebook in which you write this information.
- ◆ Reread the section and summarize it for yourself. Write your summary in your notebook.
- ◆ Study with someone else who is going to take the test, or ask a friend or family member to quiz you on information from the manual.
- ◆ Take the sample test, if there is one in your state's manual. If there's anything in the manual that you don't understand, ask your driver education instructor to explain it to you.
- ◆ Review the chapter and unit tests in this book. Look up the answers if you don't remember them.

Budget your study time. Don't wait until the last minute and then try to cram for the test. Figure out how much time you have to study. Then decide how much time you'll devote to studying each day or week, perhaps leaving additional study time just before you take the test.

Keep in mind that the real purpose of studying the driver's manual is not just to pass the test. Your true goal is to learn driving rules and safe practices so that you can be a responsible driver.

In the late 1800s Hermann Ebbinghaus conducted the first experiments to find out how human memory works. He found that the mind rapidly forgets information it has learned recently unless the learning is repeated frequently. His studies showed that each relearning takes much less time than the initial learning and slows the process of forgetting.

Get Yourself Ready Physically

Get a good night's sleep before the test. No matter how much you have learned, you'll never pass the test if you're too sleepy to think clearly.

Don't skip meals before taking the test. Eating right will keep your energy level high and help you focus your thoughts.

Bring the Necessary Papers

If you have to go to the department of motor vehicles office to take your test, you will have to bring several documents with you. You'll need proof of age and identity. The best proof of both is your birth certificate.

Some states require that you bring proof of having satisfactorily completed a course in driver education if you are under age 18 or 19. In most cases, a parent or some other adult who has a driver's license will have to accompany you.

Check the driver's manual or call the department of motor vehicles beforehand to find out the specific documents your state requires. People who work for a state's department of motor vehicles usually allow no exceptions to the rules. If the manual says to bring your Social Security card with you, then be sure to do so. Failure to bring necessary documents may result in your not being able to take the test.

Stay Calm

As you prepare for the knowledge test and on the day that you actually take it, stay calm.

Read each question carefully, and take time to think before selecting your answer. If you get stuck on a question, skip it and return to it later.

Don't let a tough question throw off your concentration. Just relax and keep going.

CHECKPOINT

1. How can you plan to study for the knowledge test?



WHAT WOULD YOU DO?

A friend tells you to skim through the manual right before the knowledge test, and cross your fingers. Is this good advice? Why or why not?





LESSON **Getting Ready for the**
TWO **In-Vehicle Test**



While most states still give road tests in actual traffic, some states do all their testing on closed courses. These tests stress parallel parking, turns, and turnabouts.

Passing the knowledge test is an important step toward obtaining your driver's license. The next step is demonstrating your driving ability during an in-vehicle test (sometimes called a road test).

How Can You Prepare for the In-Vehicle Test?

To pass the in-vehicle or road test, you need to show the examiner that you have a working knowledge of the rules of the road and that you have mastered basic driving skills. As with most tests, the key to success is advance preparation.

Know What You're Doing

Practice, practice, practice—that's the best advice for preparing for the

in-vehicle test. The more hours you spend behind the wheel, the more skilled and confident you will become as a driver.

When you practice driving, ask the person you're with to point out any areas in which you might need improvement. Spend extra time perfecting maneuvers you may find difficult, such as parallel parking or shifting a manual transmission smoothly. Determine if there are maneuvers, such as three-point turns, that are always covered in your locality. Practice these maneuvers as well.

Be alert for road signs as you practice. Be sure you understand what each sign means and what procedures you should follow at each. Review your driver's manual if you're uncertain about any sign or traffic rule.

Remember, too, that driving is more than just a series of physical movements. Becoming a good driver means exhibiting sound judgment and decision-making skills. In other words, knowing how to make a left turn is important, but knowing when it's safe to make the turn is even more important.

If possible, practice driving in the same vehicle in which you will take your test. Ideally, this should also be the vehicle you'll be driving *after* you get your license. At the very least, your practice vehicle should be similar to the one you'll be using. If, for example, you'll be using a stick shift on the day of the test, be sure to practice in a stick-shift vehicle.

Tips for New Drivers

Practicing for the In-Vehicle Test

When practicing your driving, remember to practice all the skills you may need to demonstrate, such as:

- parallel parking
- starting and stopping smoothly
- shifting gears
- backing up safely
- turning
- passing
- following at a safe distance
- signaling
- turnabouts



Be Alert and Ready

Many of the same suggestions made earlier about preparing yourself for the knowledge test apply for the in-vehicle test. To be at your best, get a solid night's sleep before the day of the test, and don't skip meals before the test.

Bring What You Need

For the in-vehicle test, you will need certain documents. Your state may require you to present your valid driver's permit as well as proof of vehicle registration and adequate insurance for the vehicle you're driving. You may also need proof that the vehicle has been properly inspected and has passed an emissions test. Check your state driver's manual to learn what documents your state requires.

Also take along enough money or a check to pay the licensing fees, and any other items you may need, such as a seat or back cushion and your

prescription glasses or sunglasses, if you need to wear them when you drive.

CHECKPOINT

- Why is it important to practice in the same vehicle you'll be using to take the test?



Practice the maneuvers you find especially difficult, such as backing or three-point turns.



WHAT WOULD YOU DO?

Your in-vehicle test is exactly one week away. What will you do between now and then to prepare for the test?

If you're not going to take your in-vehicle test in the school's driver training car, you will have to provide the vehicle. Be sure the one you use is as ready for the test as you are.

How Can You Get the Test Vehicle Ready?

The vehicle you drive for your test should be in top condition. The vehicle should be cleaned inside and out. All windows should be in good condition, and the door handles should work properly. In addition, the vehicle should be in good mechanical condition. The last thing you need on the day of your test is a mechanical or other problem.

Choose Your Car Wisely

If you have a choice of which vehicle you'll use for your test, choose

one that is in good all-around condition and that you feel comfortable driving.

Remember that you may have to show proof that the vehicle is registered and insured and that it has been properly inspected and has passed an emissions test. Do *not* bring a vehicle to the test that:

- ◆ you have seldom or never driven
- ◆ frequently stalls
- ◆ restricts your ability to see
- ◆ doesn't have safety belts
- ◆ has muffler problems
- ◆ you have difficulty getting into or out of

Check Out the Vehicle in Advance

Before the day of the test, make basic predriving checks on:

- ◆ defroster/defogger
- ◆ brakes

Be sure that your mirrors—inside and outside—are clean and that you adjust them properly.



Tips for New Drivers

Choosing a Vehicle for the Test

Suppose you have practiced in and are equally comfortable driving two cars, both of which are in good mechanical condition. Which car should you choose to use for your in-vehicle test? Here are some tips that may make your decision easier.

- Choose a car with an automatic transmission over one with a manual transmission. Nervousness can make you have trouble coordinating the clutch, the gearshift, and the accelerator.
- Choose a smaller car over a larger car. Smaller cars are generally easier to maneuver than larger cars.
- Choose a conservative, family-type car over a sports car or "souped-up" vehicle. Make a good first impression on the examiner.

- ◆ clutch and gas pedals
- ◆ lights
- ◆ horn
- ◆ fluid levels
- ◆ tire pressure
- ◆ windshield wipers and washer fluid

By checking out the test vehicle in advance, you can make sure that whatever is not in good working order will be fixed in time for the test. Be sure you know where all the controls are and how to operate them.

On the day of the test:

- ◆ clean the interior of the vehicle
- ◆ clean the windows
- ◆ adjust and clean the mirrors
- ◆ clean the lights
- ◆ verify that you have enough fuel

Remove any obstructions from inside the car, such as packages or hanging ornaments. Be sure your vehicle's safety belts are working properly.

To review other suggestions for ad-

vance preparation of your vehicle, see Chapter 6 and Chapter 16.

CHECKPOINT

3. Why is it important to check out your vehicle in advance of taking the test?



WHAT WOULD YOU DO?

Which car would you choose for your test next week? Explain your choice.

SAFETY TIPS

If your car has automatic shoulder belts, be sure you also fasten your lap belt for maximum protection.

Concentrate on your driving and the examiner's instructions during the in-vehicle test.

The big day has finally arrived: You're taking the in-vehicle test for your driver's license. You've practiced driving for many hours, but you feel nervous just the same. You want to pass the test on your first try.

What Should You Do Once You're Sitting Behind the Wheel?

The examiner who rides with you on your test will evaluate your skill at handling the car as well as your ability to drive safely and responsibly. In most states you will fail the test auto-

matically if you violate a traffic law or commit a dangerous act.

Make All Necessary Adjustments First

Before you start the engine, recheck the adjustments to see if any are needed.

- ◆ Make sure your seat is adjusted so that you have a clear view of the road and can reach the accelerator and brake pedals comfortably. If you use a seat or back cushion, put it in place.
 - ◆ Make sure your head restraint is correctly adjusted.
 - ◆ Make sure the rearview and side-view mirrors are positioned for maximum visibility.
 - ◆ Make certain that no objects inside the car are blocking your view.
 - ◆ Fasten your safety belt.
- Follow these procedures after you've started the engine.
- ◆ If necessary, turn on window defrosters and windshield wipers.
 - ◆ Turn on the low-beam headlights.
 - ◆ If the radio is on, turn it off.
 - ◆ Check your mirrors and blind spots before starting to drive.

Concentrate on What You're Doing

Follow these guidelines for keeping your mind on your driving during the in-vehicle test.

Listen carefully to any instructions. Follow the examiner's instructions exactly. If you don't understand



something the examiner says, ask for clarification.

Don't chat with the examiner

During the test, the examiner may hardly speak to you. Don't let it bother you if your examiner is the silent type. This may just be his or her personality. On the other hand, if your examiner is talkative and asks you a lot of questions, don't let that distract you from concentrating on driving.

Don't worry about what the examiner is writing During the test, expect the examiner to be writing and making notes on a form. Don't assume the examiner is being critical. Many categories have to be tested and noted. The examiner may be writing favorable comments too.

Don't let a mistake throw you If you make a mistake, maintain your concentration. Don't let a minor error rattle you so much that you make a worse mistake. If you're going through a complicated maneuver, move the car slowly, paying special attention to the gear you're in, the direction your wheels are turned, and the obstacles and traffic around you.

Stay Calm

Because this is an important test and you care about the results, you are going to be nervous. This is natural. But you can do some things to minimize your nervousness and help you concentrate on your driving.

Be well prepared If you have practiced a great deal, you should be prepared for the in-vehicle test. Thorough preparation is the best defense against making mistakes during the test.

Tips for New Drivers

Don't Rush Yourself

Once you get your license, you may have the urge to drive under more challenging circumstances than those you encountered in the in-vehicle test.

Regardless of how well you have done in your driver education course, you still have a lot to learn. It takes about five years for a new driver to gain the experience necessary to make quality judgments and decisions.

You can still drive responsibly, however. Resist the urge to drive beyond your capabilities. For the next several months, you should continue to practice driving with a licensed adult in the car. Practice under low-stress conditions until you have enough experience to tackle more difficult driving situations. Remember that when you're behind the wheel, you have assumed responsibility for yourself and for others. Take that responsibility seriously: Lives depend on it.

Admit that you're nervous It's helpful to admit that you're nervous in a situation that is making you tense. Even though you've prepared thoroughly, be aware of how you feel, and don't be afraid to tell your examiner. Don't be disappointed, however, if the examiner does not reassure you.

Have a positive attitude Remember that you are well prepared. Be confident that you are going to do your best.

Bring support The licensed driver who drives you to the test should be positive, optimistic, supportive, and calm. However, do not expect that the person will be allowed to accompany you while you are taking the in-vehicle test.

Breathe deeply Pay attention to the way you're breathing. When you



Don't rev the engine when you are stopped at a stop sign or red light or while you are stopped in traffic. Revving the engine wastes fuel and can annoy the examiner.

Advice From the Experts

Judy L. Alton, Sergeant, Texas
Department of Public Safety



Judy L. Alton

When you take the in-vehicle test, try to relax. Imagine that the examiner is your best friend. In Texas we grade on four categories: control, observation, position, and signaling. Controlling the vehicle is knowing how to handle it. Observation is making sure you look at all times—turn your head so the examiner can tell when you are looking. Position has to do with always maintaining the proper lane position. You should signal to make a turn or lane change and also with your horn if you need to give a warning.



WHAT WOULD YOU DO?

The examiner is ready for you to begin the in-vehicle test. What actions would you take before starting the engine?

are anxious, you tend to hold your breath. Deep breathing keeps the oxygen moving through your system and helps you stay calm.

Exercise Good Judgment

Show the examiner that you are a mature, responsible person. Always be courteous, both to the examiner and to the pedestrians and other drivers you may meet on the roadway. Above all, don't smoke while you are taking the in-vehicle test.

Demonstrate the skills you learned in your driver education course. Allow yourself plenty of time to pull out into traffic. Search the path ahead for any object or condition that could raise the level of risk. Follow other cars at a proper distance. Be alert for traffic control devices, and remember to signal your intentions.



CHECKPOINT

4. How can you concentrate and stay calm during the in-vehicle test?

CHAPTER 18 REVIEW

KEY POINTS

LESSON ONE

1. To prepare for the knowledge test, study your state driver's manual thoroughly. Read one section at a time and summarize it, study with a friend, and take any sample tests. Go for the test well rested, and take with you any documents you may need such as a birth certificate, Social Security card, learner's permit, vehicle registration, and proof of inspection and insurance coverage. When you take the test, stay calm, read each question carefully, and take time to think before selecting your answer.

LESSON TWO

2. To prepare for the in-vehicle test, practice driving as much as you can, preferably in the same vehicle that you will take your test in. Be alert and ready by getting a good night's sleep before the day of the test and not skipping meals. Bring what you need, including correct documentation, money or a check, and other necessary items such as sunglasses and cushions.

LESSON THREE

3. Be sure the vehicle you choose for the test is in top condition. Make predriving checks in advance before the day of the in-vehicle test by checking the brakes, fluid levels, pedals, lights, horn, tires, defoggers and windshield wipers. On the day of the test, make sure that your vehicle's windows, mirrors, lights, and interior are clean.

LESSON FOUR

4. When taking the in-vehicle test, first make all necessary adjustments before you start to drive: seat, head restraint, mirrors, and safety belt. Stay calm. Be prepared, admit you're nervous, be positive, bring support, and breathe deeply. Concentrate on what you are doing while you are driving. Listen carefully to the examiner, don't chat with him or her, and try not to worry.

PROJECTS

1. Interview two or three people who have acquired their driver's licenses within the past year. Find out the maneuvers they were required to make for the in-vehicle test. Ask what was easiest and hardest about the test. Discuss your findings with your class.

2. Write five questions that you think may be on your state's knowledge test. Exchange questions with a partner in your class. Try to answer your partner's questions. Check your answers and your partner's answers in your state driver's manual.

CHAPTER 18 REVIEW



BUILDING CRITICAL THINKING SKILLS

The High Cost of Fuel

Oil, the precious resource that is the source of the gasoline that powers our automobiles, has been the cause of a confusing mixture of benefits and drawbacks to the Inuits and Eskimos of Alaska. In the 1800s, these native peoples witnessed the exploration of their homeland by navigators searching for a quick Arctic sea route from the "New World" to the wealth of Asia. This sea route, the Northwest Passage, was finally traveled in 1903 by the Norwegian explorer Roald Amundsen.

Today, the Inuit are affected by another exploration—the search for oil in the waters of the Northwest Passage. With the discovery of oil at Prudhoe Bay on Alaska's north coast, human-made oil-drilling islands have been built amidst the 18,000 islands of the 4,000 mile long Northwest Passage.

The trans-Alaska pipeline carries the oil from Prudhoe Bay to ports in Southern Alaska where it is transferred to huge icebreaking tankers that carry the oil to refineries outside of Alaska.

For many of the Inuit, the frozen-over sea is like the land. Driving a ship through it is like driving a bulldozer across a farmer's field. The tankers also pose a danger to the environment such as that

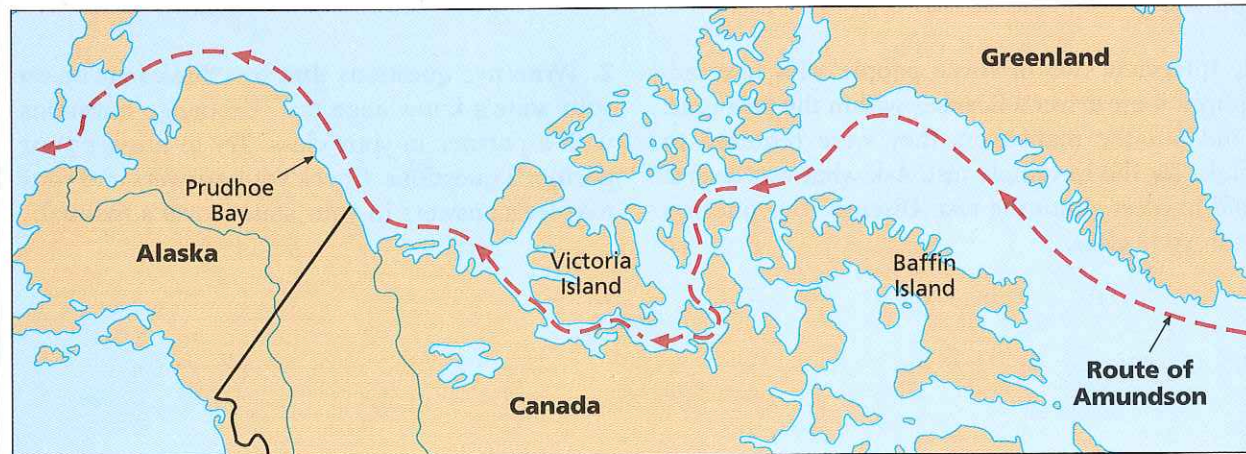
caused when the *Exxon Valdez* struck a reef and poured 10.9 million gallons of crude oil into Prince William Sound. The oil destroyed much of the wildlife that lived in these waters and was absorbed in the gravel beaches along the rocky shoreline.

The threat to the environment and to their way of life are somewhat balanced by the increased income and other material gains that oil has brought to the Native American of Alaska. In the Alaskan Native Claims Settlement Act of 1971, the U.S. government gave Alaskans with at least one Native-American grandparent a share in the oil-rich lands.

The Inuit are in the forefront of a movement that while recognizing the need for oil and its economic benefit, also recognizes the need to protect the environment against pollution. The threat of pollution has been an important topic in the five Inuit Circumpolar Conferences held since 1977 to discuss the future of Arctic peoples.

What Do You Think Now?

How can the need for oil and the economic advantages it brings be balanced by the need to protect and preserve the environment?



CHAPTER TEST

Write the letter of the answer that best completes each sentence.

- If you are not going to take your test in the school's driver education car,
 - the driving instructor will provide a car.
 - you will have to pay more for your license.
 - it will be up to you to provide the vehicle.
- To qualify for a driver's license, you have to show that you
 - have a savings account.
 - have driven at least 300 miles.
 - know and understand traffic laws and can safely operate a car.
- If possible, practice driving in
 - many different vehicles.
 - the same vehicle that you will take your test in.
 - a rental car.
- One way to stay calm during the in-vehicle test is to
 - rev the engine.
 - breathe deeply.
 - take the sample test.
- When taking your in-vehicle test, it is
 - okay to tell the examiner that you are nervous.
 - a good idea to chat with the examiner.
 - helpful to bring audio cassettes.
- Your goal in studying for the test is to
 - learn the rules of the road so that you can be a responsible driver.
 - pass your driving test.
 - answer all the questions correctly.
- You should check your car's fluid levels
 - before the day of your in-vehicle test.
 - in the presence of the examiner.
 - during the knowledge test.
- Three ways to prepare for your knowledge test are to
 - eat right, sleep well, and study.
 - study, bring documents, and exercise.
 - eat right, read, and check the brakes.
- If you violate a traffic law while taking your in-vehicle test, you
 - will automatically fail the test in most states.
 - can usually still pass the test.
 - will be banned from driving for one year.
- Your best proof of age is your
 - parent's sworn testimony.
 - birth certificate.
 - driver's permit.

Write the word or phrase that best completes each sentence.

- documents anxious clarification
emissions inspection responsible license
- Being a _____ driver means exhibiting sound judgment and decision-making skills.
 - You may need proof that the vehicle you bring for the test has passed a(n) _____.
 - If you don't understand something the examiner says, ask for _____.
 - When you are _____, you tend to hold your breath.
 - Take with you to the test all the _____ that you will need.

DRIVER'S LOG


In this chapter, you have learned how to prepare yourself and your vehicle for the state driving test. Do you think you will have more difficulty with the in-vehicle or the knowledge test? Write two

paragraphs in which you analyze the reasons for the difficulty, and explain what you will do to remedy the situation.

CUMULATIVE REVIEW

UNIT 4

This review tests your knowledge of the material in Chapters 1–18. Use the review to help you study for your state driving test. Choose the answer that best suits the question.

1. To stop heavy bleeding, use
 - a. an air bag.
 - b. shock.
 - c. adhesion.
 - d. direct pressure.
2. This sign  requires that you
 - a. watch for falling rocks.
 - b. come to a complete stop.
 - c. yield to traffic in the cross street.
 - d. slow down and proceed with caution.
3. At a flashing red traffic signal, you must
 - a. slow down.
 - b. yield to an emergency vehicle.
 - c. come to a full stop.
 - d. reverse direction.
4. A car's weight, body design, and engine type all contribute to
 - a. the driver's popularity.
 - b. oil consumption.
 - c. fuel efficiency.
 - d. night vision.
5. Plan your time on a trip by
 - a. making a budget.
 - b. making a schedule.
 - c. taking a scenic route.
 - d. wearing a watch.
6. Every time you drive your car, check
 - a. brake linings.
 - b. fluid levels.
 - c. shock absorbers.
 - d. front end alignment.
7. At a four-way stop, yield to
 - a. vehicles coming from the right.
 - b. vehicles behind you.
 - c. trucks coming from the left.
 - d. oncoming cars.
8. To prove your identity at the department of motor vehicles, you can take
 - a. a phone bill.
 - b. your parent's tax return.
 - c. a birth certificate.
 - d. a report card.
9. Coolant is stored in the
 - a. glove compartment.
 - b. power train.
 - c. radiator.
 - d. steering column.
10. Car financing can be obtained through
 - a. a bank.
 - b. your school.
 - c. an insurance company.
 - d. the federal government.
11. A joystick driving system can
 - a. help authorities to control traffic flow.
 - b. decrease risk.
 - c. help a person compensate for a physical disability.
 - d. help people learn to drive.
12. Tires should be rotated every
 - a. 50 miles.
 - b. 500 to 600 miles.
 - c. 5,000 to 6,000 miles.
 - d. two years.
13. You should pack a trailer so that
 - a. 25 percent of the load is in the front half.
 - b. 60 percent of the load is in the front half.
 - c. the load is evenly distributed.
 - d. your car's rear bumper touches the ground.
14. Narcotics
 - a. stimulate the central nervous system.
 - b. are safe and easy to use.
 - c. are often used by truck drivers.
 - d. can cause death.

CUMULATIVE REVIEW

15. One problem common to urban driving is
 - a. busy intersections.
 - b. large animals on the road.
 - c. high altitudes.
 - d. interchanges.
16. Driving through deep puddles can lead to
 - a. brake failure.
 - b. front end alignment.
 - c. engine lock.
 - d. clutch fade.
17. You are responsible for providing a vehicle for the
 - a. in-vehicle test.
 - b. knowledge test.
 - c. Smith System.
 - d. visual acuity test.
18. A factor in the cost of car insurance is
 - a. ethnic background.
 - b. your age.
 - c. your parents' driving records.
 - d. number of school years completed.
19. The night before your knowledge test,
 - a. stay awake and study.
 - b. get plenty of rest.
 - c. take a stimulant.
 - d. go out with your friends and relax.
20. Driving faster than the posted speed limit is
 - a. sometimes necessary.
 - b. legal on country roads.
 - c. always illegal.
 - d. legal but irresponsible.
21. You can increase visibility in dense fog by using
 - a. your dome light.
 - b. brake lights.
 - c. low-beam headlights.
 - d. high-beam headlights.
22. If you are stuck on the side of the road,
 - a. raise the hood of your car.
 - b. stand in the middle of the road.
 - c. hitchhike home.
 - d. stand on top of your car.
23. The catalytic converter
 - a. is a pollution-control device.
 - b. is an optional feature.
 - c. is attached to the battery.
 - d. converts miles to kilometers.
24. Do not buy a car if its death rate is
 - a. less than 1 per 10,000 vehicles.
 - b. more than 2 per 10,000 vehicles.
 - c. less than 2 per 10,000 vehicles.
 - d. more than 1 in 100,000.
25. To relax during the in-vehicle test,
 - a. chat with the examiner.
 - b. admit that you are nervous.
 - c. hold your breath.
 - d. wear loose clothing.
26. The odometer tells you
 - a. the speed of the car.
 - b. how far you have driven.
 - c. the engine temperature.
 - d. how much fuel is in the tank.
27. One step of the Smith System is
 - a. the SIPDE process.
 - b. risk.
 - c. angle parking.
 - d. keep your eyes moving.
28. To start a car, insert a key in the
 - a. steering wheel.
 - b. dashboard.
 - c. ignition switch.
 - d. carburetor.
29. Traction is poorest at about
 - a. 32 degrees Fahrenheit.
 - b. 112 degrees Fahrenheit.
 - c. 0 degrees Fahrenheit.
 - d. the equator.
30. The air filter is part of the
 - a. cooling system.
 - b. exhaust system.
 - c. protection system.
 - d. fuel system.

GLOSSARY

acceleration An increase of speed.

accelerator The gas pedal; it controls speed.

adhesion Sticking together; in automotive terms, traction.

administrative laws Laws that regulate driver licensing, vehicle registration, financial responsibility of drivers and vehicle owners, and minimum equipment and car standards for vehicles.

air bag A safety bag that fills with air automatically upon impact in a collision.

alternator A generator that produces the electricity needed to run a car and its electrical devices.

angle parking Parking so that cars are arranged at a 30- to 90-degree angle with a curb or other boundary.

antifreeze A substance with a low freezing point, usually added to the liquid in a vehicle's radiator to prevent freezing.

antilock brakes A braking system that is designed to keep a car's wheels from locking when the driver brakes abruptly.

antitheft device Any device used to protect a vehicle from being stolen or entered.

area of central vision That area of vision directly ahead of a person.

atmospheric conditions Weather and light conditions; these have an effect on visibility.

automatic transmission A system that transmits power to the drive wheels; gears are changed automatically in a car with this type of transmission.

automobile insurance Motor vehicle insurance; types include liability, no-fault, comprehensive, collision, medical payment, uninsured driver, and towing.

axle The shaft or rod connecting two opposite wheels on which the wheels revolve.

banked curve A curve that is sloped up from the inside edge.

basic speed rule A law that specifies that drivers must always drive at a speed that is reason-

able and proper for existing road, traffic, weather, and light conditions.

battery A unit that stores an electrical charge and furnishes current.

beltway A highway that passes around an urban area.

blind spot An area outside a vehicle that is not visible to the driver in the rear- or side-view mirrors.

blood-alcohol concentration (BAC) The percent of alcohol in the blood.

blowout A sudden loss of air pressure in a tire.

blowout skid A skid occurring as a result of a blowout.

blue book A guide to the average price paid to dealers for different makes and models of used cars.

brake fade A temporary brake failure resulting from brakes being overheated after being applied hard for too long.

brake pedal A pedal that enables a driver to slow or stop a vehicle.

brake system The system that includes disc and drum brakes and enables a vehicle to slow down and stop by means of hydraulic pressure.

braking distance The distance a car covers from the time the driver applies the brakes until the car stops.

braking skid A skid caused when the brakes are applied so hard that one or more wheels lock.

carbon monoxide A colorless, odorless, highly poisonous gas; a by-product of burning fuel.

carburetor The part of an engine that combines fuel with air so the mixture will burn properly.

catalytic converter An antipollution device, part of the exhaust system, that reduces harmful emissions.

center of gravity The point around which all the weight of an object is evenly distributed.

centrifugal force The force that tends to push a moving object out of a curve and into a straight path.

choke The valve that cuts off air from the carburetor; in many cars the choke functions automatically.

clutch A device that engages and disengages the engine and is connected to the drive shaft; the pedal by which the device is operated.

collision A crash; when one object hits another with sudden force.

color blindness The inability to distinguish between certain colors.

controlled-access highway See **limited-access highway**.

coolant A liquid added to a motor vehicle's radiator to reduce heat.

cooling system The system that keeps the engine cool by forcing air over metal cooling vanes that surround the cylinders; it includes the radiator, overflow tank, water pump, and thermostat.

cornering skid A skid on a turn or curve.

crankshaft The shaft that is turned as the pistons move up and down in the cylinders of the engine.

crosswalk A path marked off for use by pedestrians when crossing a roadway.

crowned road A road that is higher in the center than at either edge.

cruise control A car feature that allows a driver to maintain a desired speed without manually pressing the accelerator; intended for highway driving.

cylinders The parts of the engine that house the pistons; most cars have four, six, or eight cylinders.

decelerate To slow down.

deceleration lane An expressway lane used for slowing down before an exit.

defogger See **defroster**.

defroster A heating unit that clears moisture from the inside of the front and/or rear windows and ice from the outside surfaces.

depth perception Vision that gives objects their three-dimensional appearance and that enables a person to judge the relative distance between two objects.

differential An arrangement of gears that allows each drive wheel to turn at a different speed when going around a curve.

directional control The ability of a motor vehicle to hold to a straight line.

directional or turn signal A device that allows drivers to communicate their intentions to move right or left by means of blinking lights; or an arm or hand signal.

distributor The engine switch that sends electric current to each spark plug in proper order and at the proper time.

downshift To shift to a lower gear from a higher one.

Drive The most frequently used forward gear in a vehicle with an automatic transmission.

drive train See **power train**.

drive wheels The wheels that move a vehicle.

driving under the influence (DUI) See **driving while intoxicated**.

driving while intoxicated (DWI) An offense with which drivers may be charged if their blood-alcohol concentration is above a certain percent.

electrical system A system that carries electricity throughout the car and consists of the battery, the alternator or generator, the voltage regulator, and wires.

emergency brake The parking brake.

emergency flashers A signaling device that makes all four turn signals flash at once; used to warn other drivers that a vehicle has stopped or is moving slowly.

engine See **internal combustion engine**.

exhaust manifold A collecting system for unburned gases as they exit from the cylinders.

exhaust system The system that gets rid of waste gases and vapors from the engine and reduces the noise of the explosions within the engine cylinders.

expressway A divided highway with limited access that has more than one lane for traffic moving in the same direction; designed for high-speed travel.

fatigue Temporary physical or mental exhaustion; usually indicates the need for rest or sleep.

field of vision The area ahead and to the left and right that can be seen when looking straight ahead.

first aid Emergency treatment given to an injured or ill person before professional medical personnel arrive.

fixed speed limit A posted speed limit that cannot legally be exceeded.

flywheel The part of the engine that is turned by the starter and, as a result, turns the crankshaft.

following distance The time-and-space gap between vehicles traveling in the same lane of traffic.

force of impact The force with which a moving vehicle hits another object.

freeway An expressway; a highway that is not a toll road.

friction Resistance to motion between two objects when they touch.

friction point The point at which the clutch pedal and other parts of the power train begin to work together as the driver releases the clutch pedal.

fuel system A system that consists of the fuel tank, fuel pump, carburetor, fuel filter, and air filter. Some cars have a fuel-injection system instead of a carburetor.

fuses Safety devices, usually located beneath the dashboard, that protect a car's electrical circuits from overloading.

gas pedal See **accelerator**.

gear Toothed wheels that mesh with each other to transmit motion or change a vehicle's speed or direction.

gear selector lever The lever on a car with automatic transmission that allows the driver to select a gear.

gearshift The lever in a car with a manual transmission that permits gears to be changed.

gravity The invisible force that pulls all objects on the earth toward its center.

ground viewing Scanning beneath parked vehicles and other objects for signs of movement.

guide sign See **informational signs**.

hand brake The parking brake.

hand-over-hand steering A steering method in which the driver's hands cross when turning.

hazard flashers See **emergency flashers**.

head restraint A safety device attached to the back of the seat that is designed to prevent injury to the head and neck.

hemorrhage Heavy bleeding.

High Occupancy Vehicle (HOV) lane A lane reserved for use by vehicles having two or more occupants.

highway A main public roadway, especially one that runs between cities.

highway hypnosis A drowsy state that may occur during long hours of highway driving.

highway transportation system (HTS) A system made up of roadways, motor vehicles, and people.

hitch A device attached to the back of a car to haul a trailer.

hydraulic pressure The pressure created by a liquid being forced through an opening or tube.

hydroplane To skim on top of a film of water.

idle To operate the engine without engaging the gears.

ignition A system that provides the spark that causes the fuel-air mixture in the engine to burn.

implied consent law A law stating that any licensed driver charged with driving under the influence or while intoxicated cannot legally refuse to be tested for blood-alcohol concentration.

inertia The tendency of an object in motion to stay in motion and for an object at rest to stay at rest.

informational signs Signs, including route markers and destination, mileage, recreational area, and roadside service signs, used to guide and direct drivers.

inhibitions Personality elements that stop a person from behaving without regard for possible consequences.

interchange A point at which a driver can enter or exit an expressway or connect with a highway going in another direction.

internal combustion engine The part of a car that produces its power by exploding an air-fuel mixture within its cylinders.

international sign A road sign with symbols, used internationally.

intersection The place where two or more roadways cross.

in-vehicle test A performance test that evaluates a driver's ability to perform basic maneuvers; sometimes called a road test.

IPDE process See **SIPDE process**.

jaywalking The pedestrian practice of crossing a roadway without regard for traffic rules or signals.

jump-starting Attaching a car's dead battery by cables to a charged battery to start the car.

kinetic energy The energy of motion.

knowledge test A test on rules of the road and traffic signs, signals, and markings; sometimes called a written test.

lane-use lights Electronic signals mounted above reversible lanes that indicate which lanes can or cannot be used.

limited-access highway A highway that has fixed points of entry and exit.

lubricating system A system that reduces heat by coating the engine parts with oil, consisting of the oil pump, oil pan, and oil filter.

manual shift A hand-operated gearshift.

margin of space The amount of space that should be allowed in front of, behind, and to both sides of a vehicle, giving it room to maneuver in threatening situations.

momentum The product of weight and speed.

mouth-to-mouth resuscitation A method of restoring breathing to a victim.

muffler A device in the exhaust system that reduces engine noise.

multiple-lane highway A highway that has more than one lane for traffic moving in each direction.

Neutral A gear position in which the gears are not engaged and cannot transmit power.

night blindness The inability to see well at night.

odometer A device that measures distance traveled by a vehicle; its gauge.

Overdrive The highest forward gear in many newer vehicles with automatic transmissions; it allows the vehicle to travel more efficiently at higher speeds. In a car with a manual transmission, the fourth and fifth gears are sometimes identified as overdrive gears.

overdriving one's headlights Driving so fast at night that the driver is unable to stop within the range of the headlights.

parallel parking Parking parallel and close to the edge of the road.

parking brake The brake that holds the rear wheels; it is used to keep a parked car from moving.

parkway A broad highway that may be limited to noncommercial vehicles.

passive safety devices Devices, such as air bags or head restraints, that function without the user having to operate them.

pedestrian A person traveling on foot.

peer pressure The influence of friends and contemporaries on one's beliefs, values, and behavior.

perception distance The distance a vehicle covers during the time in which its driver identifies a need to stop.

peripheral vision The area of vision to the left and right of central vision.

perpendicular parking Parking so that a car forms a 90-degree angle with a curb or line.

physical disability A long-term or permanent physical condition that may limit or challenge a person's movement.

piston A cylinder enclosed in another cylinder within the engine; its up-and-down movement turns the crankshaft.

point system A system used to keep track of traffic violations by individual drivers.

power brakes Brakes that make it easier to slow or stop without an increase of foot pressure on the brake pedal.

power skid A skid caused when the gas pedal is pressed too hard and suddenly.

power train The parts of a motor vehicle that transmit power from the engine to the wheels; the engine, transmission, and clutch.

prosthetic device A device, such as an artificial limb, that enables a person to compensate for a physical disability.

push-pull steering A steering method in which the driver's hands do not cross even when changing lanes or turning.

radiator A cooling device that air-cools liquid pumped from the engine.

rate of acceleration The time it takes to speed up from a stop or from one speed to a higher one.

rate of deceleration The time it takes to slow down from one speed to a lower one or to a stop.

reaction distance The distance a car covers between the time a driver identifies a situation that requires braking and the moment that the brakes are applied.

recreational vehicle A large vehicle, such as a motor home, used mainly for pleasure.

regulatory sign A sign that controls the flow of traffic.

Reverse The gear used to back a vehicle.

reversible lanes Lanes on which the direction of traffic changes at certain times of day.

right of way The right of one roadway user to cross in front of another; right of way must be yielded to others in many situations.

risk The chance of injury to oneself or others and of damage to vehicles and property.

road test See **in-vehicle test**.

safety belt A restraining belt designed to protect the driver and riders; seat belt.

shared left-turn lane A lane that drivers moving in either direction use to make a left turn.

shift To change gears by means of a mechanism; the mechanism itself.

shock A physical disorder often accompanying

serious injury; characterized by faintness, weakness, feeling cold, and nausea.

shock absorbers Devices that cushion a car's frame against the impact of bumps in the road.

shoulder The strip of land along the edge of a roadway, sometimes referred to as a berm.

SIPDE process A five-step driving strategy (search, identify, predict, decide, execute) that enables drivers to process information in an organized way.

skid A driver's loss of control over the direction in which the car is moving.

Smith System A set of five principles that help drivers operate safely and defensively.

space margin See **margin of space**.

spark plug A device in an engine's cylinder that ignites the fuel-air mixture by means of an electric spark.

speedometer A device that measures the speed of a vehicle in miles per hour or kilometers per hour; its gauge.

steering wheel The wheel that enables a driver to turn a vehicle's front wheels.

suspension system The system, including shock absorbers, that protects the body of a vehicle from road shocks.

tailgate To drive behind another vehicle too closely.

three-point turn A turnabout made by turning left, backing to the right, then moving forward.

threshold braking A braking technique in which the driver firmly presses the brake pedal to a point just before the wheels lock.

total stopping distance The distance covered by a vehicle from the perception distance, to the moment that the vehicle comes to a stop.

tracking Steering; keeping a vehicle steadily and smoothly on a desired course.

traction The friction between a vehicle's tires and the road surface.

traffic control signals Electronic signals, such as colored lights, used to keep traffic moving in an orderly manner.

transmission The gears and related parts that carry power from the engine to the driving axle.

tread The outer surface of a tire, with its pattern of grooves and ridges.

turnabout Any turning maneuver by which a driver moves a vehicle to face in the opposite direction.

turn signal See **directional signal**.

two-point turn A turnabout made by first backing or heading into a driveway or alley and then heading or backing into the street.

U-turn A turnabout carried out by making a U-shaped left turn.

visibility The distance and area a driver can see and the ability of a vehicle or pedestrian to be seen.

visual acuity Clarity of eyesight.

warning lights and gauges Dashboard lights and gauges that provide information to the driver about the car; includes oil pressure, alternator, and fuel gauges, and brake, safety belt, and temperature warning lights.

warning signs Signs that alert drivers to potential dangers or conditions ahead; includes construction and maintenance signs.

warranty A written guarantee that a car dealer will repair a car, within a certain amount of time, at no charge to the customer.

written test See **knowledge test**.

yield To let another road user go first or have the right of way.

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