

STUDY GUIDE
FOR
AUTOMOTIVE TECHNICIAN II - WRITTEN TEST

Automotive Technician (AT) II incumbents perform in one of the following work settings:

(1) Maintain a fleet of vehicles; perform preventative maintenance; schedule and verify maintenance and repair; make mechanical and electrical repairs and adjustments; diagnose and inspect motor vehicles and accessories for needed repairs; secure and maintain both manual and computer records on maintenance and servicing of a fleet of vehicles; arrange for disposal of hazardous materials; interpret repair manuals and related materials; maintain tools and equipment; order and maintain inventory of automotive parts and supplies.

(2) Perform equipment installation including the assembly, installation, removal and repair of special enforcement and emergency equipment on motor vehicles, recondition used vehicles, and perform the more complex installation functions including fabrication of new equipment installation techniques.

Successful performance of many of the duties performed by this classification require incumbents to crawl underneath a vehicle/down under the dashboard/into the trunk; lift and carry tires up to 60 pounds in weight; and work in varying, and sometimes extreme, temperatures.

The purpose of this study guide is to help you prepare for the AT II written examination. The written examination is divided into five tests; each test measures knowledge and/or abilities required for success as an AT II. The number of questions in each segment of the test varies. This study guide contains examples of the types of questions that will appear on the examination. Correct answers are indicated with a double asterisk (**).

In addition to reviewing the following sample questions, you may find it helpful to review reference materials similar to the following:

- Chilton Service Manuals
- California Vehicle Code
- Motor's Manuals
- ASE Study Guides

TEST 1: Automotive equipment terminology and parts used in automotive maintenance and repair; and components of a vehicle.

1) Typical components of a charging system include all of the following except a/an

- (A) battery
- (B) regulator
- (C) alternator
- ** (D) distributor

TEST 2: Preventative maintenance and repair procedures; service requirements of motor vehicles; use of electric and air-powered tools, accessories, and small hand tools; tools, equipment, and methods used in testing and repairing automotive equipment and accessories; and safety equipment and procedures for hazardous materials.

2) Rotor thickness is best measured with a

- (A) gauge
- (B) steel ruler
- ** (C) micrometer
- (D) dial indicator

TEST 3: Vehicle component warranties, limitations, and requirements; diagnosing automotive equipment malfunctions and making or ordering repairs; analyzing situations and taking effective action; and projecting and evaluating cost effectiveness of maintenance and repair work.

3) The Ford Crown Victoria Police Interceptor comes with a three-year/100,000 mile power train warranty that provides coverage for the failure of all internal power train components with no deductible. All of the following components would be covered under the terms of this warranty except the

- (A) oil pump
- (B) pinion seal
- (C) torque converter
- ** (D) power steering pump

TEST 4: Reading automotive repair manuals, charts, invoices, and related materials.

Instructions: Using the information in the box below, answer the following question.

When a driver reports a brake pull or drift, the following procedure should be followed in chronological order to diagnose the cause of the malfunction. The first step is to check the tires/tire pressure. After the tires are checked, the brake pads should be visually inspected to determine whether or not they are wearing evenly. If the pads are wearing evenly, all brake components should be inspected. The next step would be to inspect all suspension components for proper condition/operation. The final step is to determine that the alignment is correct.

4) Using only the information in the box below, which of the following statements is false

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- (A) Brake components should be cleaned and inspected first.
 - (B) Suspension components should be checked before the alignment check.
 - (C) An alignment check should be completed after the tire pressure is checked.
 - (D) The brake pads should be visually inspected before the alignment is checked

TEST 5: Making arithmetical computations in job-related situations.

5) A truck travels 600 miles and uses 60 gallons of diesel fuel. How many miles per gallon did this truck achieve

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- (A) 5
 - (B) 6
 - (C) 10
 - (D) 15