Automotive Electrical and Engine Performance, 8th Edition Chapter 19
Name
SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.
1) How can a small electronic voltage regulator control the output of a typical 100-ampere alternator?
2) How is AC voltage inside the alternator changed to DC voltage at the output terminal?
3) How is the computer is used to control an alternator?
4) What are the component parts of a typical alternator?
5) What is the purpose of an OAP or OAD?

Answer Key

Testname: AEEP8_SHORT19

- 1) The regulator controls the current flow through the field (rotor). Zero field current equals no generator output and maximum field current (about 5 amperes) results in maximum generator output.

 Page Ref: 285
- 2) The rectifier diodes change AC from the stator windings to DC at the output terminal of the alternator. Page Ref: 278; 284
- 3) The computer controls the output of the generator by controlling the current flow through the field (rotor). Page Ref: 287
- 4) The components of a typical alternator include the drive-end housing, the slip-ring housing, rotor, rectifier diodes, and a stator.

Page Ref: 278-281

5) The purpose of an overrunning alternator pulley (OAP) or an overrunning alternator dampener (OAD) is to reduce noise and vibration in the accessory drive belt system.

Page Ref: 278-279