

Name \_\_\_\_\_

**MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.**

- 1) A duty cycle of 90% means that the alternator field current is off most of the time. 1) \_\_\_\_\_  
A) True  
B) False
  
- 2) Technician A says that a magnetic field is created in the alternator rotor. Technician B says that alternator output is increased if the speed of the alternator is decreased. Which technician is correct? 2) \_\_\_\_\_  
A) Technician A only  
B) Technician B only  
C) Both technicians  
D) Neither technician
  
- 3) On a vehicle using an electrical power management system (EPM), how is the current to the battery measured? 3) \_\_\_\_\_  
A) With a Hall effect sensor  
B) With an in-line ammeter  
C) By using a custom voltmeter  
D) By use of a duty-cycle sensor
  
- 4) Which of these is true about an alternator with an overrunning pulley? 4) \_\_\_\_\_  
A) Replacement pulley must be the overrunning type.  
B) It can use a conventional replacement pulley.  
C) Both A and B  
D) Neither A nor B
  
- 5) Technician A says that current is created in the stator windings of an alternator. Technician B says that the voltage regulator controls the current flow through the rotor. Which technician is correct? 5) \_\_\_\_\_  
A) Technician A only  
B) Technician B only  
C) Both technicians  
D) Neither technician
  
- 6) How is the AC voltage produced in the alternator changed to DC voltage? 6) \_\_\_\_\_  
A) Mechanical switches  
B) Alternating brushes  
C) Slip ring rotation  
D) Diodes inside the alternator
  
- 7) How much current flows through the alternator brushes? 7) \_\_\_\_\_  
A) All of the alternator output flows through the brushes  
B) 25 to 35 amperes, depending on the vehicle  
C) 10 to 15 amperes  
D) Less than 3 amperes

8) Alternators induce voltage by rotating which of these? 8) \_\_\_\_\_  
A) Magnetic field inside a fixed conductor  
B) Conductor around a fixed stator  
C) Stator inside a magnetic field  
D) Diodes inside a magnetic field

9) The output of an alternator can be increased by increasing the \_\_\_\_\_ of the alternator. 9) \_\_\_\_\_  
A) Speed of rotation  
B) Number of conductors in the stator  
C) Current in the rotor  
D) Any of these would increase the output

10) An alternator stator with three windings usually has how many diodes? 10) \_\_\_\_\_  
A) 2  
B) 4  
C) 6  
D) 8

## Answer Key

Testname: AEE6\_22B

1) B

Page Ref: 276

2) A

Page Ref: 277

3) A

Page Ref: 275

4) A

Page Ref: 268

5) C

Page Ref: 277

6) D

Page Ref: 266

7) D

Page Ref: 273

8) A

Page Ref: 271

9) D

Page Ref: 273

10) C

Page Ref: 271