

Name \_\_\_\_\_

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

- 1) Technician A says that superchargers have a delay in their response called boost lag. Technician B says that turbochargers have a delay in response called turbo lag. Which technician is correct? 1) \_\_\_\_\_  
A) Technician A only  
B) Technician B only  
C) Both technicians  
D) Neither technician
- 2) Technician A says that the turbocharger turbine and compressor wheels are on the same rotating shaft. Technician B says that its a good idea to change the oil in a turbocharged engine less frequently than a naturally aspirated engine. Which technician is correct? 2) \_\_\_\_\_  
A) Technician A only  
B) Technician B only  
C) Both technicians  
D) Neither technician
- 3) Which valve is used on a factory supercharger to limit boost? 3) \_\_\_\_\_  
A) A bypass valve  
B) A wastegate  
C) A blow off valve  
D) An air valve
- 4) A naturally aspirated engine depends on \_\_\_\_\_ to push the air-fuel mixture into the combustion chamber. 4) \_\_\_\_\_  
A) Atmospheric pressure  
B) Crankcase vacuum  
C) Altitude  
D) Radiator airflow
- 5) The following statements are all correct EXCEPT \_\_\_\_\_. 5) \_\_\_\_\_  
A) The turbocharger drains power from the engine  
B) Turbochargers help convert more engine heat energy into mechanical power  
C) Turbochargers resemble centrifugal superchargers  
D) Turbocharger bearings are usually lubricated with engine oil
- 6) All of the following statements are correct EXCEPT \_\_\_\_\_. 6) \_\_\_\_\_  
A) Higher compression engines are less likely to produce NO<sub>x</sub> emissions  
B) Higher compression engines are more efficient  
C) Higher compression engines usually require higher octane fuel  
D) Higher compression engines can produce more power

- 7) How many internal wheels does a typical turbocharger have? 7) \_\_\_\_\_  
A) Two  
B) One  
C) Three  
D) Four
- 8) Technician A says that superchargers are driven by the engine crankshaft. Technician B says that superchargers use a synthetic oil inside the unit. Which technician is correct? 8) \_\_\_\_\_  
A) Technician A only  
B) Technician B only  
C) Both technicians  
D) Neither technician
- 9) Which type of relief valve is used on a turbocharged engine is noisy? 9) \_\_\_\_\_  
A) A bypass valve  
B) A BOV  
C) A dump valve  
D) Both B and C
- 10) How are most turbochargers lubricated? 10) \_\_\_\_\_  
A) By engine oil under pressure through lines from the engine  
B) By an internal oil reservoir  
C) By greased bearings  
D) No lubrication is needed because the incoming air cools the turbocharger

## Answer Key

Testname: ENGINEPERF5\_12B

- 1) B  
Page Ref: 195
- 2) A  
Page Ref: 194
- 3) A  
Page Ref: 192
- 4) A  
Page Ref: 189
- 5) A  
Page Ref: 193
- 6) A  
Page Ref: 189
- 7) A  
Page Ref: 193
- 8) C  
Page Ref: 192
- 9) D  
Page Ref: 197
- 10) A  
Page Ref: 194