Name_____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

1) Describe the visual checks that should be performed on an engine if a mechanical malfunction is suspected.

2) Describe how to perform a compression test and how to determine what is wrong with an engine based on compression test result.

3) Describe the test procedure for determining if the exhaust system is restricted (clogged) using a vacuum gauge.

4) Describe the cylinder leakage test.

5) Describe how a vacuum gauge would indicate if the valves were sticking in their guides.

- The visual inspection items that should be performed as a part of a diagnosis include oil level and condition, coolant level and condition, checking for oil leaks, and listening carefully for abnormal engine noise. Page Ref: 257-259
- 2) A compression test is performed by connecting a pressure gauge into the spark plug hole and cranking the engine. A low first puff measurement indicates worn or broken piston rings. All cylinders should be within 20% of each other.

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- 3) A clogged (restricted) exhaust would be indicated on a vacuum gauge as a drop in engine vacuum if the engine speed is held at 2,000 to 2,500 RPM. Page Ref: 268
- A cylinder leakage test uses compressed air in the cylinders and faults are detected by listening for where the air is escaping from the engine.
 Page Ref: 264
- 5) A vacuum gauge can be used to detect engine faults and a sticking valve would be indicated by a vacuum gauge needle movement that drops 1 or 2 in. Hg from the normal reading. Page Ref: 266