

ASVAB Auto and Shop Information Practice Test (Sample)

Study Guide



Everything you need from our exam experts!

Copyright © 2025 by Examzify - A Kaluba Technologies Inc. product.

ALL RIGHTS RESERVED.

No part of this book may be reproduced or transferred in any form or by any means, graphic, electronic, or mechanical, including photocopying, recording, web distribution, taping, or by any information storage retrieval system, without the written permission of the author.

Notice: Examzify makes every reasonable effort to obtain from reliable sources accurate, complete, and timely information about this product.

SAMPLE

Questions

- 1. What is the purpose of the spark plug in an internal combustion engine?**
 - A. To lubricate the engine**
 - B. To ignite the gas/air mixture**
 - C. To measure fuel efficiency**
 - D. To regulate the engine temperature**
- 2. What type of nut can be tightened by hand due to its flanges on each side?**
 - A. Cap nut**
 - B. Hex nut**
 - C. Wing nut**
 - D. Barrel nut**
- 3. Which nail type is identified by having heads designed to be flush or slightly below the surface of wood?**
 - A. Common nails**
 - B. Brads and finishing nails**
 - C. Double-headed nails**
 - D. Spikes**
- 4. What is the role of the radiator in an engine's cooling system?**
 - A. To burn off excess fuel**
 - B. To mix air and fuel**
 - C. To dissipate heat from the coolant**
 - D. To inject fuel into the intake air**
- 5. What is the primary characteristic of a bench vise?**
 - A. It has rough jaws to prevent slipping**
 - B. It holds round objects**
 - C. It has wooden jaws**
 - D. It connects only to the items being worked with**

- 6. What feature distinguishes a wood-cutting chisel from a metal-cutting chisel?**
- A. Type of cutting edge**
 - B. Material of the handle**
 - C. Size of the blade**
 - D. Color of the finish**
- 7. Which tool is a heavy weight that indicates vertical trueness?**
- A. Penny System**
 - B. Plumb bob**
 - C. Square**
 - D. Sliding T-bevel**
- 8. Which type of lock washer is designed to hold a nut in either a vertical or horizontal application?**
- A. External tooth lock washer**
 - B. Internal tooth lock washer**
 - C. Spring lock washer**
 - D. Wave washer**
- 9. What acts as the nozzle for dispensing fuel directly into the engine's air stream?**
- A. Throttle**
 - B. Fuel Injector**
 - C. Carburetor**
 - D. Radiator**
- 10. What tool indicates whether a surface is true by using a liquid-filled tube?**
- A. Square**
 - B. Level**
 - C. Sliding T-bevel**
 - D. Plumb bob**

Answers

SAMPLE

1. B
2. C
3. B
4. C
5. A
6. A
7. B
8. C
9. B
10. B

SAMPLE

Explanations

SAMPLE

1. What is the purpose of the spark plug in an internal combustion engine?

- A. To lubricate the engine**
- B. To ignite the gas/air mixture**
- C. To measure fuel efficiency**
- D. To regulate the engine temperature**

The spark plug is a crucial component in an internal combustion engine, serving the primary purpose of igniting the gas/air mixture within the combustion chamber. When the engine is operating, the spark plug generates a spark at the precisely timed moment, creating the high temperature necessary to ignite the compressed mixture of fuel and air. This ignition initiates the combustion process, which ultimately drives the piston down and generates power for the vehicle. Understanding the function of the spark plug highlights its importance in ensuring efficient engine operation. Without a functioning spark plug, the combustion process would be compromised, leading to poor engine performance or failure to start. The other options, while important aspects of engine operation, do not accurately reflect the spark plug's role—lubrication pertains to oil systems, measuring fuel efficiency involves sensors and computers, and regulating engine temperature relates to the cooling system.

2. What type of nut can be tightened by hand due to its flanges on each side?

- A. Cap nut**
- B. Hex nut**
- C. Wing nut**
- D. Barrel nut**

A wing nut is designed with two large, protruding "wings" or flanges on either side, allowing it to be easily tightened or loosened by hand without the need for tools. This design facilitates quick adjustments and makes it ideal for applications where frequent fastening and unfastening are necessary. The ergonomic shape of the wings provides a firm grip, ensuring that users can adequately apply the required torque with their fingers. In contrast, other types of nuts, such as cap nuts or hex nuts, typically require a wrench or specialized tool to secure them tightly. Cap nuts have a closed top and offer some protection for the threaded end of a bolt but lack the hand-tightening feature. Hex nuts have a standard hexagonal shape, necessitating the use of a wrench for proper gripping. Barrel nuts are used primarily in specific applications like furniture assembly and do not have the same convenient hand-tightening capability as wing nuts.

3. Which nail type is identified by having heads designed to be flush or slightly below the surface of wood?

A. Common nails

B. Brads and finishing nails

C. Double-headed nails

D. Spikes

The correct answer is brads and finishing nails, which are specifically designed for applications where a smooth, flush finish is desired. These nails are typically much smaller in diameter than common nails and have heads that are either very small or shaped in a way that allows them to be driven below the surface of the material without leaving a noticeable mark. This characteristic makes them ideal for finishing work, such as attaching trim, molding, or cabinetry, where aesthetics are important and any visible fasteners would detract from the overall appearance of the project. The pointed end of brads and finishing nails allows for easy penetration into the wood, and when driven in, they can be left below the surface and filled for a seamless finish. In contrast, common nails have larger heads that typically leave a noticeable indentation, making them unsuitable for applications where a flush finish is required. Double-headed nails are designed for temporary construction and can remain exposed since they have a second head, and spikes are larger than common nails, used for heavy-duty applications such as rail ties or large construction projects. Thus, brads and finishing nails are uniquely suited for situations where a flush finish and minimal visibility are essential.

4. What is the role of the radiator in an engine's cooling system?

A. To burn off excess fuel

B. To mix air and fuel

C. To dissipate heat from the coolant

D. To inject fuel into the intake air

The radiator plays a crucial role in an engine's cooling system by dissipating heat from the coolant. As the engine operates, it generates a significant amount of heat. The coolant absorbs this heat and travels through the engine to the radiator, where it is cooled down. The radiator consists of a series of tubes and fins that allow air to flow over its surface, effectively transferring the heat from the coolant to the outside air. This process ensures that the engine remains within its optimal operating temperature range, preventing overheating and maintaining efficiency. The ability to manage the engine's temperature is vital for its performance and longevity.

5. What is the primary characteristic of a bench vise?

- A. It has rough jaws to prevent slipping**
- B. It holds round objects**
- C. It has wooden jaws**
- D. It connects only to the items being worked with**

The primary characteristic of a bench vise is that it has rough jaws to prevent slipping. This feature is crucial because the rough texture creates friction against the workpiece, allowing for a secure grip. When you are working on various materials, having a solid hold is necessary to perform tasks accurately and safely, whether you are cutting, drilling, or shaping the material. The design of the jaws also helps to accommodate different shapes and sizes of materials without damaging them, making the bench vise a versatile tool in a workshop. Although a bench vise can hold round objects and may incorporate wooden jaws or connect to specific items being worked on, these aspects are not defining characteristics like the roughness of the jaws. The rough jaws are essential for ensuring stability and minimizing any movement that could lead to errors or accidents during work.

6. What feature distinguishes a wood-cutting chisel from a metal-cutting chisel?

- A. Type of cutting edge**
- B. Material of the handle**
- C. Size of the blade**
- D. Color of the finish**

The distinguishing feature between a wood-cutting chisel and a metal-cutting chisel is indeed the type of cutting edge. Wood-cutting chisels typically have a beveled cutting edge that is designed to create clean cuts in wood fibers without splitting them. The edge is often ground to a specific angle that is optimal for cutting through wood, allowing for greater control and precision. On the other hand, metal-cutting chisels are crafted with a different edge geometry that helps them effectively shear metal. This can include sharper angles or additional hardness to withstand the increased resistance encountered when cutting through metal materials. The design is tailored specifically for the properties of the material being worked on, ensuring that the chisel performs optimally for its intended use. The other options do not inherently distinguish these types of chisels. The material of the handle can vary for both wood and metal chisels and does not serve as a defining characteristic. Similarly, the size of the blade and the color of the finish can differ among chisels within each category, but these features do not provide a clear distinction between wood-cutting and metal-cutting chisels.

7. Which tool is a heavy weight that indicates vertical trueness?

- A. Penny System**
- B. Plumb bob**
- C. Square**
- D. Sliding T-bevel**

A plumb bob is a tool designed to indicate vertical trueness, which means it helps determine whether a surface is perfectly vertical or not. The plumb bob consists of a pointed weight suspended from a string; when the weight hangs freely, it will align itself with the force of gravity, providing a true vertical reference. This is essential in construction and carpentry to ensure that walls, posts, and other structures are correctly aligned vertically. The other tools listed serve different purposes: the penny system is related to leveling and measuring, a square is used for checking right angles, and a sliding T-bevel is designed to duplicate angles. While all these tools are valuable in their respective applications, they do not serve the function of indicating vertical alignment like a plumb bob does.

8. Which type of lock washer is designed to hold a nut in either a vertical or horizontal application?

- A. External tooth lock washer**
- B. Internal tooth lock washer**
- C. Spring lock washer**
- D. Wave washer**

The spring lock washer is specifically engineered to prevent nuts from loosening due to vibration and movement. Its unique design, which includes a set of coils, exerts pressure against the fastener and the surface of the material it is securing. This feature enables it to provide a consistent grip, effectively locking the nut in place in both vertical and horizontal applications. In contrast, other types of lock washers serve different functions. The external tooth lock washer has teeth around its edge designed to bite into the surface of the material, providing grip, but may not be as effective in all orientations. The internal tooth lock washer operates on similar principles but uses teeth on the inner diameter, which might limit its effectiveness in certain settings. The wave washer is primarily used to provide a spring effect in a joint rather than specifically locking fasteners in place. Thus, the spring lock washer stands out for its versatility in securing nuts in various orientations.

9. What acts as the nozzle for dispensing fuel directly into the engine's air stream?

A. Throttle

B. Fuel Injector

C. Carburetor

D. Radiator

The fuel injector is the component that acts as the nozzle for dispensing fuel directly into the engine's air stream. Its primary function is to precisely atomize and deliver fuel into the intake manifold or directly into the combustion chamber at the correct time and in the right amount, ensuring optimal combustion and engine performance. Fuel injectors operate based on a combination of engine signals and pressure, enabling them to inject fuel with precision. This process helps increase efficiency and reduce emissions compared to older systems, such as carburetors, which mix air and fuel before it enters the engine. The fuel injector system is crucial in modern automotive engines, as it enhances power, responsiveness, and fuel economy. The other options do not fulfill the role of dispensing fuel directly into the air stream. The throttle controls air flow into the engine, the carburetor, while an older technology, mixes air and fuel before they enter the combustion chamber rather than injecting it, and the radiator is part of the cooling system, unrelated to fuel delivery. These distinctions highlight the specialized function of the fuel injector in modern fuel delivery systems.

10. What tool indicates whether a surface is true by using a liquid-filled tube?

A. Square

B. Level

C. Sliding T-bevel

D. Plumb bob

The tool that indicates whether a surface is true by using a liquid-filled tube is known as a level. A level typically contains a sealed glass or plastic tube filled with a liquid, usually colored for visibility, with a small air bubble inside. When the level is placed on a surface, the bubble will rise to the highest point, allowing the user to determine if that surface is perfectly horizontal (level) or perfectly vertical (plumb). This functionality is essential in many construction, carpentry, and other trades to ensure objects are aligned accurately. The use of liquid in the tube helps in providing a precise reading, as the bubble will always rise to the highest point due to gravity, effectively allowing users to gauge whether they have achieved the desired alignment accurately.