ASVAB Practice Test (Sample)

Study Guide

Everything you need from our exam experts!

Questions

1. A device that converts sound waves to electric current is a?

A. Condenser

B. Microphone

C. Transistor

D. Tuner

2. A printing press will print 6,000 copies in 20 minutes. A second press can print 15,000 copies in 60 minutes. How many more copies per minute will the faster press print than the slower press?

A. 1,000

B. 2,000

C. 3,000

D. 3,500

3. What is the significance of testing speed in the ASVAB?

A. Speed is irrelevant; only accuracy matters

B. Testing speed helps gauge readiness for military service

C. It determines the overall score directly

D. Testing speed is more important than question comprehension

4. If a car's catalytic converter fails, what is likely to increase in the car's emissions?

A. Carbon dioxide

B. Methane

C. Nitrogen

D. Oxygen

5. If (4/3) * (3/4) = 5k, then k = ?

A. 3/4

B. 1/5

C. 5

D. 1

6. Simplify the expression 5x times (3x^2 - 5).

A. 15x^3 - 25x

B. 15x^3 - 5

C. -25x^3 + 5

D. 15x^3 + 5x

7. When sodium atoms form sodium ions they...

A. gain electrons

B. lose electrons

C. split into two atoms

D. become positively charged

8. Nails are usually driven into wood with?

A. hammers

B. pliers

C. saw

D. screwdriver

9. When measuring resistance with an ohmmeter, what should you ensure?

A. Connect the power

B. Disconnect the power

C. Keep the circuit open

D. Use a high range setting

10. If the population of a certain city increased by 25% in 2 years, the new population was what percent of the old?

A. 100%

B. 110%

C. 125%

D. 150%

Answers

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

Explanations

1. A device that converts sound waves to electric current is a?

A. Condenser

B. Microphone

C. Transistor

D. Tuner

A device that converts sound waves to electric current is known as a microphone. This technology works by capturing sound waves created by vibrations in the air and converting them into an electrical signal. This conversion process typically involves diaphragm movement within the microphone, which triggers changes in capacitance or impedance, resulting in an electric current that mirrors the original sound wave's frequency and amplitude. Microphones serve a crucial role in various applications, including broadcasting, music recording, and public speaking, allowing for sound to be captured and transmitted electronically. They are categorized into different types, such as dynamic and condenser microphones, each using slightly different mechanisms to achieve the sound-to-electric conversion. Other devices mentioned in the options have entirely different functions. For instance, a condenser is a type of microphone, not a standalone device that converts sound. A transistor is an electronic component used to amplify or switch electronic signals, and a tuner is a device for receiving radio frequencies. These distinctions clarify why the microphone is the correct answer, given its specific role in translating sound waves into electric currents.

2. A printing press will print 6,000 copies in 20 minutes. A second press can print 15,000 copies in 60 minutes. How many more copies per minute will the faster press print than the slower press?

A. 1,000

B. 2,000

C. 3,000

D. 3,500

To find out how many more copies per minute the faster press prints compared to the slower press, we first need to calculate the printing speeds of both presses. The first press prints 6,000 copies in 20 minutes. To determine its speed in copies per minute, we divide the total number of copies by the number of minutes: 6,000 copies / 20 minutes = 300 copies per minute. The second press prints 15,000 copies in 60 minutes. We perform a similar calculation: 15,000 copies / 60 minutes = 250 copies per minute. Now, we can determine the difference in their speeds. The first press prints 300 copies per minute and the second press prints 250 copies per minute. The difference between their printing speeds is: 300 copies per minute - 250 copies per minute = 50 copies per minute. Given this calculation, it turns out the first press prints 50 more copies per minute than the second press. Thus, it's clear that the answer to how many more copies per minute the faster press prints than the slower press does not align with your selected answer. The correct answer reflects that the first press, operating at a faster speed, only has a margin of 50 copies per

3. What is the significance of testing speed in the ASVAB?

A. Speed is irrelevant; only accuracy matters

B. Testing speed helps gauge readiness for military service

C. It determines the overall score directly

D. Testing speed is more important than question comprehension

Testing speed holds significant importance in the ASVAB because it provides insight into a candidate's readiness for military service. In the military, tasks are often time-sensitive, requiring individuals to work efficiently under pressure. Therefore, being able to complete questions within a limited timeframe reflects not only a candidate's knowledge and skills but also their ability to perform in situations where timely decision-making is critical. The ASVAB evaluates various skills, including problem-solving and critical thinking, but the ability to manage time effectively during the test is indicative of how well a candidate might function in real-life military scenarios. Candidates who can work quickly and accurately are generally better prepared for the demands they will face in the military environment. Thus, assessing testing speed is a crucial factor in determining a candidate's potential for success in service.

4. If a car's catalytic converter fails, what is likely to increase in the car's emissions?

A. Carbon dioxide

B. Methane

C. Nitrogen

D. Oxygen

When a catalytic converter fails, it can no longer effectively convert harmful gases into less harmful ones. As a result, the amount of pollutants such as carbon dioxide, carbon monoxide, and nitrogen oxides will increase in the car's emissions. Methane is not typically produced by gasoline-powered vehicles, and oxygen is a necessary component in the combustion process, so they are unlikely to be affected by a failed catalytic converter.

5. If (4/3) * (3/4) = 5k, then k = ?

A. 3/4

B. 1/5

C. 5

D. 1

To determine the value of k in the equation $(4/3) * (3/4) = 5k$, we first simplify the left side of the equation. When we multiply $(4/3)$ and $(3/4)$, we can observe that the 3 in the numerator of $(4/3)$ and the 3 in the denominator of $(3/4)$ will cancel each other out. The same applies to the 4 in the numerator of $(3/4)$ and the 4 in the denominator of $(4/3)$. Hence, we are left with: $$(4/3) * (3/4) = (4*3)/(3*4) = 12/12 = 1$$ Now the equation simplifies to: $$1 = 5k$$ Next, to isolate k, we divide both sides of the equation by 5: $$k = 1/5$$ So, the value of k is 1

6. Simplify the expression 5x times (3x^2 - 5).

A. 15x^3 - 25x

B. 15x^3 - 5

C. -25x^3 + 5

D. 15x^3 + 5x

To simplify the expression 5x times (3x^2 - 5), you need to distribute 5x to each term inside the parentheses. Starting with the first term in the parentheses, multiply 5x by 3x^2: 5x * 3x^2 = 15x^{1+2} = 15x^3. Next, take the second term in the parentheses and multiply 5x by -5: 5x * (-5) = -25x. Now combine the results from both multiplications: 15x^3 - 25x. This yields the final simplified form, which is 15x^3 - 25x. Thus, the correct choice is the one that matches this result.

7. When sodium atoms form sodium ions they...

A. gain electrons

B. lose electrons

C. split into two atoms

D. become positively charged

When sodium atoms form sodium ions, they lose one electron to become stable. This loss of an electron results in the sodium atom becoming a positively charged ion. Therefore, the correct answer is option A - gain electrons. Option B is incorrect because when sodium atoms lose an electron, they do not gain electrons. Option C is incorrect because sodium atoms do not split into two atoms when forming ions. Option D is incorrect because while sodium ions do become positively charged, this is a result of losing an electron, not gaining one.

8. Nails are usually driven into wood with?

A. hammers

B. pliers

C. saw

D. screwdriver

When nails are used to secure wood, a hammer is usually the preferred tool for driving the nail into the wood. Pliers are used to grip and twist objects, not to drive nails. A saw is used to cut through wood, not to drive nails into it. And a screwdriver is used for turning screws, not for driving nails.

9. When measuring resistance with an ohmmeter, what should you ensure?

A. Connect the power

B. Disconnect the power

C. Keep the circuit open

D. Use a high range setting

When measuring resistance with an ohmmeter, you should always ensure that the power is disconnected. This is because adding power to the circuit can change the resistance and affect the accuracy of the measurement. Additionally, keeping the circuit open (choice C) will not allow for a complete measurement and using a high range setting (choice D) can cause inaccurate readings.

10. If the population of a certain city increased by 25% in 2 years, the new population was what percent of the old?

A. 100%

B. 110%

C. 125%

D. 150%

When calculating percentages, it is important to remember that the base number is the original value or population. In this case, the old population is our base number. The new population, which has increased by 25%, can be translated to 100% + 25% = 125% of the old population. However, as we are calculating the new population as a percentage of the old population, we need to subtract the original 100% to get the increase. Therefore, the answer is 25%. The other options are incorrect interpretations of the given information. Option B (110%) would be the answer if the population had increased by 10%. Option C (125%) is the new population, not the percentage increase. Option D (150%) is not a percentage increase and is too high of a value to represent a population increase of 25%.