Whittier Competition Academic Team Practice Test (Sample)

Study Guide



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Questions



- 1. What is the capital of Australia?
 - A. Sydney
 - B. Canberra
 - C. Melbourne
 - D. Brisbane
- 2. In chemistry, what does pH measure?
 - A. Concentration of salt
 - B. Temperature of a solution
 - C. Acidity or alkalinity
 - D. Dissolved oxygen levels
- 3. In literature, what is a "metaphor"?
 - A. A figure of speech comparing two unlike things
 - B. A rhetorical question
 - C. A type of rhyme scheme
 - D. A literary device used for exaggeration
- 4. What is the main organ responsible for the circulatory system in the human body?
 - A. Liver
 - B. Heart
 - C. Lungs
 - D. Kidneys
- 5. What was Robert Weaver's title when he became a presidential cabinet member?
 - A. Secretary of Labor
 - **B. Secretary of Housing and Urban Development**
 - C. Secretary of Education
 - D. Secretary of State

- 6. Which aviator brothers helped promote Paul Laurence Dunbar's poetry?
 - A. The Wright Brothers
 - **B.** The Langley Brothers
 - C. The Roosevelt Brothers
 - **D.** The Glenn Brothers
- 7. What is the distance around a circle called?
 - A. Area
 - **B.** Diameter
 - C. Circumference
 - D. Radius
- 8. Who was named Associate Press Secretary to John F. Kennedy in 1960?
 - A. Andrew Hatcher
 - **B. Colin Powell**
 - C. Shirley Chisholm
 - D. Barbara Jordan
- 9. What does ACSU stand for?
 - A. Advanced Cadet Service Uniform
 - **B. Army Cadet Service Uniform**
 - C. Air Cadet Support Unit
 - D. Army Combat Standard Uniform
- 10. Jesse Jackson, Jr. is a representative from which state associated with the Democratic Party?
 - A. Virginia
 - **B.** Illinois
 - C. Ohio
 - D. Michigan

Answers



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



Explanations



1. What is the capital of Australia?

- A. Sydney
- **B.** Canberra
- C. Melbourne
- D. Brisbane

The capital of Australia is Canberra. It was selected as a compromise between Sydney and Melbourne, the two most populous cities in Australia, after a long debate about where the capital should be located. Established as the capital in 1913, Canberra was purpose-built for this role, designed by the American architect Walter Burley Griffin. The city houses important government institutions, including the Parliament House and the High Court of Australia, which are central to the governance of the country. The other cities mentioned are significant in their own right but do not serve as the capital. Sydney is known for its iconic landmarks like the Sydney Opera House and Harbour Bridge, while Melbourne is renowned for its culture, arts, and coffee scene. Brisbane, as the capital of Queensland, is recognized for its warm climate and riverfront, but none of these cities hold the status of political capital that Canberra does.

2. In chemistry, what does pH measure?

- A. Concentration of salt
- B. Temperature of a solution
- C. Acidity or alkalinity
- D. Dissolved oxygen levels

pH is a scale used to quantify the acidity or alkalinity of a solution. It specifically measures the concentration of hydrogen ions (H⁺) present in that solution. A lower pH indicates higher acidity, while a higher pH indicates alkalinity. Pure water has a neutral pH of 7, with values below 7 being acidic and values above 7 being basic (or alkaline). Understanding pH is crucial in various fields such as chemistry, biology, environmental science, and agriculture, as it affects chemical reactions, biological processes, and the solubility and availability of nutrients. The other options pertain to different aspects of chemistry. For instance, concentration of salt relates to solutions' ionic strength and solubility, while temperature measures thermal conditions that can affect reaction rates. Dissolved oxygen levels are important in aquatic chemistry but do not relate to the acidity or alkalinity of a solution. Each of these factors plays a significant role in chemistry, but they do not directly measure pH.

3. In literature, what is a "metaphor"?

- A. A figure of speech comparing two unlike things
- B. A rhetorical question
- C. A type of rhyme scheme
- D. A literary device used for exaggeration

A metaphor is indeed a figure of speech that compares two unlike things without using "like" or "as." This comparison implies that one thing is another, enriching the meaning and providing deeper insight or understanding. For example, saying "Time is a thief" suggests that time can stealthily take away moments from our lives, much like a thief would steal possessions. This figurative language enhances the reader's experience by creating vivid imagery and provoking thought, making the abstract more tangible. The other options do not encapsulate the essence of a metaphor. A rhetorical question seeks to make a point rather than elicit an answer, a rhyme scheme pertains to the pattern of sounds at the end of lines in poetry, and exaggeration, known as hyperbole, serves a different purpose by emphasizing an idea rather than comparing dissimilar entities.

4. What is the main organ responsible for the circulatory system in the human body?

- A. Liver
- **B.** Heart
- C. Lungs
- D. Kidnevs

The heart is the main organ responsible for the circulatory system in the human body. Its primary function is to pump blood throughout the body, supplying oxygen and nutrients to tissues and removing carbon dioxide and other waste products. The heart's rhythmic contractions are essential for maintaining blood circulation, which is critical for sustaining life as it ensures that all body systems receive the necessary substances to function properly. Blood circulates through a network of vessels—arteries, veins, and capillaries—connecting the heart to every part of the body. The heart's chambers (the atria and ventricles) work together to facilitate this process, allowing blood to flow from the heart to the lungs for oxygenation and then back to the heart before being pumped out to the rest of the body. In contrast, while other organs like the liver, lungs, and kidneys play crucial roles in various bodily functions and support the circulatory system indirectly—such as filtering blood, facilitating gas exchange, and maintaining fluid balance—they do not serve as the primary organ for pumping blood. The heart is unique in its role as the center of the circulatory system.

5. What was Robert Weaver's title when he became a presidential cabinet member?

- A. Secretary of Labor
- **B. Secretary of Housing and Urban Development**
- C. Secretary of Education
- **D. Secretary of State**

Robert Weaver served as the first Secretary of Housing and Urban Development (HUD) when he became a member of President Lyndon B. Johnson's cabinet. Appointed in 1966, Weaver was pivotal in shaping urban policies and addressing housing issues, particularly in the context of the Great Society programs aimed at combating poverty and improving living conditions in urban areas. His role was significant as it marked the first time an African American was appointed to a cabinet position in the United States, highlighting a step towards greater diversity and representation in federal government. The other titles listed are associated with different historical figures or roles within the cabinet at various times, but none correspond to Weaver's significant position in housing reform and urban development.

6. Which aviator brothers helped promote Paul Laurence Dunbar's poetry?

- A. The Wright Brothers
- **B.** The Langley Brothers
- C. The Roosevelt Brothers
- D. The Glenn Brothers

The Wright Brothers, Orville and Wilbur Wright, are well known for their pioneering work in aviation, but they also played a significant role in promoting African American culture and talent, including the work of poet Paul Laurence Dunbar. Dunbar was one of the first influential African American poets, and his work gained prominence during the late 19th and early 20th centuries, a time when the Wright Brothers were actively developing their flying machines. The brothers valued Dunbar's contributions to literature and often supported him at events and functions. Promoting his poetry aligns with their broader ethos of innovation and breaking barriers, which parallels their achievements in aviation. This connection between the Wright Brothers and Dunbar enhances the cultural impact of their legacy, showing their involvement beyond just technical advancements in flight. Other pairs of brothers mentioned in the options do not have a recorded association with Dunbar or his work, thus reinforcing the notable historical link between the Wright Brothers and the promotion of his poetry.

7. What is the distance around a circle called?

- A. Area
- **B.** Diameter
- C. Circumference
- D. Radius

The distance around a circle is known as the circumference. This term specifically refers to the linear measurement that encompasses the circle's entire boundary. The formula for calculating the circumference of a circle is \(C = 2 \pi r \\) or \(C = \pi d \\), where \(r \\) represents the radius and \(d \\) represents the diameter. The circumference is a critical concept in understanding circular shapes and their properties. In contrast, the area refers to the space contained within the circle, not its perimeter. The diameter is a straight line segment that runs across the circle, passing through the center and connecting two points on the circumference; it measures the length across the widest part of the circle but does not provide the distance around it. The radius is half of the diameter and measures the distance from the center of the circle to any point on the circumference, also not indicating the total distance around the circle.

8. Who was named Associate Press Secretary to John F. Kennedy in 1960?

- A. Andrew Hatcher
- **B.** Colin Powell
- C. Shirley Chisholm
- D. Barbara Jordan

The selection of Andrew Hatcher as Associate Press Secretary to John F. Kennedy in 1960 is significant as he was one of the first African Americans to hold such a prominent position in the White House. Hatcher played a critical role in shaping communications for the Kennedy administration and contributed to its efforts to engage with diverse media and audiences at a time when racial issues were pivotal in American society. His appointment also reflects Kennedy's commitment to diversity and inclusiveness within his administration, which was crucial during the Civil Rights Movement era. This makes his selection not only a personal achievement but also a symbol of progress within the federal government regarding race relations. In contrast, while figures like Colin Powell, Shirley Chisholm, and Barbara Jordan are all notable for their contributions to American politics and civil rights, their roles did not include serving as Associate Press Secretary during the Kennedy administration.

9. What does ACSU stand for?

- A. Advanced Cadet Service Uniform
- **B.** Army Cadet Service Uniform
- C. Air Cadet Support Unit
- D. Army Combat Standard Uniform

The term "ACSU" stands for "Army Cadet Service Uniform." This designation reflects the specific uniform utilized by cadets in the Army Cadet Corps, which is an organization that focuses on the development of young individuals in military training and leadership skills. The Army Cadet Service Uniform is integral for fostering discipline and a sense of belonging among cadets, as it typically includes elements that symbolize their affiliation with the military while also meeting practical requirements for activities and drills. The other options, while they might refer to different uniforms or units within military or cadet organizations, do not correctly represent what ACSU stands for in the context of the Army Cadet Corps. Each alternative refers to various roles or types of uniforms but fails to capture the exact meaning associated with the "ACSU." Understanding the specific role and context of the Army Cadet Service Uniform is key to recognizing its importance within the cadet training and development framework.

10. Jesse Jackson, Jr. is a representative from which state associated with the Democratic Party?

- A. Virginia
- **B.** Illinois
- C. Ohio
- D. Michigan

Jesse Jackson, Jr. is associated with Illinois, where he served as a member of the U.S. House of Representatives. He was a prominent figure in the Democratic Party and was involved in various political and civic issues, particularly those related to civil rights and social justice. His tenure in Congress from 1995 to 2012 included representing Illinois' 2nd congressional district. This connection with Illinois highlights the state's significance in his political career and aligns with his family's longstanding involvement in civil rights activism, given that his father, Jesse Jackson, Sr., is a well-known civil rights leader.