

Scobol Solo 2022

Packet 1 (Round 1)

1. This leader benefited from a law that gave the most popular party 2/3 of the parliamentary seats, the Acerbo [uh-CHAIR-boh] Law. This leader gained power by organizing a march of about 30,000 people, leading to the resignation of Prime Minister Luigi Facta when the king did not approve of martial law. This man was eventually shot at the end of a losing war effort along with his mistress Clara Petacci [peh-TAHT-chee], and their bodies were then hung upside-down. Symbols at this man's tomb include depictions of bundles of wood. Name this fascist leader of Italy during World War II.

Answer: Benito (Amilcare Andrea) Mussolini

2. The type of heating named for this phenomenon works by creating eddy currents in a material rather than by exposing the material to heat. The equation quantifying this phenomenon shows why electrical potential difference is proportional to the number of turns in a transformer coil. The direction of this phenomenon is described by Lenz's law. The magnitude of this phenomenon is given by the equation "electromotive force is the opposite of the derivative of magnetic flux with respect to time". Faraday's law describes this phenomenon. Name this phenomenon in which a changing magnetic field causes a voltage.

Answer: (electromagnetic) induction [accept inductive heating]

3. This character wonders whether some guy in a truck takes the ducks from Central Park to a zoo when the lagoon freezes over. This character has that thought soon after he is read a note by Mr. Spencer in which this character wrote "That is all I know about the Egyptians." That discussion occurs soon after this character forgets fencing equipment on the subway. This character talks to Mr. Spencer after he finds out that he is being expelled from Pencey Preparatory Academy. Name this protagonist in J. D. Salinger's *The Catcher in the Rye*.

Answer: Holden (Morrisey) Caulfield [accept either underlined name]

4. This American thinker and a Danish physician are the namesakes of a theory of emotion that is opposed by Cannon-Bard theory. That theory is based both on this writer's article "What Is an Emotion?" and the writings of Carl Lange [rhymes with "gang"]. This person described stream of consciousness and argued for the existence of free will in the book *The Principles of Psychology*. This person wrote that religion "as a whole is mankind's most important function" in *The Varieties of Religious Experience*. Name this person whose gave lectures supporting ideas he developed with Charles Sanders Peirce ["purse"], which are collected in *Pragmatism: A New Name for Some Old Ways of Thinking*.

Answer: William James

5. This U.S. president appointed Thomas Walker Gilmer to be Secretary of the Navy, but Gilmer died ten days later when the USS *Princeton* exploded. This president allowed Americans to learn the Chinese language from Chinese people by signing the Treaty of Wanghia [wahng-shah]. A few years earlier, this president defined the northern border of the U.S. by signing the Webster–Ashburton Treaty. Daniel Webster was the only cabinet member who did *not* resign a few months after this person became president. This person became known as “His Accidency” when he became the first unelected president. Name this president who succeeded William Henry Harrison.

Answer: John Tyler

Check the score.

6. An index named for this pattern indicates that this pattern is happening when there is a significantly positive value for five consecutive overlapping three-month seasons. This pattern usually lasts 9 to 12 months, with the last one occurring in 2018–2019 and an unusually long and powerful one lasting from 2014 to 2016. This pattern can cause flooding in southern California and droughts in other places. This pattern is the warm phase of the Southern Oscillation that takes place in the Pacific Ocean. Identify this weather phenomenon that was named in South America by Spanish immigrants.

Answer: El Niño—Southern Oscillation [accept ENSO]

7. After a long swim, a character in this opera sings “Show me the red-head that can make a fool of me”, causing the rest of the cast to sing “Don’t listen to that Crown”. Earlier in this opera, Jake leads a song with the words “Woman may born you, love you and mourn you, but a woman is a sometime thing.” Early in this opera, Clara sings “Fish are jumping, and the cotton is high.” That song, which is later reprised [ree-preezd] by one of this opera’s two title characters, is “Summertime”. Name this opera set in Catfish Row that features an African-American cast and was composed by George Gershwin.

Answer: Porgy and Bess

8. This country’s new president said he would focus on drug rehab instead of enforcement after his predecessor oversaw operations that killed an average of three people per day in anti-drug operations. In 2022 elections in this country, Vice President Leni Robredo [LEH-nee roh-BRAY-doh] lost to a ticket consisting of a son of a former prime minister and the daughter of the outgoing prime minister, who was Rodrigo Duterte [doo-TER-tay]. Name this country now led by Bongbong Marcos that includes several islands between Taiwan and Indonesia and has its capital at Manila.

Answer: (Republic of) the Philippines [accept Republika ng Pilipinas]

9. One novel by this author has a murder–suicide note that says “Done because we are too many.” That murder-suicide is committed by a character nicknamed “Little Father Time” in this author’s novel in which the title character has a relationship with Mr. Phillotson’s former wife. In another novel by this author, the title character becomes friends with Marian, Izz, and Retty when they work together at Talbothays Dairy, though that friendship is strained when they all become interested in Angel Clare. Name this English author of *Jude the Obscure* and *Tess of the d’Urbervilles*.

Answer: Thomas Hardy

10. If a Hermitian [air-MISH-in] matrix contains this type of number, then it does not equal its transpose. The fundamental theorem of algebra refers to polynomials that have these numbers as coefficients, and the theorem guarantees that non-constant polynomials have these numbers as roots. De Moivre’s [duh mwahv’z] formula describes how to raise these numbers to powers when they are written in polar, or “cis” [siss], form. The quadratic formula results in these numbers when the discriminant is negative. Name these numbers that have real and imaginary components, meaning they can be written as $a + bi$ [“a plus b i”].

Answer: complex numbers [accept imaginary numbers before “coefficients”]

Check the score.

11. One performer on this instrument, Ferdinand Pognier [pawn-yay], commissioned Franz Schubert to compose *Introduction and Variations on “Trockne Blumen”* [TRAWK-nuh BLOO-men], which features a piano and this instrument. The title creature is represented in an opening solo by this instrument in Claude Debussy’s [deh-byoo-see’z] *Prelude to the Afternoon of a Faun*. In Western orchestras, this instrument is transverse, meaning that it is held horizontally when it is played. This instrument is similar to, but one octave lower than, the piccolo. Name this instrument, a “magic” example of which is given to Tamino in an opera by Wolfgang Amadeus Mozart.

Answer: flute

12. Towards the end of this person’s life, his opponents rallied during the Red Flag Incident and then plotted to assassinate him in the High Treason Incident. This leader enacted a constitution at the same time that he convened the national legislature, which was called the Imperial Diet. When this person gained power, he made a statement of principle called the Imperial Oath of Five Articles, which is also called the Charter Oath. Name this Emperor of Japan who was put in power when the Tokugawa Shogunate was overthrown in 1868, an act known as this person’s “restoration”.

Answer: Emperor Meiji [or Meiji-tenno or Mutsuhito]

13. One section of this poem ends “They jumped off the roof! to solitude! waving! carrying flowers! Down to the river! into the street!”. A character mentioned repeatedly in this poem is the answer to the question “What sphinx of cement and aluminum bashed open their skulls and ate up their brains and imagination?”. That creature in this poem is Moloch [MOH-“lock”]. This poem makes repeated reference to a psychiatric hospital with the phrase “I’m with you in Rockland.” This poem is dedicated to Carl Solomon and begins “I saw the best minds of my generation destroyed by madness.” Name this poem by Allen Ginsberg.

Answer: “Howl”

14. Researchers claimed to observe this process taking place just after a large cactus finch travelled 65 miles in 1981, and that example happened because of mating songs. The parapatric [pair-uh-PAT-rik] form of this process is explained using ecological niches, which is different than the allopatric [AL-oh-pat-rik] form of this process caused by fragmentation due to a new barrier. This process is a type of cladogenesis [KLA-duh-JEN-uh-sis] characterized by a splitting of lineages. Name this evolutionary process that leads to organisms that have a common ancestor but do not breed with each other.

Answer: speciation [prompt on evolution or cladogenesis or answers mentioning (the creation of new) species]

15. Between this U.S. state’s town of Ruidoso [rih-DOH-soh] and its Lincoln National Forest, the Mescalero Apache run a ski resort in the Sierra Blanca mountain range. The most populous city in this state is next to the Sandia [san-DEE-ah] Mountains. This state’s highest point, Wheeler Peak, is near an art colony that hosted Georgia O’Keeffe and Ansel Adams, Taos [TAH-ohss]. The Guadalupe [gwah-duh-LOO-pay] Mountains in this state are the location of Carlsbad Caverns National Park. Name this state whose most populous city is Albuquerque and whose capital is Santa Fe.

Answer: New Mexico

Check the score.

16. This person led a retreat from the Battle of Barren Hill. A few months earlier, this person led a retreat of George Washington’s army just after getting injured at the Battle of Brandywine. This person led troops that shadowed Lord Cornwallis leading up to the Siege of Yorktown. This person worked with Benjamin Franklin to secure troops overseen by Jean-Baptiste de Rochambeau [zhahn bap-teest duh roh-sham-boh]. This person became known as the Hero of the Two Worlds with his successes during the July Revolution and his drafting of the Declaration of the Rights of Man. Name this Frenchman who led troops during the American Revolutionary War.

Answer: (Marie-Joseph Paul Yves Roch Gilbert du Motier,) Marquis de Lafayette [accept either underlined name]

17. In one play by this writer, a character asks “You destroy me? Who are you?” and the other character replies “A cause.” That discussion between characters named “Just Cause” and “Unjust Cause” occurs in a play by this writer in which Socrates says “There is no Zeus.” Plato’s *Apology* blames that play by this author for leading to the trial and execution of Socrates. In another play by this writer, the Hoopoe [HOO-poo] agrees to build a city in the sky, and that city becomes known as Cloud-cuckoo-land. Name this ancient Greek writer of comedies, including *The Clouds* and *The Birds*.
Answer: Aristophanes [air-ih-STAH-fuh-nee-z]
18. A dancer in one of these places was painted by Cubism [“cube”-izm] theorist Jean [zhan] Metzinger. Mario Miranda painted murals in one of these places in Mumbai, called Mondegar [MAHN-deh-gar]. This type of place is mentioned in the original title of Edgar Degas’s [day-gah’z] *The Absinthe Drinker* because that painting is set in this type of place. The terrace of one of these places on the Place [plahss] du Forum in Arles [arl] was painted by Vincent van Gogh. Another place of this type was painted by van Gogh depicting a man standing next to a pool table at night. Name this type of small restaurant.
Answer: cafés [prompt on restaurants before “drinker”]
19. These creatures are generally equivalent to the Suvannamaccha [soo-vah-nuh-MACH-huh] from Thai folklore. Some people believed that Alexander the Great’s sister Thessalonike [thess-uh-lah-NEE-kee] was turned into one of these creatures but would become a Gorgon when angered. In some stories, men can stay married to these creatures as long as a possession, such as a comb, is kept hidden. These creatures were sometimes conflated with sirens, and they were supposedly seen before shipwrecks. In one famous story, one of these creatures gives up her beautiful voice in an effort to marry a man, but risks turning into sea foam. Name these women who have fish tails.
Answer: mermaids
20. One molecule with this geometry is the common precursor of elemental silicon called silane [SIH-“lane”]. The bond angles in this shape are between 109 and 110 degrees. The largest angles in a trigonal [TRIG-uh-null] pyramidal molecule are the size of the angles in this shape, and they would be the same if not for the repulsion of the trigonal pyramidal lone pair. This shape occurs when there is sp^3 [“S P three”] hybrid-ization. Methane is this shape since it has a central atom and four surrounding atoms with no lone pairs. Name this molecular shape that is equivalent to a triangle-based pyramid.
Answer: tetrahedral geometry [accept tetrahedron]

This is the end of regulation. Check the score. If it is tied, proceed to overtime tossups. If it is not tied, the game is over.

- ^{TB}21. The solid type of this material is classified based on whether its cells interconnect as open-cell or closed-cell. The liquid type of this material is also a type of colloid [KAH-loyd], and its structure is sometimes maintained by stabilizers such as proteins or surfactants. The solid types of this material are sometimes used as sponges. A type of this substance with carbon dioxide is used in some fire extinguishers. Foods such as meringues, whipped cream, and marshmallows are also examples of this type of material. Name this type of material that forms on the top of carbonated drinks.

Answer: foams

If the score is still tied, continue. If it is not tied, the game is over.

- ^{TB}22. A fast-growing city in this U.S. state is near the Nansemond [NANSS-mund] River, and some of its most populous cities are by the nearby Elizabeth River. Those cities are connected to this state's capital by the James River and are near a body of water called Hampton Roads. The town of Manassas is in the northern part of this state, and a little further north are the locations of the CIA headquarters, the Pentagon, and Arlington National Cemetery, all of which are just south of Washington, D.C. Name this state that contains the cities Newport News, Chesapeake, Norfolk [NOR-fuk], and its capital, Richmond.

Answer: Virginia

If the score is still tied, continue. If it is not tied, the game is over.

- ^{TB}23. Hinduism has this number of Vedas, and Judaism has this number of matriarchs. This is the number of Galilean moons. Human hearts have this many chambers. Give this number of sides of a square.

Answer: 4

There are no more overtime questions available. If the score is still tied, contact the control room for further instructions. If it is not tied, the game is over.