

Scobol Solo 2021

Packet 7 (Round 7)

1. The death of this woman was recorded by John Luttig at Fort Manuel Lisa, which is also called Fort Mandan. Due to an uncertain translation, it is unclear whether this person was the sister or the cousin of Cameahwait [kuh-MAY-uh-“wait”], whom she was surprised to see several years after being taken captive. This person was hired for her most important job when she was pregnant, and she gave birth to Jean Baptiste Charbonneau [zhahn bap-teest shar-boh-noh] a few months later. Name this Shoshone [shoh-SHOH-nee] person who was an interpreter for the Lewis and Clark expedition.

Answer: Sacagawea [“SACK”-uh-je-WEE-ah] [or Sakakawea]

2. Population II [2] of these objects are classified based on whether they have more in common with W Virginis [ver-JIN-is] or BL Herculis. The ability to use information from these objects to learn about the galaxies they are in is based on research done by Henrietta Swan Leavitt [LEV-it] when she was a Harvard computer observing several of these objects in the Magellanic [maj-uh-LAN-ik] cloud. Leavitt made a plot showing the relationship between magnitude and period for these objects. Name these stars that are not pulsars but that have regular changes in brightness.

Answer: Cepheid [SEFF-ee-id] variable stars [or Cepheid variables or Cepheids; prompt on variable stars]

3. This person said “Inflation is the one form of taxation that can be imposed without legislation.” This man is the chief popularizer of Juliet Rhys-Williams’ idea of a negative income tax, as he stated that welfare should come from the organization that collects taxes. That idea is supported in the book *Capitalism and Freedom*, which this economist wrote with his wife, Rose. This economist and Anna Schwartz wrote *A Monetary History of the United States, 1867–1960*. Name this leader of the Chicago school of economics.

Answer: Milton Friedman

4. In one story, Sherlock Holmes uses one of these objects to determine that the murderer of Willoughby Smith is a woman with a thick nose. The murderer turns out to be Professor Coram’s estranged wife Anna. In *Emma*, Mrs. Weston complains that it takes Frank Churchill a long time to repair one of these objects belonging to Mrs. Bates while Jane Fairfax plays piano. In another novel, when Jack is unable to steal burning branches, he steals one of these objects instead. Earlier in that novel, Jack breaks one side of this object when he attacks Piggy. Name this type of object belonging to Piggy that is used to start fires in *Lord of the Flies*.

Answer: eyeglasses [accept golden pince-nez or spectacles]

(The Sherlock Holmes story is “The Adventure of the Golden Pince-Nez”.)

5. On the left side of this painting, a tall pink fountain is surrounded by several types of animals. Two pink and blue structures in the top center of this painting have waterways coming from them. Many people in the circular pond in the middle of this painting have birds on their heads, and there are a lot of naked people riding animals around that pond. The left side of this painting shows god presenting Eve to Adam, while the right side depicts deformed creatures in Hell. Name this triptych [TRIP-tik] created by Hieronymus Bosch.

Answer: *The Garden of Earthly Delights (Triptych)* [or *El jardín de las delicias*]

Check the score.

6. Compounds containing this metallic element between a methyl group and bromine [BROH-meen] are used to form carbon-carbon bonds. Such compounds containing this metal are called Grignard [green-yard] reagents. This element's sulfate is hydrated to form Epsom salt. This element combines with calcium and carbonate to form the mineral dolomite. This element is surrounded by four nitrogen atoms to form a chlorin [KLOR-in] ring in chlorophyll. On the periodic table, this element is just below beryllium [buh-RILL-ee-um] and just above calcium. Name this element that burns with a bright white flame, has an atomic number of 12, and has the chemical symbol "Mg".

Answer: magnesium [accept Mg before the end]

7. This person was criticized in several open letters by Gilbert Foliot after this person got a job that Foliot had expected to get and which had previously belonged to Theobald of Bec. This person supported so-called "criminous clerks", which means that he wanted people connected to the Catholic Church to be immune from secular courts. This person was exiled for a time in Pontigny [pohn-teen-ye], but delegates working for Pope Alexander III made a deal that allowed this person to return home. This person then excommunicated supporters of the coronation of Henry the Young King. Name this Archbishop of Canterbury who was murdered after having several disputes with King Henry II.

Answer: Thomas à Becket

8. One character in this novel claimed to have made an invention related to telegraphs but was robbed by a great company and eventually became a safe-cracker. That man, Jack Duane, appears in this novel shortly after the protagonist attacks Phil Connor and is thrown in prison. That attack occurs because Connor rapes and threatens Ona, who is married to this novel's protagonist. Many of the characters in this novel are Chicagoans of Lithuanian descent. Name this novel about Jurgis Rudkus that was critical of meat packing factories and was written by Upton Sinclair.

Answer: *The Jungle*

9. A major attempt to reduce poverty in this country has been the Akhuwat [AH-koo-wat] Foundation's interest-free loans, which is being expanded through the Kamyab Jawan [KAM-yab juh-WAHN] program, but Shehbaz Sharif [sheh-BAHZ shay-REEF] has accused the leader of this country of increasing poverty. This country administers Gilgit-Baltistan, which was known as the Northern Areas, and AJK. This country was led by Shahid Khaqan Abbasi after Nawaz Sharif [shah-REEF] was removed during the Panama Papers case. This country is now led by former cricket star Imran Khan. Name this country that still has border skirmishes with India.

Answer: (Islamic Republic of) Pakistan [or Jamhuryat Islami Pakistan]

10. Pearson's moment coefficient of skewness is defined as the third standardized moment divided by the cube of this property. This property is multiplied by the square root of 2π ["2 pi"] in the denominator in the formula for the probability density function of the normal distribution. This property is the denominator in the simplest formula to calculate a z -score. The empirical rule states that 68% of measurements are less than this distance from the mean in a normal distribution. Name this measure of dispersion that equals the square root of variance.

Answer: standard deviation [prompt on sigma]

Check the score.

11. Robert Newman modified this artist's sculptures to improve the acoustics of the Aula Magna Auditorium of Central University in Caracas. Those sculptures by this artist are called *Floating Clouds*. The Whitney Museum of American Art now contains over 100 miniature pieces that this person made so that he could perform his circuses when he lived in Paris. Another work by this American artist hangs above a stairway in the Museum of Modern Art in New York City. Name this person who created *Lobster Trap and Fish Tail* and other mobiles.

Answer: Alexander ("Sandy") Calder

12. One poem by this writer is about "Two who are Mostly Good" and is the title work in a collection in which another poem describes members of the Ladies' Betterment League, who live in suburbs such as Lake Forest and Glencoe. The poem "The Lovers of the Poor" appears in this writer's collection *The Bean Eaters*. That collection also contains a poem set at the Golden Shovel, which is a pool hall. This writer ended that poem with the lines "We / jazz June. We / die soon." Name this writer who set many poems on the south side of Chicago, including "We Real Cool".

Answer: Gwendolyn (Elizabeth) Brooks

13. This national leader, in opposition to a constitution developed by the Great Sejm [“same”], backed the Targowica [tar-goh-VEET-zah] Confederation during the War in Defense of the Constitution. One of this leader’s first acts when coming to power was ending very short-lived support for Prussia during the Seven Years’ War. This national leader also stopped a massive rebellion led by Yemelyan Pugachev [POO-guh-cheff] sometimes called the Cossack Rebellion, which was one of many times this leader was helped by Grigory Potemkin. Name this person who led Russia from 1762 to 1796 after overthrowing Peter III, who was her husband.

Answer: Catherine the Great or Catherine II [accept Sophie of Anhalt-Zerbst or Yekaterina Velikaya; prompt on Catherine or Yekaterina]

14. This island has an eight-mile-long feature called the Great Crack. This island’s Hulihee Palace was damaged in 2006 by the Kiholo Bay earthquake that was centered just west of this island. Pololu Valley is part of Kohala Mountain near this island’s northwest coast. The most populous parts of this island are Kona on the west coast and Hilo [HEE-loh] on the east coast. This island consists of five volcanoes, including Kilauea [kill-uh-WAY-uh], Mauna Kea, and Mauna Loa. Name this island that is the south-eastern-most and largest in the chain of mid-Pacific islands that shares its name.

Answer: Island of Hawaii [or the Big Island of Hawaii]

15. A law named for this person uses 2 times the magnetic force constant from the Biot–Savart [bee-oh sah-var] law. That law describes the force between two current-carrying wires that is caused by magnetism. Another law named for this person states that the curl of a magnetic field is proportional to current density. That law was improved by James Clerk Maxwell through the use of displacement current, and it is one of Maxwell’s equations. Name this French scientist who is also the namesake of the SI base unit for current.

Answer: André-Marie Ampère [am-peer]

Check the score.

16. In this novel, because three priests had been able to summon rain, a king adopts their religion and enslaves adherents of another religion. The king’s lands are nicknamed “the Slow Cart Kingdom”. At the beginning of this novel, there is a magic stone on top of a mountain that develops a magic womb. Arthur Waley’s *Monkey* is an abridged translation of this book. In this novel, Pigsy, Sand, and Monkey travel with a Buddhist monk, and Monkey is also known as Sun Wukong. Name this 16th-century Chinese novel about a trip to Central Asia and India.

Answer: Journey to the West [or Xiyouji or Hsi-yu chi]

17. Viracocha [vee-rah-KOH-chah] fled this city when it was attacked by the Chanca. According to legend, the next leader of this city saved it by praying for the gods to turn rocks into warriors. That leader was Pachacuti [pah-cha-KOO-tee]. Later, Huáscar [WAH-skar] ruled this capital city during his rivalry with Atahualpa [ah-tah-WAHL-pah], who ruled Quito [“KEY-toe”]. This city was eventually disputed between Diego de Almagro and Francisco Pizarro just after it stopped being a capital city in the 1530s. This city is 50 miles southeast of Machu Picchu. Name this former capital of the Inca Empire that is located in what is now Peru.

Answer: Cusco [KOSS-koh] [or Qusqu or Qosqo]

18. In Behdet, this god was represented as a winged sun disk, and that representation spread supposedly based on a decree from Ra. In Edfu, this god was the consort of Hathor. The *wadjet* [WAD-jut] symbol that Egyptians used for protection represents this god’s eye. This god was born to Isis after she temporarily revived Osiris [oh-“SIGH”-riss]. This god used a disguised wooden boat to defeat Set after the two gods were engaged in several competitions. Name this Egyptian god who looked like a falcon and whose eyes were the Sun and the Moon.

Answer: Horus [accept Her or Heru or Hor or Har]

19. Sometimes a daughter cell does not get a full set of chromosomes because of a so-called “lag” named for this phase of mitosis [my-TOH-siss]. A chromosome bridge sometimes named for this phase can lead to fused chromatids [“CHROME”-uh-tidz] that cannot separate. During this phase, cohesin [koh-HEE-sin] is degraded so that there is no longer a connection between sister chromatids. When this phase begins, the contractile ring is formed, replacing the previous phase’s “plate”. Name this phase of mitosis between meta-phase and telo-phase.

Answer: ana-phase

20. This composer wrote brief descriptions of the four sections of his *Piano Concerto*, starting with “Life was so easy” and ending with “But life goes on.” The narrative follows this person’s move to the U.S., where he became tennis partners with George Gershwin. A much earlier piece by this composer is a setting for Albert Giraud’s [al-bair zhee-roh’z] poetry and uses an ensemble of flute, clarinet, violin, cello, piano, and narrator. That piece is *Pierrot lunaire* [pyair-oh loo-nair]. Name this composer who taught Anton Webern [VAY-burn] and Alban Berg [baireg], and who is credited with developing the twelve-tone technique.

Answer: Arnold (Franz Walter) Schönberg [shurn-bairk]

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. According to Kepler’s third law, the square of this quantity varies directly with the cube of the length of the semi-major axis of an orbit. To find the speed of a wave, divide wavelength by this quantity. For uniform circular motion, this quantity equals 2π times the radius divided by speed. This quantity varies directly with the square root of the length of a pendulum, and for a spring, it varies directly with the ratio of mass to spring constant. Name this reciprocal of frequency that measures how much time a repeated motion takes.

Answer: period [prompt on time]

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

^{TB}22. One of the original senators from this state was the first U.S. senator to serve five terms and shared his full name with his great-nephew, the painter Thomas Hart Benton. During the Civil War, a special state convention in this state voted 98–1 to remain in the Union, but Governor Claiborne Fox Jackson tried to secede anyway. In 1852, this state’s supreme court ruled that Dred Scott should remain a slave. A famous sign that said “The Buck Stops Here” on one side said “I’m From” this state on the other; that sign belonged to Harry Truman. In a 2018 Senate election in this state, Claire McCaskill lost to Josh Hawley. Name this state whose capital is Jefferson City.

Answer: Missouri

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

^{TB}23. This letter is the name of a water-themed Cirque du Soleil show presented at the Bellagio in Las Vegas. This English letter is used in notation for limiting behavior of a function or algorithm. In the Danish language, the letter Ø [uh] looks like this letter with a slash through it, and similar notation is used for empty sets in math. This letter is the symbol for oxygen. Name this letter that is between ‘N’ and ‘P’.

Answer: o

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.