

# New Trier Scobol Solo 2014

## Round 3



1. This man defeated Italian forces led by Carlo Caneva during the Battle of Tobruk in 1911. This leader later put down Sheikh Said's [sy-EED'z] rebellion in the Zaza region. His policies, which included ending monarchy, were called the Six Arrows, and this person is considered the Eternal Chief of the Republican People's Party. Since he was unsatisfied with the conditions of the Treaty of Sèvres [sev-ruh], this person's movement received better treatment in the Treaty of Lausanne after a war for independence. This person removed his country's caliphate and stopped recognizing Islam as the state's religion as part of a series of secular reforms. Name this first President of Turkey.

Answer: (Mustafa) Kemal (Pasha) Atatürk [accept either underlined name]

2. The most basic law named for this person was developed by Alexander Friedmann and Georges Lemaître [zhorzh luh-my-truh] before him. A theory claiming that the region of the universe near us has an unusual mass density is his namesake "bubble". A sequence named for this person, called a tuning-fork diagram, shows lenticular galaxies at its center, with arms for elliptical and spiral galaxies. This person discovered that many Cepheid [SEH-fee-ud] variable stars are outside the Milky Way, and the constant named for him gives the ratio of velocity to distance for distant objects. Name this astronomer who discovered that the universe is expanding, and who is the namesake of a space telescope.

Answer: Edwin Hubble

3. This nation contains a boiling lava field called Al-Safa. The Ghab Plain in this nation had been flooded by the Orontes River for years before being drained to make arable land. In 1973, this nation built the Tabqa Dam and created an artificial lake named for its president, the father of its current president. A short part of this country's northeastern border is formed by the Tigris River. Its Homs Gap lies between this nation's An-Nusayriyah Mountains and separates this nation from Lebanon. The Umayyad Mosque is in this nation's most populous city of Aleppo. Name this Middle Eastern country whose capital is Damascus.

Answer: Syria [or Syrian Arab Republic]

4. This opera contains the song “It rings out so joyful”, or “Das klinget so herrlich”, during which two characters escape while slaves are made joyful by the sound of bells. Two characters in this opera undergo tests of silence, water, and fire. Near the beginning of this opera, three ladies kill a serpent, but a birdcatcher takes credit for it. This opera takes place after the Circle of the Sun has been taken by the sorcerer Sarastro, and the heroes of this opera are Tamino and Pamina, the former of whom has been given the title object. Name this opera involving the Queen of the Night, written by Mozart.

Answer: *The Magic Flute* [or *Die Zauberflöte*]

5. This country was the home of Mohammed Marwa, whose followers started the Maitatsine riots after he died in 1980. Some of the recent unrest in this country started in the town of Maiduguri in its Borno state, the hometown of the recently deceased Mohammed Yusuf. A 2014 incident took place in this country’s town of Chibok. During that incident, Abubakar Shekau was criticized for being seen laughing and dancing in a video while mocking the hash tag Bring Back Our Girls. Name this country headed by Goodluck Jonathan where 276 female students were kidnapped in April 2014 by Boko Haram.

Answer: (Federal Republic of) Nigeria

6. The title person of this poem is figuratively addressed as “dear father” after the speaker describes the eager faces of the swaying mass turning and then having the speaker place an arm beneath the head of the title person. This poem opens with the speaker telling the title person that “the prize we sought is won”, and each stanza of this poem ends with the words “Fallen cold and dead”. This poem uses a ship as a metaphor, noting near the end that “The ship is anchor’d safe and sound, its voyage closed and done” in reference to the preservation of the United States. Identify this Walt Whitman poem, an elegy for President Abraham Lincoln that compares Lincoln to a ship’s commanding officer.

Answer: “O Captain! My Captain!”

7. Although these organisms do not contain the ampullae [AAM-pyoo-lay] of Lorenzini, members of this order do have electroreceptors in their snout. Members of this order have 10 sex chromosomes, and they contain spurs on their ankles that can contain venom. Like marsupials, these organisms lack a corpus callosum [kuh-LOH-sum], and this order gets its name due to the fact that its members urinate, defecate, and reproduce using one hole, the cloaca. This order consists entirely of echidnas [uh-KID-nuhz] and a “duck-billed” organism. Name this order of egg-laying mammals that includes the platypus.

Answer: monotremes [or Monotremata]

8. This quantity has a short-run marginal curve that crosses its average total and average variable curves at their minimum points. A negative externality is quantified as one of these values applied to an outside party. The advantage to the producer of economies of scale come about due to the decreased average value of this quantity. The value of an unselected alternative is called the “opportunity” type of this quantity. Overhead expenses are the “fixed” type of this quantity, and a common type of analysis contrasts this quantity with benefits. Identify this synonym of price that measures something given up in order to attain something else.

Answer: cost [do not accept “price”]

9. One way to parameterize this solid is to set  $x$  equal to  $z$  times the cosine of theta, and set  $y$  equal to  $z$  times the sine of theta. This solid is generated in spherical coordinates by setting the polar angle equal to a constant, and this solid is generated in cylindrical coordinates by the equation  $z = r$ . Rotations of slices of this solid form quadric surfaces such as ellipsoids and paraboloids; examples of such slices include hyperbolas and parabolas, which are called its “sections”. The volume of this shape is calculated by multiplying one-third pi times height times radius squared. Name this shape with an apex at the top and a circle at the bottom.

Answer: cone [accept nappe; prompt on conic]

10. A meeting just before this event was later called the “Monday Night Conspiracy”. A monument to this event built by Albert Weinert says “The day will come when our silence will be more powerful than the voice you are throttling today.” Those words were the last words of August Spies, who was one of four people hanged after this event for conspiracy to commit murder. Several other people were pardoned by John Peter Altgeld, the governor of Illinois. This event helped lead to the decline of the Knights of Labor and rise of the American Federation of Labor. Name this aftermath of a Chicago labor rally during which a pipe bomb was thrown at police officers.

Answer: Haymarket Square Riot [accept similar answers that include Haymarket]

11. Rearranging the Eyring [“airing”] equation yields an equation, that, when plotted, has an intercept that can be used to determine the change in this quantity for a transition state. Léon Brillouin [lay-aw breel-waan] coined a phrase for the amount of this quantity exported from a living system, which is prefixed with “neg”. The steps of the Carnot cycle keep either temperature or this quantity constant. Boltzmann’s theorem states that this quantity is proportional to the natural logarithm of the number of microstates of the system. The second law of thermodynamics states that in an isolated system this quantity cannot decrease. Name this quantity that measures “disorder”.

Answer: entropy

12. In one play by this writer, David McComber ends the relationship between his daughter Muriel and Richard Miller after Richard quotes from authors such as Omar Khayyám. Another of this writer's works, which ends with Smithers yelling at Lem after Lem's soldiers shoot the title character, is set on a Caribbean island. In another play, a character remembers his wife Bess, who died twenty years earlier, and another character justifies murdering his wife after explaining that he has overcome alcoholism. Name this playwright of *Ah, Wilderness!*, *The Emperor Jones*, and *The Iceman Cometh*, who wrote about the Tyrone family in *Long Day's Journey into Night*.

Answer: Eugene (Gladstone) O'Neill

13. A scroll and an open vial of ink lay on the ground in this painting, near a box on which the artist's initials are inscribed. A distraught figure dressed in blue rests his hands and face against a stone archway on the left of this painting, past which there are three figures ascending a staircase in the background. The central figure of this painting points his index finger up while a friend clutches at his knee; he reaches his other hand toward a goblet containing poison. Name this painting by Jacques-Louis David [zhahk loo-ee dah-veed] depicting the title Greek philosopher as he is about to consume hemlock.

Answer: *The Death of Socrates* [or *La Mort de Socrate*]

14. U.S. military involvement in this nation dates to a naval flotilla sent in 1909 when President José Zelaya [hoh-ZAY zeh-LYE-ah] threatened to execute two Americans. The 1912 U.S. occupation of this nation was triggered by a rebellion that captured ships funded through "Dollar Diplomacy". The 1925 U.S. occupation of this nation enforced the Bryan-Chamorro Treaty and dealt with rebel leader Augusto Sandino, largely there to prevent a second Central American canal from being built. After this nation's Anastasio Somoza was overthrown in 1979, the U.S. began illegally funding Contra rebels through arms sales to Iran. Name this nation currently led by Daniel Ortega from Managua.

Answer: (Republic of) Nicaragua [or (República de) Nicaragua]

15. One novel by this author begins with the narrator being repeatedly asked if he is sick by a stewardess as the plane lands in Hamburg. That narrator then remember's his friend's suicide after a billiards game. In another novel by this author, a woman tells a man that he has a spot of paint on the back of his neck so that she can kill him. That woman kills several men who abuse women. In that novel, Fuka-Eri talks to Azami and Tengo about the events in the novel *Air Chrysalis*. This author wrote about lost cats in *The Wind-Up Bird Chronicle* and *Kafka on the Shore*. Name this author of *Norwegian Wood* and *1Q84*.

Answer: Haruki Murakami

16. To celebrate the millennium of the arrival of Saints Methodius and Cyril in Slovakia, this composer wrote *Slavimo Slavno Slaveni!* One of this composer's six *Grandes Études de Paganini* includes *La campanella*. This composer wrote a series of études when he was fifteen that he later updated and dedicated to his teacher Carl Czerny ["CHAIR"-nee]. He eventually edited both of those sets to make them easier to play, and one of them is now the *Transcendental Études*. This composer also used several folk dances called lassans and friskas in a series of nineteen pieces. Name this composer of the *Hungarian Rhapsodies* who also wrote symphonic poems such as *Les préludes*.

Answer: Franz Liszt

17. This leader's chancellor, who strongly criticized the pope through the dialogue "Lactantius", was Alfonso de Valdés. This leader tried to reunite the Church by ordering Johannes Gropper to write a book that was given to Martin Bucer before the Diet of Regensburg. This ruler gained Naples and gave away Milan, which he later recaptured, in the Treaty of Noyon with Francis I of France. Following this leader's attack on Rome, he pushed Pope Paul III to convene the Council of Trent. This leader provided Ferdinand Magellan's ships. Name this 16<sup>th</sup>-century Habsburg monarch who abdicated to his son Philip I in Spain and to Ferdinand I in the Holy Roman Empire.

Answer: Charles V of the Holy Roman Empire [or Charles I of Spain; prompt on Charles I]

18. This character lowers her opinion of a man because he travels 16 miles each way to London for a haircut. She plans to reject a dinner invitation at the Coles' house but then accepts it. This character regrets one of her mistakes because it is such a blow for Harriet. This character is described as "handsome, clever, and rich", and she encouraged the relationship between Mr. Weston and her governess Miss Taylor. When this character loses interest in Frank Churchill, he marries Jane Fairfax, and this character then falls in love with George Knightley. Name this matchmaker who is the title character in a novel by Jane Austen.

Answer: Emma Woodhouse [accept either]

19. Several of these things are collected in the 12<sup>th</sup>-century text Blue Cliff Record, and they are used in the Soto and Rinzai sects. Several of these things involve people who deserve blows, and one of them can involve either three pounds of flax or the cypress tree in the courtyard. Often used in Japan, these things are supposed to provoke great doubt, which may be helpful during meditation by reducing analytical and egotistical thought. One of these things is a question asking what sound is made by one hand clapping. Name these questions and paradoxical statements used to encourage enlightenment under Zen Buddhism.

Answer: koans

20. The type of this device that is used to filter out higher frequencies is called a choke. The impedance caused by one of these objects varies directly with frequency and causes current to lag behind voltage in an AC circuit. The energy stored in one of these devices equals one half times its namesake quantity times current squared. That quantity used to measure these objects equals electromotive force divided by the derivative of current with respect to time, and the unit used to measure these objects is equal to a volt second per ampere. These devices often have iron cores. Name these objects whose strength is measured in henries, which can be made by coiling a wire.

Answer: inductors

- <sup>TB</sup>21. Several of this author's characters are—like this writer himself—graduates of Weequahic High School in New Jersey. One of those characters has an affair with speech therapist Sheila Salzman, who hid his daughter after his daughter bombed a post office. That character was the subject of a book within a book by the protagonist of this author's novels *The Prague Orgy* and *The Ghost Writer*, Nathan Zuckerman. One of his novels, which is narrated to the psychoanalyst Dr. Spielvogel, controversially described masturbation. Name this author of *American Pastoral* and *Portnoy's Complaint*.

Answer: Philip Roth

- <sup>TB</sup>22. Measurements of this quantity can involve a seismic mass on piezoelectric material or attached to a spring. Two times angular velocity cross velocity equals the value of this quantity caused by the Coriolis effect. Twice this quantity times displacement gives the change in the value of speed squared. The quantity speed squared divided by radius equals the centripetal type of this quantity. If there is no initial velocity, half of this quantity is multiplied by time squared to find displacement. Newton's second law says that this quantity times mass gives the net force on an object. Name this quantity equal to the change in velocity per unit time.

Answer: acceleration [accept longer answers and word forms]

- <sup>TB</sup>23. Identify the body part that is “invisible” in Adam Smith's *The Wealth of Nations*, was depicted in a pair that are drawing each other in a work by M. C. Escher, and contains four fingers and a thumb used for grasping.

Answer: hands