New Trier Scobol Solo 2014
Round 2

1. John Mitchell and Philip Wigle were the only people convicted in relation to this event, but they were later pardoned. This event was controlled by the radical Mingo Creek Association, which dominated a convention formed in an attempt to prevent it. Articles written under the pseudonym "Tully" advocated military force to end this rebellion. This event was precipitated by shots fired at John Neville to protest a policy supported by Alexander Hamilton, and it was ended by forces under Henry Lee after troops were led west by President George Washington. Name this insurrection in Western Pennsylvania against an excise tax on distilled spirits.

    Answer: <u>Whiskey</u> Rebellion [accept similar words in place of "Rebellion"]

2. The demonstration by Stern and Estermann that hydrogen and helium atoms undergo this phenomenon supported the work of Louis de Broglie. Karl Weissenberg and Max von Laue used this phenomenon to explain the creation of spot patterns on film. The light source and screen are both very far from where this phenomenon takes place in the Fraunhofer type of it. Spectrometers often use gratings that produce this phenomenon. This phenomenon and interference are used to distinguish waves from particles and are used to explain double-slit interference patterns. Name this spreading-out of waves after they pass through a narrow hole.

    Answer: <u>diffract</u>ion [accept word forms; do not accept "refraction"; prompt on <u>scatter</u>ing]

3. One character in this novel says that he will go uptown if he is given a half-holiday. The protagonist of this novel is asked if he is sullen and obstinate when he does not start to play, and he then plays the card game "beggar my neighbor". That card game is watched by a woman who lives next to a closed brewery at Satis House. Another character in this novel, who uses a wax-ended piece of cane named Tickler, is always referred to as Mrs. Joe and is married to a blacksmith named Joe Gargery. The kindness of this novel's protagonist changes the life of escaped convict Abel Magwitch. Name this Charles Dickens novel about the orphan Pip.

    Answer: *<u>Great Expectations</u>*

4. This composer worked with C. F. Ramuz on a small-scale production about a man who trades a magic violin to the devil. This composer followed up that work, *Histoire du soldat* [ees-twar doo sol-dah], with the ballet about a character who stages a stabbing to get his girlfriend to forgive him, *Pulcinella* [pool-chee-NAYL-lah]. This composer also wrote a ballet about a straw puppet that is brought to life. Another ballet, which led to complaints that this composer had been corrupted by Nijinsky and Diaghilev, portrayed a virgin dancing herself to death. Name this composer of *Petrushka*, *The Firebird*, and *The Rite of Spring*.

    Answer: Igor (Fyodorovich) <u>Stravinsky</u>

5. Explorer James Tennant theorized that this nation's town of Galle was the site of Tarshish, a port where King Solomon once docked. In the north of this nation is the Jaffna Peninsula and a formation of shoals called Adam's Bridge, which the Palk Strait and the Gulf of Mannar separate from the mainland. This island's longest river, the Mahaweli, eventually flows into the Bay of Bengal. The majority ethnic group in this nation is the Sinhalese, but its Northern Province has a Tamil majority. Its Kandy District produces a lot of tea. Name this nation with the cities Kotte and Colombo that is southeast of India and was called Ceylon by the British.

Answer: Sri Lanka [prompt on Ceylon]

6. The speaker of this poem hopes that he also wears "such deliberate disguises" like "rat's coat, crowskin, crossed staves". The subjects of this poem "grope together" and "avoid speech" at the "banks of the tumid river". This poem's speaker describes a "cactus land" where a "stone image" will be raised. The lines "Here we go around the prickly pear" open the fifth stanza of this poem. A few words from the Lord's Prayer are recited towards the end of this poem, which begins with an epigraph identifying "Mistah Kurtz" as "dead". This poem states that the world ends "not with a bang but a whimper." Name this T. S. Eliot poem claiming "We are the stuffed men."

Answer: "The Hollow Men"

7. Sex determination in this organism is controlled by the ratios of Sex-lethal and Deadpan genes, which in turn are proportional to the ratio of X chromosomes to autosomes [AW-toh-sohmz]. Gap and pair-rule genes were discovered in this organism; those genes are responsible for segmentation of their bodies. The salivary glands of this organism contain oversized chromosomes, and this organism contains transposons called P elements. The concept of sex-linked traits was proposed by Thomas Hunt Morgan while researching white-eyed mutants of this organism. Name this model organism, an insect in genus *Drosophila*.

Answer: fruit fly/ies [accept *Drosophila melanogaster* before "*Drosophila*"]

8. This book suggests that statisticians should determine which government is best by finding where the population increases the most. This book adds that country comparisons are difficult because men in hot climates consume less than men in cold climates. It claims that gaining a possession by being the first occupier is more legitimate than by being the strongest. This book begins by asking whether there can be a sure and legitimate rule of administration, and it states that the structure of society is better seen as a sacred right rather than the result of force. It states "Man is born free, and everywhere he is in chains." Name this work by Jean-Jacques Rousseau.

Answer: *(Of) The Social Contract(, Or Principles of Political Right)* [or *Du contrat social ou Principes du droit politique*]

9. A constant plus this function is used to approximate partial sums of the harmonic series. The Mercator series is used to approximate this function applied to the quantity $1 + x$, and is calculated by alternately adding and subtracting terms of the form x^n/n ["x to the nth power, divided by n"]. Applying the complex version of this function to negative one yields the opposite of i times pi. The derivative of this function is the reciprocal function, $1/x$ ["one over x"]. This function was used to design slide rules and is used for the decibel and Richter scales. Name this function, the inverse of the exponential function, that uses the base e.

Answer: natural <u>logarithm</u>(ic function) [accept answers that include <u>logarithm</u> and base e; do not accept answers mentioning "common"]

10. One system to predict this phenomenon is the IRI/CPC plume, which is based on data from the 3.4 region. This phenomenon occurs after the Madden–Julian oscillation and either the weakening or reversal of the Walker circulation. One part of predicting this event compares the Darwin pressure anomaly to the Tahiti pressure anomaly, and this event is often followed by a smaller event whose changes are in the opposite direction. This phenomenon includes a strong jet stream across the southern United States and warm temperatures in the Pacific, and it occurs approximately every five years. Name this part of the Southern Oscillation that is often followed by La Niña.

Answer: <u>El Niño</u> Southern Oscillation [or <u>ENSO</u>; prompt on <u>Southern Oscillation</u>; do not accept "La Niña"]

11. In one story by this writer, a fictional poet claims that the first line of a poem "wins the applause of the professor, the academician, and the Hellenist." That story is named for a place in a cellar that "is one of the points in space that contains all other points". Another story by this writer features the great grandson of the governor of Yunnan, who had given up his governorship to write a book and build a labyrinth. He wrote about an enormous number of hexagonal rooms in "The Library of Babel". Name this author of "The Aleph" and *The Garden of Forking Paths* whose works were collected in *Ficciones* [feek-see-OH-nayss].

Answer: Jorge Luis <u>Borges</u>

12. This artist used his son Jarvis as a model for a painting of a family saying grace at a restaurant during Thanksgiving. Nancy Reagan presented a mosaic based on a painting by this artist to the United Nations building. This artist of *The Golden Rule* painted Ruby Bridges entering a newly desegregated high school in *The Problem We All Live With*. This artist depicted a man in a striped, blue-collared shirt rising to speak in the first work from his *Four Freedoms* series. Name this artist who portrayed Rosie the Riveter holding a sandwich on one of the many covers he made for *The Saturday Evening Post*.

Answer: Norman <u>Rockwell</u>

13. This man was noted for his use of what he called "wars of detachment", which used quick hit-and-run raids, as well as "tulip bombs", which twisted rails beyond repair on the Hejaz Railway. This man later introduced armored cars and motorcycles to the fighting, and he died during peacetime after swerving to avoid two boys on one of his Brough [bruf] Superior motorcycles. This man planned the capture of Aqaba and Damascus from Ottoman forces. This man served primarily as adviser to Emir Faisal, the man he helped to establish a short-lived pan-Arab government. Name this British officer who helped unite Arab forces against the Ottoman Empire during World War I.

Answer: T(homas) E(dward) <u>Lawrence</u> [or <u>Lawrence</u> of Arabia]

14. This hero is in Dante's eighth circle of Hell for abandoning both the mother of his son Euneus [yoo-NEE-uss] and another woman. He was considered a threat after losing one of his sandals while being carried across a river. After receiving advice from Phineus, this person was able to pass through the Symplegades [sim-PLEH-guh-deez] by sending a dove through the clashing rocks first. His sons Mermeros and Pheres [FAIR-eez] were murdered by their mother after this man married the daughter of the King of Creon, but his son Thessalus escaped. Name this hero who was assisted by Medea in Colchis [KOL-kiss] to get the Golden Fleece while he led the Argonauts.

Answer: <u>Jason</u>

15. Olivier Messiaen, who studied under the composer of this piece, claimed that this piece was a satire on symphonic poems. Its staccato notes, first heard on bassoon, include groups of two and five notes. This piece, subtitled "Scherzo" ["SCARE"-tsoh] after a ballad by Goethe [GRR-tuh], has been popular since its 1897 premier. This work shares the name of the poem that inspired it, though it was composed by a Frenchman. This piece became more popular when Leopold Stokowski conducted it in a 1940 film, and its best known section is the broomstick theme. Name this musical piece by Paul Dukas [doo-kah] that is used in the part of *Fantasia* featuring Mickey Mouse.

Answer: *The <u>Sorcerer's Apprentice</u>* [or L'*<u>apprenti sorcier</u>*]

16. The stability of these substances is related to the voltage drop at the double layers that surround the components of these substances. These substances destabilize when particles aggregate, a process called flocculation ["flock"-yoo-LAY-shun]. These substances often appear blue due to scattering caused by the Tyndall effect. When these substances are made up of a solid within a liquid, they are called sols, and when made up of two liquids, they are called emulsions. Unlike suspensions, these substances do not settle. Name this type of substance consisting of one substance dispersed in another, exemplified by milk and smoke.

Answer: <u>colloid</u>s [prompt on <u>sol</u>s or <u>emulsion</u>s before each is mentioned]

17. This person teamed with Alan Blinder to write books about the 1990s and teamed with George Akerlof to write *Efficiency Wage Models of the Labor Market.* This person took a leave from Berkeley to chair Bill Clinton's Council of Economic Advisers from 1997 to 1999. During this person's confirmation hearing in late 2013, there were questions about income inequality and quantitative easing. This person heads an organization that is supposed to promote "maximum employment, stable prices, and moderate long-term interest rates." Identify this woman who replaced Ben Bernanke as Chair of the Federal Reserve.

Answer: Janet (Louise) <u>Yellen</u>

18. The independence of this country was supported by the French Army under Étienne Gérard [ayt-yen zhair-ar] during the Ten Days' Campaign, and this country's revolution began after a performance of the opera *The Mute Girl of Portici.* The policies of one king of this European country were investigated by E. D. Morel, George Washington Williams, and Roger Casement. This nation was devastated when Germany invaded during World War I as part of the Schlieffen Plan, and several battles took place in its city of Ypres [EE-pur]. This country's Leopold II controlled the Congo Free State. Name this country comprising Wallonia and Flanders, which has its capital at Brussels.

Answer: (Kingdom of) <u>Belgium</u> [or (Royaume de) <u>Belgique</u> or (Koninkrijk) <u>België</u>]

19. In this novel, "the click had clicked" when one character hums a song that is only known to the protagonist and her children. Later in this novel, Mr. Bodwick is attacked with an ice pick when the protagonist confuses him with the schoolteacher. Another character gives his wife to another man and then decides that he does not owe anything to society, so he changes his name to Stamp Paid. The protagonist delivers her fourth child in a boat on her way to live with her mother-in-law Baby Suggs at 124 Bluestone Road in Cincinnati. Name this book about a former slave who kills one of her children, a novel by Toni Morrison.

Answer: *<u>Beloved</u>*

20. An Alberto Korda photograph of this man shows him gazing up at the Lincoln Memorial. The economic problems experienced by this leader's country are known as "The Special Period in Time of Peace". After a failed attack at the Moncada barracks, this person gave a four-hour speech ending with the words "history will absolve me." This leader and Venezuelan President Hugo Chávez started the Bolivarian Alliance for the Peoples of Our America. He gained power after leading the 26th of July movement to overthrow Fulgencio [fool-HEN-see-oh] Batista. The Bays of Pigs invasion tried to overthrow this man. Name this former Communist dictator of Cuba, who was replaced by his brother Raúl.

Answer: <u>Fidel</u> <u>Castro</u> [prompt on <u>Castro</u>]

TB21. The Poynting vector represents the density of the energy form of this value. Fourier's [fur-yay'z] law sets the density of this quantity for heat equal to thermal conductivity times the temperature gradient. The divergence theorem sets the surface integral of this quantity equal to the volume integral of divergence. One of Gauss's laws sets one form of this value equal to charge over permittivity. Faraday's law sets electromotive force equal to the opposite of the time derivative of the magnetic type of this quantity, which equals the magnetic field strength times area and is measured in webers. Name this measurement of the rate of flow.

Answer: __flux__

TB22. One character in this novel wants his body buried at the foot of the rock where the Cork-tree spring is. That character, Chrysostom, makes that wish because that is the location where he met Marcela, though Marcela said that he never had any chance with her. The title character of this novel says he will kill anyone who pursues Marcela, and he is dedicated to Aldonza Lorenzo, whom he refers to as Dulcinea. The title character claims to see giants, but he is corrected by his squire, who rides the donkey Dapple. Name this novel about a man who is followed by Sancho Panza and attacks windmills, a work by Miguel de Cervantes.

Answer: *(The Ingenious Gentleman)* __Don Quixote__ *(of La Mancha)* [or *(El ingenioso hidalgo)* __don Quijote__ *(de la Mancha)*; do not accept "(The) Man of La Mancha"]

TB23. Identify the body part that was sold by Della in the story *The Gift of the Magi*, was taken by Delilah thereby robbing Samson of his strength, and is a group of strands growing from the head which may be red, blonde, or brunette.

Answer: __hair__