## **NEW TRIER SCOBOL SOLO 2012**

## ROUND 6

Questions written and edited by David Reinstein with Sam Donow, Tom Egan, Mark Grant, Jonah Greenthal, Tanay Kothari, and Mike Laudermith



1. This political philosophy has been supported in the United States by Murray Rothbard, who wrote a manifesto that explained its non-aggression principle. Its consequentialist branch argues in favor of this philosophy based on efficiency and aligns with economists such as Ludwig von Mises in the Austrian School. Philosophically, this is the belief that people should fully own themselves, and its political supporters tend to oppose programs such as Medicare and Social Security. Name this movement related to anarchism and laissez-faire linked with politicians such as Ron Paul.

ANSWER: (civil) <u>libertarian</u>ism [prompt on <u>anarcho-capitalism</u> or classical <u>liberal</u>ism or market <u>liberal</u>ism or <u>minarchism</u> or <u>objectivism</u> or <u>constitution</u> alism or word forms thereof]

2. After the Civil War, this state was headed by a man nicknamed "The Fighting Parson", William Brownlow. Brownlow was a slavery apologist but had been strongly pro-Union, and he encouraged passage of the 14th amendment, which led to this becoming the first Confederate state fully restored to the Union. His policies antagonized Nathan Forrest, who started the Ku Klux Klan in this state. The home of Constitutional Union Presidential candidate John Bell, its senators have included Estes Kefauver, Andrew Jackson, Andrew Johnson, and both the Senior and Junior Al Gores. It is also the state where John Scopes was found guilty of teaching evolution and where Martin Luther King, Jr. was assassinated. Name this state that used to be part of North Carolina, which since many of its citizens chose to go into the military is nicknamed the "Volunteer State".

ANSWER: Tennessee

- 3. An example of this class was discovered in China in 1993 and classified as the genus Confuciusornis [kun-FYOO-shus-OR-niss], while an early example in the Americas was the Phorusrhacos [for-us-RAH-kos], which is similar to but larger than modern-day seriemas [sair-ee-AY-mahz]. Jacques Gauthier [goh-tee-ay] claims that this class of animals descended from theropods. These vertebrates have a synsacrum [sin-SAAK-rum] instead of a pelvis, and their constant-volume lungs are supplemented by anterior and posterior air sacs. The earliest known example is the Archaeopteryx [ar-kee-AHP-tur-iks], which like modern examples contained a furcula, or wishbone. Name these animals that include passerines, sandgrouse, loons, cranes, and storks.

  ANSWER: birds [or Aves]
- **4.** One work by this poet asks "Who is he that every man in arms should wish to be?" In addition to "The Character of the Happy Warrior", he wrote a sonnet that ends with him saying he would rather be a Pagan seeing Proteus or hearing Triton. In another work, he speaks of steep woods and lofty cliffs that are more dear after being away from them for five years. In that poem he is traveling with his sister Dorothy, who has not been on the same location on the Wye River before. He wrote about a man who lost his daughter in his *Matthew* poems and about a girl who was lost in his *Lucy* poems. Name this early Romantic poet of "The World Is Too Much with Us", "Lines written a few miles above Tintern Abbey", and "I Wandered Lonely as a Cloud".

ANSWER: William Wordsworth

5. This function can be applied before using L'Hôpital's [loh-pee-tahl'z] rule to evaluate the limit as x approaches infinity of x raised to the power of one over x. Long before the invention of calculators, these were evaluated using the quantity one minus ten raised to the negative seventh power, raised to various powers. Adding one to x and then applying this function is approximately equal to x minus one-half x squared. For several applications, including finding a fractal dimension, it is helpful to apply this function to the scales of a graph. Applying this to a product is equivalent to finding the sum when this function is applied separately to the factors. Name this function credited to John Napier, which is used in the change-of-base formula and uses the base e for its natural type.

ANSWER: (natural or common) <u>log</u>arithms [accept answers that additionally mention a base]

6. A character in this novel is described as a mixture of quick parts, sarcastic humor, reserve, and caprice; and another character states "I do not cough for my own amusement." In this work, Mary King is proposed to after inheriting ten thousand pounds, an incident described in a letter written to Mrs. Gardiner in London. The man who proposes to her, a disappointed military officer and unsuccessful gambler named George Wickham, eventually marries Lydia. Wickham is often at odds with the owner of Pemberley, Mr. Fitzwilliam Darcy. Name this work about Elizabeth Bennet and her sisters, written by Jane Austen.

ANSWER: Pride and Prejudice

7. During this man's second tour of duty in Vietnam, he investigated a letter written to General Creighton Abrams, leading to accusations that this man covered up the severity of the My Lai [mee ly] Massacre. During the Reagan administration, this man served as a military assistant to Defense Secretary Weinberger before becoming Reagan's last National Security Adviser. He ended his military career as head of the Joint Chiefs of Staff under the elder Bush, where he became noted for working with Norman Schwarzkopf to win the Gulf War. Identify this former general who may have misled the United Nations when making the case for the American invasion of Iraq, who served under George W. Bush as the first African—American Secretary of State.

ANSWER: Colin (Luther) Powell

8. This painting is similar to a work by its artist that was set over the Rhone, while this work is set in a small town near Avignon [ah-vin-yohn], Saint-Rémy-de-Provence. The bottom center features a light blue church with a high steeple, while the left side is mainly taken up by a dark object that a later sketch identifies as a cypress tree. It is believed to reflect the view from the window of a sanatorium. Name this painting showing a bright crescent moon in a swirling sky, painted by Vincent van Gogh.

ANSWER: The <u>Starry Night</u> [or De <u>sterrennacht</u>]

**9.** A form of this process used in biological laboratories to determine the concentration of a virus or bacterium is known as ELISA, and EDTA is a complexometric form of this procedure for determining the concentration of metal ions in solution. The Zeta potential type of this procedure is used to characterize heterogeneous systems like colloids. A redox form of it can be used to analyze wines for sulfur dioxide, using iodine as an oxidizing agent and starch as an indicator to signal the endpoint. Name this laboratory technique often performed with an acid and a base, which uses a buret to find the concentration of a reactant by slowly adding it to a solution of known concentration.

ANSWER: <u>titration</u> [accept word forms]

10. The asymmetry of this deity may be explained by a fight he had with Parshuram or by his attempts to write down the narrative of Vyasa which became the *Mahabharata*. He won a contest by going around his parents instead of the entire Earth, which in some versions proved he was more intelligent than his younger brother Karthik. He normally was unable to travel quickly because he was large and rode a mouse, and when he fell off his mouse he was laughed at by the moon. This deity was created by his mother so he could guard her when she took a bath, but that ended poorly when his father wanted to see her. Name this son of Parvati who was beheaded by his father Shiva and then was brought back to life when his head was replaced by an elephant's.

ANSWER: Ganesha

- 11. This island is close to the former leper colony of Spinalonga, which is near the city of Elounda. It includes the Sitia Mountains near the archaeological site at Zakros and large palm forest at Vai. Those are in its eastern region of Lasithi, while its western regions are Chania and Rethymno. Its capital, which used to be known as Chandax and was then renamed by the Venetians to Candia, is now called Heraklion. An ancient civilization centered on this island, which is believed to have been destroyed in part by a volcano to the north at Thera, used a script called Linear A. Name this largest and most populous Greek island, the former center of the Minoan civilization. ANSWER: Crete
- 12. If a set of solutions to a differential equation have this property, their Wronskian [RAHN-skee-un] is nonzero. The smallest set of vectors that span a vector space and have this property is known as a basis; this property for vectors implies that no nontrivial linear combination of them equals the zero vector. The rows of a matrix must have this quality for the matrix to be invertible. If two random variables satisfy this property, their correlation coefficient is zero, and if two events have this property, the probability of their intersection is the product of their probabilities. Identify this property which in probability indicates that the result of one event has no effect on the result of another. ANSWER: (linear or statistical) independence [accept word forms of independent]
- 13. When this character got the measles, Jim Hollis called it a blessing and a warning, and after a relapse he saw Hollis conducting a trial for a cat. This person also mistimed quitting the Cadets of Temperance, doing so just before Judge Frazier died. He believes that holding somebody for ransom involves keeping them until they die, and he also said that the first two disciples were David and Goliath. His testimony at a trial absolved Muff Potter, causing Injun Joe to flee. Name this character cared for by his Aunt Polly, a close friend of Joe Harper and Huckleberry Finn. ANSWER: Tom Sawyer [accept either]
- **14.** This man survived an assassination attempt by Slovenian paramilitary forces working for TIGR. After escaping to Switzerland to avoid being drafted, this man fought for his home nation during World War I. This man edited a revolutionary newspaper called *Avanti!* and passed the Acerbo [ah-CHAIR-boh] Law while in power, during which time he invaded Albania and Ethiopia. This signatory of the Pact of Steel led a paramilitary organization called the Blackshirts and assumed the nickname "Il Duce [DOO-chay]" upon ascending to power. Name this Italian fascist dictator during World War II.

ANSWER: Benito (Amilcare Andrea) Mussolini

15. Unipolar types of these were originally designed by Michael Faraday using a spinning disk; natural examples of that type have been found in space, sometimes caused by the solar wind. These circuit devices can be combined to form transformers, allowing voltage levels to be stepped up. In general, the strength of these devices can be increased by increasing their core permeability, and their function can be explained using Lenz's Law and the Maxwell-Faraday Law. The potential difference across these is proportional to the derivative of current with respect to time, and they work by creating a magnetic field that creates a potential difference. Name these devices often consisting of coils of wire.

ANSWER: <u>inductor</u>s [prompt on <u>solenoid</u>s]

16. Artist John Olsen was commissioned to design a namesake mural for this building based on the poem "Five Bells". One venue in this building is a "playhouse" that features its city's Shakespeare Festival. It sits on Bennelong Point across from Harbour Bridge and features a central hall that contains one of the world's largest organs, as well as glazed white tiles that give this building its characteristic glow. Name this building designed by Jørn Utzon that is famous for its shell-shaped roofs, a music venue in Australia.

ANSWER: Sydney Opera House

- 17. This country's military botched Operation Susannah, an effort to plant bombs and blame them on groups in other countries that became known as the Lavon Affair. An uprising against it began in the Jabalia refugee camp in 1987. That was followed by a similar uprising starting in 2000 after disagreements over the 1993 Oslo Accords, which called for this nation to withdraw forces from two territories it controlled and may have led Yigal Amir to assassinate its prime minister. In 1987, the United States convicted Jonathan Pollard for spying for this nation. Prime Minister Menachem Begin [BAY-gin] signed the Camp David Accords with Egypt in 1978. Name this country whose first leader was David Ben-Gurion, and which replaced the British Mandate for Palestine with a Jewish homeland. ANSWER: State of Israel [or Medīnat Yisra'eil]
- 18. When this existed, some of its pioneers were Ron Stoughton at UCSB, Leonard Kleinrock at UCLA, Elmer Shapiro at the Stanford Research Institute, and Lawrence Roberts in Utah. They used Kleinrock's research on packet switching to improve on the circuit switching found in earlier efforts. Its nodes used Interface Message Processors, which are similar to modern-day routers. This technology also used Network Control Programs, which are analogous to communication protocols, and its applications increased with the development of file transfer protocol, though the majority of its early usage was for e-mail. Name this predecessor of the internet, developed by a part of the Defense Department.

ANSWER: (D) ARPANET [prompt on the internet before it is mentioned]

19. This musical genre is used for the first movement of Aram Khachaturian's Masquerade Suite and the third movement of Tchaikovsky's fifth symphony. The first one written specifically for concert performances, which is in rondo form, is Carl Maria von Weber's Invitation to the Dance. This term is preceded by "Grande" and followed by "Brillante" in the name of some works by Frédéric Chopin, but his best known example is named for its short length, which is about a minute. Another example, written just after Austria lost a war with Prussia, is The Blue Danube. Name these pieces, many of which were written by the two Johann Strausses [SHTRAOSS-uz], often written as dances in three-four time.

ANSWER: waltzes [or valses; accept Grande Valse Brillante]

**20.** In one work by this author, Mariane loves both Norberg, who is absent, and the protagonist. That work, which is sometimes credited as the first *bildungsroman*, is *Wilhelm Meister's Apprenticeship*. In another work by this author, the protagonist falls in love with Charlotte, who is engaged to Albert, and his story is told through letters written to Wilhelm [VIL-helm]. This writer also wrote a work in which a man goes for a walk on Easter with his assistant Wagner [VAWG-nur]. That title character, who will die immediately if he experiences a perfect moment, takes in a stray poodle that transforms into Mephistopheles, with whom he makes a deal. Name this 19th century German author of *The Sorrows of Young Werther* and *Faust*.

ANSWER: Johann Wolfgang von Goethe [GRR-tuh]

**TB1.** During the Gothic War, this island was the first to be captured by Belisarius for the Byzantines. The Norman invasion of this island to displace Arab invaders is considered by some to be the start of the Crusades, and shortly before Spaniards took over in 1298, a war on this island led to rival claimants to the throne that would result in a 19th-century dual monarchy. Its namesake kingdom was sometimes merged with Naples and Sardinia. Identify this island that saw the Italian authorities also fight La Cosa Nostra, found off the southern tip of the Italian peninsula. ANSWER: Sicily

**TB2.** One architect from this nation designed a chapel whose cruciform is carved out of a concrete wall. An airport located on an artificial island in this country includes an extensive transport system called the Wing Shuttle that was designed by Renzo Piano. In addition to the KIX terminal, this nation features a museum carved out of a mountaintop, the Miho, which was designed by I. M. Pei. This nation's capital features a hotel designed by Frank Lloyd Wright that survived the Great Kanto Earthquake but was largely replaced in 1968. Name this nation that is home to the Imperial Hotel in Tokyo.

ANSWER: Japan [or Nihon-koku or Nippon-koku]

**TB3.** This is the birth month of Alan Turing, George Herbert Walker Bush, and Jefferson Davis. Name this month featuring Bunker Hill Day, Flag Day, and Father's Day that follows May. ANSWER: <u>June</u>