

# Scobol Solo 2017

## Packet 6 (Round 6)



1. The governance of this country is supposed to follow the Ten Principles for the Establishment of a Monolithic Ideological System. The half-brother of this country's leader was killed in 2017 using nerve agents at an airport. In 2016, a tourist to this country was sentenced to 15 years in prison for stealing a propaganda poster. That tourist, who was sent to Cincinnati after falling into a coma, was Otto Warmbier ["warm-BEER"]. This country's leader has been called "Rocket Man" by President Trump. This country recently threatened to use its rockets to attack Guam, and it has fired missiles over Japan. Name this country led by Kim Jong-Un.

Answer: North Korea or Democratic People's Republic of Korea or DPRK [prompt on Korea]

2. A "disc" named for this person has differently-colored sectors so that when the disc is spun quickly, it looks white. This person observed that the rate of change of an object's temperature is directly proportional to the difference between the object's current temperature and its environment's temperature, which is now called his "law of cooling". This person feuded with Robert Hooke about observations he made using the first successful reflecting telescope. Name this English scientist who developed the law of inertia as the first of his three laws of motion.

Answer: Isaac Newton

3. This president signed an executive order to end segregation in the armed forces. This president's foreign policy doctrine was the support of "free peoples" against "totalitarian regimes" and began with his support of Greece and Turkey. This president supported the creation of the United Nations as well as the rebuilding of Europe by the Marshall Plan. This president approved the dropping of *Fat Man* and *Little Boy*, the atomic bombs that hit Japan. Name this president who narrowly defeated Thomas Dewey in the 1948 election and who succeeded Franklin Roosevelt.

Answer: Harry S. Truman

4. A Langston Hughes poem states that if these things die, "Life is a broken-winged bird." A John Donne poem named for one of these things begins "Dear love, for nothing less than thee" and ends, "but else would die". The end of an Edgar Allan Poe poem asks whether "all that we see or seem" is one of these things inside another one of these things. A different Langston Hughes poem says that these things can sag like a heavy load or explode. Hughes also asks whether one of these things can "dry up like a raisin in the sun." A Langston Hughes "montage" asks what happens if what things are "deferred"?

Answer: dreams

5. One type of this quantity is based on the assumption that real wealth is constant, and is named for John Hicks; on the other hand, if *nominal* wealth is assumed to be constant, that leads to the form of this quantity named for Alfred Marshall. Consumption, investment, government spending, and net exports combine to give the aggregate form of this quantity according to John Maynard Keynes [“canes”], who used the aggregate form of this quantity to explain recessions. The curve representing this quantity usually goes from upper left to lower right on a graph of price versus quantity sold. Name this measure of how much of a good consumers are willing to purchase at a given price, a quantity often contrasted with supply.

Answer: demand

***Check the score.***

6. A nucleo-synthesis prediction based on this event was confirmed by a 2017 measurement of deuterium [doo-TEER-ee-um] abundance in gas clouds lined up with an ultra-distant quasar [KWAY-zar]. The nucleo-synthesis named for this event took place during the photon epoch, which was a few steps after the inflationary epoch. The theory based on this event is better supported than alternative “steady-state” theories, thanks in part to the discovery of cosmic microwave background radiation. Name this event that occurred about 14 billion years ago and created the universe.

Answer: Big Bang

7. A 14th-century king of this country was so short he was nicknamed “Elbow-high”; he fought an indecisive war against the Teutonic Knights. That king’s son, who ended this country’s Piast dynasty by not producing a son, was Casimir the Great. A commonwealth that eventually became one of Europe’s largest countries was formed when this country’s Queen Jadwiga [yahd-VIG-uh] married Jogaila [“yo-guy”-lah] of Lithuania. Prussia’s Frederick the Great and Russia’s Catherine the Great partitioned this country. Soviet control over Eastern Europe was weakened by this country’s Solidarity movement, starting in G·dansk. Name this country whose capital was the namesake of the Soviet Union’s biggest alliance, the Warsaw Pact.

Answer: Republic of Poland [or Rzeczpospolita Polska]

8. One composition by this person has five movements, the third of which is *La Paix* [pay], or *The Peace*, and the fourth of which is *La Réjouissance* [rezh-wee-swahnss], or *The Rejoicing*. This composer wrote that piece for a celebration of the end of the War of the Austrian Succession. Another work by this composer has been performed at every English coronation since it was written in 1727 for George II. This composer of *Zadok the Priest* wrote an oratorio that was originally performed on Easter but is now commonly performed for Christmas. Name this composer of *Music for the Royal Fireworks* whose *Messiah* oratorio includes the “Hallelujah” chorus.

Answer: George Frideric Handel [“handle”] [or Georg Friedrich Händel]

9. In a Fanny Britt graphic novel, Hélène is excited about reading this novel. Jean Rhys [jeen reess] wrote a prequel to this novel called *Wide Sargasso Sea*. In this novel, Helen is criticized for actions such as standing on the side of her shoe and not holding her head up; Helen dies of typhus, but she is remembered by this novel's title character for comforting her after the title character broke her slate. In that incident, the title character of this novel was shamed by Mr. Brocklehurst at Lowood. This novel is partly set at Thornfield Hall, which is overseen by Edward Rochester. Name this novel about an orphan, written by Charlotte Brontë.

Answer: Jane Eyre

10. This principle is used to explain both neutron and electron degeneracy pressure, which keeps neutron stars and white dwarfs from collapsing. This principle is justified in quantum mechanics by the fact that some particles' wave-functions are anti-symmetric under particle interchange. This principle is named for the person who further developed Markus Fierz's spin-statistics theorem, which helps demonstrate why this principle only applies to particles with half-integer spin, which are called fermions. Name this principle that, when applied to molecular orbitals, states no two electrons can have the same four quantum numbers.

Answer: Pauli exclusion principle [prompt on partial answer]

**Check the score.**

11. After Pedro de Alvarado gave the people of this empire permission to celebrate a holiday, he killed many of them in the Massacre in the Great Temple. The Boturini Codex and Florentine Codex are records of this empire, though many of its records were ordered to be destroyed when this empire formed a triple alliance and defeated the Tepanecs [TEH-puh-neks]. This empire used a 260-day ritual calendar that started at the same time as their solar calendar every 52 years. This empire's capital was Tenochtitlan [teh-nohch-TEET-lan], and it was led by Tizoc [teez-OHK] and Montezuma. Name this Mexican empire that Hernán Cortés destroyed.

Answer: Aztec Empire or Aztecs [or aztecas or Aztec Triple Alliance or Mexica(s) [may-SHEE-kah] or Excan Tlahtoloyan; accept Tenochcas [teh-NOHCH-kuz] before "Tenochtitlan"]

12. According to Plato, this god fathered five sets of twins who ruled over Atlantis. Before the Trojan War, this god sent a monster to attack Troy after he and Apollo were not paid for building the city's walls. When this god had sex with Medusa, Athena became enraged and changed Medusa's hair into serpents. Through Medusa, this god fathered Pegasus. This god tried to become the patron of Athens, but the water spring he gave them was too salty, causing him to be passed over. For being on the winning side in the Titanomachy ["Titan"-AH-muh-kee], this god was given domain over part of the world, like his brothers Zeus and Hades. Name this god of the sea who often held a trident.

Answer: Poseidon or Neptune

13. One of the last paintings by this artist shows a central brown and green striped path and several black birds on the right. That painting is *Wheatfield with Crows*. Another painting by this person shows a person leaning at a table with a foxglove plant. That person, who took care of this painter, is Dr. Gachet [ga-shay]. Another painting by this person shows a man in white standing next to a pool table in the center, and on the periphery there are several customers sitting at tables. Name this late-19th-century Dutch artist who depicted a swirling night sky above a village in *The Starry Night*.  
Answer: Vincent (Willem) van Gogh

14. A character in one play by this writer says “Liquor is one way out and death’s the other” when discussing his relationship with Skipper and his father’s cancer. In the next scene in that play, this writer used the characters Mae and Gooper, who are called Sister Woman and Brother Man. Near the end of another play by this writer, a woman holds a doctor’s arm and says, “Whoever you are—I have always depended on the kindness of strangers.” In that play by this author, Stanley Kowalski gets his wife to return to him by yelling her name, Stella, and Blanche DuBois [doo-bwah] goes to New Orleans. Name this playwright of *Cat on a Hot Tin Roof* and *A Streetcar Named Desire*.  
Answer: (Thomas) “Tennessee” Williams

15. The case of Stewart’s Theorem in which the cevian [CHAY-vee-un] is one of these segments is equivalent to Apollonius’s Theorem, which relates the lengths of these segments and the lengths of sides. The feet of these segments are the vertices of a triangle similar to the original triangle with a half-rotation and one-fourth the area of the triangle used to define these segments. Within a triangle, these segments all intersect at a point that divides them in a 2 : 1 [“2 to 1”] ratio: the centroid. One of these segments divides a triangle into two triangles of equal area. Name these line segments in a triangle that connect a vertex to the midpoint of the opposite side.  
Answer: median(s)

**Check the score.**

16. In 2013, the DC. Court of Appeals revoked a permit to extract this resource at the Spruce One site. In 1959, the extraction of this resource caused a disaster involving the Susquehanna [SUSS-kwih-HAN-uh] River. In 1907, over 300 workers were killed while extracting this resource in the Monongah [muh-NAWN-guh] disaster. The city of Centralia, Pennsylvania was deemed unlivable after an accident involving the extraction of this resource caused a decades-long underground fire. This non-metallic resource is used in steel production and to generate about half of the electricity used in the United States. Extracting this resource is very hazardous, often giving black lung diseases to miners. Name this fossil fuel whose bituminous [bih-TOO-mih-nuss] form is mined throughout Appalachia [ap-uh-LAY-chuh].  
Answer: coal [accept more specific answers; accept anthracite or lignite]

17. A song in this musical states “You’re home with your own when company’s expected, you’re well protected!”. Soon after that song, a character in this musical sings “Could it be, yes it could” and adds “Maybe tonight” in the song “Something’s Coming”. Near the end of this musical, one of the characters sings “Hold my hand and we’re halfway there, / Hold my hand and I’ll take you there” in the song “Somewhere”, soon after Chino shoots Tony. This musical portrays a rivalry between whites and Puerto Ricans in New York City. Name this Leonard Bernstein musical about the gangs the Jets and the Sharks.

Answer: West Side Story

18. A city in this country was taken over by the Fraser expedition during the Anglo-Turkish War in the early 19th century, soon after Muhammad Ali took control of this country with support from Albanian mercenaries. This country made peace with Israel in the Camp David Accords, which may have led to the assassination of its president Anwar Sadat. This country had lost the Gaza Strip and Sinai Peninsula to Israel in the Six-Day War. A 1956 multi-national invasion of this country began after Gamal Abdel Nasser nationalized the Suez Canal. Name this country where the Fraser expedition took over the city of Alexandria.

Answer: (Arab Republic of) Egypt [or Gumhuriyat Misr al-Arabiyah]

19. One novel by this author begins by describing a day in 1482 in which there was a bonfire, a maypole, and a mystery. In that novel, this author wrote about a man engaged to his cousin who is stabbed in the back while seducing another woman, who is then tried for murder. In another novel by this author, a girl who is taken advantage of by the Thénardiens [tay-nard-yayz] and who later falls in love with Marius Pontmercy [pawn-mair-see] is the daughter of Fantine [fahn-teen] and is named Cosette [koh-set]. Name this author who wrote about Captain Phoebus [fee-bus] and Esmeralda in *The Hunchback of Notre-Dame*, and about Cosette and Jean Valjean in *Les Misérables*.

Answer: Victor(-Marie) Hugo

20. When this organ does not develop properly in a fetus, it can be labelled “multicystic dysplastic”. The rate at which this organ works is affected by afferent arterioles [AFF-ur-rint ar-TEER-ee-ohlz], which in turn are affected by this organ’s macula densa cells, which are sensitive to sodium levels. Disease in this organ can be detected by high creatinine [kree-AT-ih-nin] levels. This organ’s functional unit, which contains the loop of Henle [HEN-luh] and the Bowman’s capsule, is called the nephron [NEFF-rahn]. When this organ does not function properly, dialysis helps replace its function. Calcium can build up in this organ to form painful stones. Name this organ that filters blood to create urine.

Answer: kidneys

***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.***

- <sup>TB</sup>21. The contrast between this country and India is a topic of “Swimming Lessons”, a story in the collection *Tales from Firozsha Baag* [fih-“ROSE”-zhuh BAHG] by Rohinton Mistry. Another author wrote about returning to Sri Lanka from this country in *Running in the Family*. A current author from this country wrote about a prison performance of *The Tempest* in her novel *Hag-Seed*, and in another novel the same author used a dystopian version of the United States called Gilead as the setting of *The Handmaid’s Tale*. Name this home of Michael Ondaatje [ahn-DAH-chee] and Margaret Atwood.
- Answer: Canada

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

- <sup>TB</sup>22. In Zoroastrianism, this is the primary action that takes place during the *Yasna*, which ends with a strengthening of the water and is done while facing light. Three methods for performing this action—starting with a review of the Ten Commandments and the Seven Capital Sins—are described in *The Spiritual Exercises of Ignatius of Loyola*. In Islam, this action follows a cleansing called *wudu* [wuu-DOO]. Muslims go through *rakats* while performing this action, which involves bowing and then prostrating oneself as part of *salah*. Christians often begin this action with the words “Our Father who art in heaven”. Name this action in which a person tries to communicate with God.
- Answer: prayer or praying [accept recitation; prompt on worshipping ; accept salah before it is mentioned]

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

- <sup>TB</sup>23. U2’s Bono and The Edge wrote a musical about this superhero called *Turn Off the Dark*. This superhero fought Rhino, Chameleon, and Doctor Octopus. This character was raised by Aunt May and Uncle Ben after the death of his parents, Richard and Mary Parker. This character was portrayed by Tobey Maguire and Tom Holland. Name this superhero who was bitten by a radioactive arachnid and can shoot webs from his wrist.
- Answer: Spider-Man

***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.***