

# Scobol Solo 2016

## Packet 10 (Round 10)



1. After holding this title for thirty years, people were expected to wear a kilt with an animal's tail and then run a course four times with a white crown and a red crown. Those events, which were then repeated every three years, were called Sed Festivals or Heb-Sed. Facts about early holders of this position were recorded on the Palermo Stone. In addition to being a King of Persia, Artaxerxes [ahr-tah-ZERK-seez] III held this title after he defeated Nec-ta-ne-bo II. The last holders of this position belonged to the Ptolemaic [toh-luh-MAY-ik] dynasty, which included Cleopatra. Ramesses [RAM-sees] II was among what rulers who oversaw ancient Egypt?

Answer: pharaohs [prompt on king]

2. Crown ethers [EE-thurz] and quater-nary ammonium salts can serve this purpose by allowing transfer between two phases. Industrially used examples of these materials are typically coordination complexes with directing ligands [LIG-undz]. These materials can have their efficiency reduced in a process called "poisoning". The effects of these compounds can be visualized as lowering the "hump" on a reaction coordinate diagram, which means they reduce the activation energy of a reaction. Name these compounds that increase the rate of a reaction.

Answer: catalysts

3. Frederic Bartlett wrote a book about this ability that described his "War of the Ghosts" experiment, which he was able to connect to his schema theory. Hermann Ebbinghaus ["ebbing-house"] used experiments with consonant-vowel-consonant combinations to study this ability. George Miller wrote a paper called "The Magical Number Seven, Plus or Minus Two" about the "working" form of this ability, which is also called short-term. It is commonly defined as "the ability to store and retrieve information over time". Name this ability that might be described as "photographic" for someone who is especially good at it.

Answer: memory [or remembering; accept forgetting before "photographic"; prompt on recognition or recall before each is mentioned]

4. A composer from this country explained the concept of inverted chords in his *Treatise on Harmony Reduced to Its Natural Principles*. Another composer from this country wrote three *Gymnopédies* [zheem-noh-pay-deez]. Another composer from this country wrote a 16-minute piece in which a crescendo is played by alternating instruments over a snare-drum ostinato [ah-stih-NAH-toh], called “Boléro”. Another composer from this country included the movement “March to the Scaffold” in a piece about a man who takes opium, *Symphonie fantastique* [sawn-foh-nee fahn-tah-steek]. Name this European country that was home to Jean-Philippe Rameau [zhahn fee-leep rah-moh], Erik Satie [sah-tee], Maurice Ravel, and Hector Berlioz.

Answer: France [or French Republic or République française]

5. This author wrote a novel about William Green, a fugitive who goes by the name “Son” and falls in love with the Sorbonne graduate Jadine [zhah-deen]. In another novel by this author, Cholly impregnates his daughter, who is taken in by the MacTeer family and wishes to change her appearance. That novel by this author is set in Lorain, Ohio, and is about Pecola Breedlove. Another novel by this author is set at 124 Bluestone Road in Cincinnati, which seems to be haunted by Sethe’s [SETH-uh’z] daughter. Sethe tells Paul D. that she killed her daughter while escaping from slavery. Name this author of *Tar Baby*, *The Bluest Eye*, and *Beloved*.

Answer: Toni Morrison [or Chloe Ardelia Wofford]

### Check the score.

6. Srinivasa Ramanujan noted that  $e$  to the power of  $\sqrt{163}$  times this number is very close to an integer. If the spacing between several lines is equal to the length of the needle, then the answer to the Buffon’s needle problem is 2 over this number. According to Euler’s identity,  $e$  to the power of  $i$  times this integer equals  $-1$ . Multiplying by this number and dividing by 180 converts degree measures into radians. Name this number that equals a circle’s circumference divided by its diameter, and which is about equal to 3.14.

Answer: pi

7. This person leased a house called The Herbar with money he gained from capturing the ship *Rosario*. He sold that lease for his last voyage, which included a failed attack on a ship harbored in Puerto Rico and his death from dysentery near Portobelo, Panama. That voyage also killed this person’s cousin John Hawkins. While returning from one of his voyages, this explorer stopped at Sir Walter Raleigh’s Roanoke Colony. Queen Elizabeth knighted this man aboard his ship, which he renamed from *Pelican* to *Golden Hind*. The first Englishman to circumnavigate the world was what man who successfully fought the Spanish Armada?

Answer: Francis Drake

8. A museum in this city displays artwork owned by the House of Liechtenstein. During World War II, the colorful roof of this city's St. Stephen's Cathedral was burned, but it was quickly rebuilt. This city contains the largest *gloriette* ["glory"-et] — which is a building on raised land in a garden — at Schönbrunn Palace, which along with Hofburg Palace was the residence in this city used by many members of the Habsburg Family. The Danube River passes through this city between Linz [leents] and Bra-tis-lava. Name this city once home to several major composers, the capital and most populous city in Austria.

Answer: Vienna, Austria [or Wien]

9. One of this author's title characters is attracted by a flag showing a red bull on a green background, which temporarily takes him away from a quest to find the River of the Arrow. According to stories by this writer, Taff-imai Metal-lumai is responsible for writing the first letter and creating an alphabet. This author described a mariner making a grating after being eaten in the story "How the Whale Got His Throat". In addition to *Kim* and *Just So Stories*, this author wrote about a mongoose that fights cobras, Rikki-Tikki-Tavi. Name this author who wrote about Mowgli in *The Jungle Book*.

Answer: (Joseph) Rudyard Kipling

10. The existence of this particle was theorized in "Quantized Singularities in the Electromagnetic Field" by Paul Dirac. This particle was discovered by studying the path of cosmic rays in a magnetized cloud chamber, with the finding that it had the same charge-to-mass ratio as a different particle but curved in the opposite direction. This particle discovered by Carl Anderson creates gamma-ray photons when it collides with an electron, resulting in the annihilation of both the electron and this particle. Name this antiparticle of the electron.

Answer: positron [prompt on anti-electron or anti-particle or anti-matter]

**Check the score.**

11. In 1662 in this city, blacklists were used to blame people with Catholic ties for an economic crisis, leading to the Copper Riot. Kuzma Minin and Dmitry Po-zhar-sky liberated this city in 1612. Fedor von Bock tried to capture this city, but Operation Typhoon approached too slowly, running out of supplies as winter approached, and was turned back by troops under future Battle of Stalingrad hero Georgy Zhukov. This city was burned and abandoned when Napoleon entered it just after the Battle of Borodino. Name this city that used to consist of a fortress called the Kremlin, and which is now the capital of Russia.

Answer: Moscow, Russia [or Moskva]

12. According to the Book of Ether in the Book of Mormon, this word describes what was in Alma and Amulek that caused the prison to tumble, and it also describes what was in Nephi and Lehi that wrought the change upon the Lamanites. According to the Book of James, someone will say, “You have [this] and I have works.” In the Book of Hebrews, this word “is the assurance of things hoped for, the conviction of things not seen.” In First Corinthians, this word is grouped with “hope” and “love”, though in some translations “love” is replaced with “charity”. Give this word that means a complete trust or a strong belief in God.

Answer: faith

13. In one novel by this author, the national leader — who jails 2,000 children who picked winning lottery numbers for him — takes the title of General of the Universe and heads an unnamed Caribbean nation. That man is a centenarian, like this author’s Úrsula Iguarán [OOR-soo-lah eeg-war-AHN] in another novel. One of Úrsula’s sons fathers 17 sons by 17 different women, and they are all named Aureliano, like him. This author also wrote about the love between Flor-en-tino Ariza and Fer-mina Daza before she marries Dr. Juvenal Urbino [HOO-vay-nahl oor-BEE-noh]. Name this author of *The Autumn of the Patriarch*, *Love in the Time of Cholera*, and *One Hundred Years of Solitude*.

Answer: Gabriel García Márquez [prompt on Márquez]

14. A 2014 study found that tonal languages only develop where this property of the environment is generally high. Some insects — including hawkmoths — have hygroreceptors that detect changes in this quantity, and use those changes to find nectar. Silica gel is used to reduce this quantity. People with asthma are encouraged to be in areas where this value is low to avoid dust mites and mold. The dew point is reached when the relative type of this value is 100%. The heat index is based on temperature and this quantity. Name this measure of the amount of water vapor in air.

Answer: (relative or absolute) humidity [or moisture; accept specific humidity; prompt on answers referring to water vapor concentration before “vapor”]

15. At least one painting by this artist shows Mary holding Jesus in her left arm while Jesus looks at the tip of the yarnwinder he is holding. In another painting by this artist, Baby Jesus plays with a lamb while his grandmother, Anne, watches Mary reach for him. A drawing by this artist includes notes based on the work of an ancient architect; that drawing shows a naked man holding two poses inside a square and a circle, and is called *The Vitruvian Man*. This artist’s portrait of Lisa Gherardini [gair-ar-DEE-nee] is the most popular attraction in the Louvre [loov]. Name this 15th- and 16th-century Italian who painted the *Mona Lisa*.

Answer: Leonardo da Vinci [accept either underlined part]

**Check the score.**

16. The killing of these animals led to the 2016 arrest of Samuel Pem·be·le, who belongs to the group 2PAC. One of these animals named Mohan was rescued by Wildlife SOS in 2016 from Lucknow [[“LUCK-now”](#)], India, where it had been mistreated for 50 years. In September 2016, two New Jersey state senators introduced a law banning the use of these animals in traveling animal acts. Human actions cause the population of this animal in Africa to decrease by 8% per year. Some of the efforts to prevent the killing of these animals also prevent the killing of rhinos for their horns. Name these animals often attacked by poachers who want the ivory in their tusks.

Answer: elephants [accept more specific answers; prompt on pachyderms]

17. This person wrote “take the Cash, and let the Credit go” in a poem advising people to be more interested in this world than in the “paradise to come”. This person also advised not to worry about the past with the line “The moving finger writes, and, having writ, moves on.” He claimed that “Wilderness were paradise enough” in a poem that praises “a jug of wine, a loaf of bread — and thou”. Each of this writer’s poems is four lines long, and they gained fame after being translated into English by Edward FitzGerald. Name this 11th- and 12th-century Persian scientist who wrote the *Rubáiyát*.

Answer: Omar Khayyam [or Ghiyath ad-Din Abu'l-Fatáyë 'Umar ibn Ibrahim al-Khayyam Nishapuri]

18. The health of this organ can be monitored by looking at levels of SGPT and SGOT, both of which are transaminase [[“trans-AM-in-ace”](#)] enzymes. Ducts in this organ are affected by primary sclerosing cholangitis [[skluh-ROH-sing koh-lun-JY-tiss](#)]. The Cori cycle occurs in the muscles and this four-lobed organ, converting lactic acid back into glucose. After heme [[heem](#)] is broken down, the resulting bilirubin [[BIL-ih-roo-bin](#)] is made soluble in this organ. Jaundice often occurs due to damage in this organ, which contains ducts that transport bile into the gallbladder. Name this large organ responsible for detoxification, which is commonly damaged in alcoholics.

Answer: liver

19. This jazz musician recorded the “Cancion del Fuego Fatuo [[kahn-SYONE del FWAY-go FAH-twoe](#)]” section of Manuel de Falla’s *El amor brujo* [[BROO-hoe](#)], calling it “Will O’ The Wisp.” The bassist Ron Carter was part of this musician’s second great quintet, which last played together on the album *Filles de Kilimanjaro* [[“feel” d’ kil-ih-mun-JAR-oh](#)] before Dave Holland replaced Carter on the album *In a Silent Way*. Gil Evans arranged several albums by this performer, including *Porgy and Bess*, and this man joined with drummer Max Roach in Evans’ basement to develop cool jazz. The pianist Bill Evans co-wrote “Blue in Green” and “Flamenco Sketches” with this trumpeter. Name this jazz musician whose albums include *Sketches of Spain* and *Kind of Blue*.

Answer: Miles (Dewey) Davis (III)

20. When the Baker-Fancher wagon train tried passing through what is now this state in 1857, the people in it were killed; that event in this state is called the Mountain Meadows massacre. There were several minor armed confrontations when President Buchanan installed Alfred Cumming as the governor of what is now this state. In 1848, settlers in this state were saved by flocks of seagulls that ate crickets that were destroying crops. In 1869, the Transcontinental Railroad was completed in this state at Promontory Point. Brigham Young was the first territorial governor of what state, in which several conflicts arose from the polygamous practices of early Mormon settlers?

Answer: Utah

***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.***

- TB21. A Sumerian myth regarding one of these events features the king Ziusudra [zee-uh-SOOD-ruh] sacrificing an ox and a sheep. The offering of human flesh by the Lycaon [“like-A-on”] to Zeus causes one of these events to occur. After one of these events, a couple is told to throw the bones of their mother, which they understand as meaning to throw stones. Paralleling the story of Ut-na-pish-tim, Prometheus warns his son Deucalion [doo-KAY-lee-ahn] about one of these events, allowing him to survive by hiding in a chest. One of these events slays the men of the Bronze Age, and leads into the Heroic Age. Name these events that some mythical characters, such as Noah, survive by building a boat.

Answer: (great) flood(s) [or deluge]

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

- TB22. Some of the recent studies of this planet have focused on the minerals around veins at Yellowknife Bay in Gale Crater. A paleo-lake existed in this planet’s Kashira Crater, which is in its Margaritifer [mar-guh-RIH-tuh-fur] Terra region, and which was photographed by the Reconnaissance Orbiter in 2016. The Mariner 9 probe found indirect evidence of water on this planet, and the *Phoenix* lander found water ice below its surface. This planet has also been visited by the rovers *Spirit* and *Opportunity*. Its two moons are Phobos and Deimos. Name this fourth planet from the Sun.

Answer: Mars

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

- TB23. The physical size of floppy disks was given by this unit of measure, at first 8, and then  $5\frac{1}{4}$ , then  $3\frac{1}{2}$ . An angry piece of flesh named for this unit of measure is named in the title of a rock musical about Hedwig. A famous saying says that if you give somebody this length, they will take a mile. This unit is defined as 25.4 millimeters. Name this measure of length equal to  $\frac{1}{36}$  of a yard and also equal to  $\frac{1}{12}$  of a foot.

Answer: inch

***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.***