

# Scobol Solo 2015

## Packet 13 (Round 13)



1. One novel by this author is about a boy who travels halfway around the world on the *Oronsay*. This person wrote about returning to Asia to explore the childhood he had “ignored and not understood” and about the alcoholism of his father Mervyn in *Running in the Family*. One novel by this author involves a bomb defuser named Kip; set just after World War II, that novel also features a thief whose thumbs have been removed, named Caravaggio, and a title character who turns out to be a Hungarian named Almasy. Name this Sri Lankan-Canadian author who wrote about a badly burned man in *The English Patient*.

Answer: (Philip) Michael Ondaatje

2. The substitution named for this person is used to integrate square roots of quadratic functions. Prime numbers of the form  $n^2 + n + 41$  [“*n squared plus n plus 41*”] are named for this person. A function whose output is the number of numbers smaller than and relatively prime to its input is called this person’s totient [TOH-shunt] function. He is also the namesake of the formula  $\cos x + i \sin x = e^{ix}$  [“*cosine x plus i times sine x equals e to the i x*”]. All polyhedra have a value of two for his “characteristic,” which equals vertices minus edges plus faces. Identify this Swiss mathematician whose namesake number is approximately 2.718.

Answer: Leonhard (Paul) Euler [OY-lur]

3. A stampede named for this river takes place in the town of Nampa each year. This river goes over Shoshone [shoh-SHOH-nee] Falls, which is nicknamed “the Niagara of the West”. The mouth of this river is just east of the mouth of the Yakima River near Ken-ne-wick. The Seven Devils Mountains are next to this river, near the deepest river-carved gorge in North America, Hells Canyon. This river goes through Jackson Hole shortly after starting out in Yellowstone National Park. This river goes by Twin Falls and forms the American Falls near Poca-tello. Name this tributary of the Columbia River that forms the northern part of the border between Oregon and Idaho.

Answer: Snake River

4. During this battle, a military leader’s request to surrender received a reply from his leader to fight “to the last soldier and the last bullet”. Before this battle, Order Number 227 commanded “Not one step back.” The successful counteroffensive of this battle was code-named Operation Uranus and went after the Romanian, Hungarian, and Italian troops on the attackers’ flanks. One of the German leaders, who was promoted to field marshal and captured on the same day, was Friedrich Paulus. Forces under Erich von Manstein lost to forces under Georgy Zhukov. Name this bloody battle fought near the Volga River during 1942 and 1943.

Answer: Battle of Stalingrad

5. One portrait by this artist shows a woman sitting off-center in a white chair with a flower pattern, wearing a white dress with a mauve sash. Another portrait shows Gretchen Warren sitting next to her daughter Rachel. He also showed several blindfolded soldiers, some on the ground and some walking, following a chemical weapons attack, in *Gassed*. After a wait of several years, this painter of *Lady Agnew of Lochnaw* moved one of the shoulder straps in his portrait of Virginie Avegno [veer-zhee-nee ah-vayn-yoh], the wife of Pierre Gautreau [goh-troh]. Name this artist who caused a scandal in 1884 in Paris with his *Portrait of Madame X*.

Answer: John Singer Sargent

**Check the score.**

6. These fragments contain an open canalicular [KAN-ul-IK-yoo-lur] system in their sol-gel zone. Factor 4 named for these fragments is a chemokine [KEE-moh-kyne] located in their alpha-granules. These fragments are usually disc-oid, but they grow pseudopodia [soo-doh-POH-dee-uh] when they are activated. These fragments contain receptors that convert fibrin-ogen [fy-BRIN-oh-jin] into fibrin [FIE-brin], a protein that binds with these fragments. These structures adhere to the sub-endo-thelium [SUB-en-doh-THEE-lee-um] when doing so maintains hemo-stasis [hee-moh-STAY-sis]. These blood fragments are activated during thrombosis to form a blood clot. Name these structures that are neither red nor white cells but are found in blood.

Answer: platelets [or thrombocytes]

7. The protagonist of this novel gets into an argument with Lucius Brockway, his boss at the Liberty Paints plant. In this novel, the protagonist gives what he thinks is a letter of recommendation to Mr. Emerson's son and several other people in New York City, but those letters actually warn against hiring him. Those letters were written by Dr. Bledsoe after this novel's protagonist took Norton to the *Golden Day*, a brothel that served many African-American World War I veterans. The protagonist of this novel had won a scholarship in a battle royal. The narrator of this novel, who is never named, lives in a New York basement room with many light bulbs. Name this novel completed in 1952 by Ralph Ellison.

Answer: Invisible Man [do not accept "*The Invisible Man*"]

8. In the Hindu tradition, this process includes *shub-ha-svik-rana* on the 13<sup>th</sup> day, during which people bathe, wear new clothes, make offerings to the planets, and have a feast. One form of this process in Islam lasts for four months and ten days and is called *iddah*. In the Be·at·i·tudes, Jesus says that people who do this will be comforted. As part of this process, Jews recite a prayer beginning with the word "yitgadal"; its initial phase often involves gathering in participants' homes and is called *shiva*. On Good Friday, some Christians show that they are going through this process for Jesus by wearing black. Name this process that close family and friends do following a death.

Answer: mourning [accept similar answers like grieving or remembering the dead; prompt on death; prompt on funeral if it is stated between "yitgadal" and "shiva"]

9. A leader of this region, who was killed by troops under Arnulf of Flanders, was William I [1] Longsword. Flanders Count Baldwin IV [4] was supported by this region's Robert the Magnificent. This region became a duchy by the Treaty of Saint-Clair-sur-Epte and was headed by Rollo. Before that, this land was part of Neustria. The siege at Château Gaillard led to King John's loss of control of this region a decade before he signed the Magna Carta. Harold Godwinson was killed by troops from this region led by William the Conqueror during an 11th-century conquest of England. Name this region of France invaded during Operation Overlord by Allied forces on D-Day.

Answer: Normandy [prompt on Norman]

10. This medium is used to surround a moon rock brought back by Michael Collins at the National Cathedral. Marc Chagall created "Peace" for the United Nations working in this medium, which he also used for Hebrew University's synagogue. Alphonse Mucha worked in this medium to create a work for St. Vitus Cathedral in Prague. *Autumn Landscape* and *The Holy City* at Brown Memorial Church were created in this medium by Louis Comfort Tiffany, as were several of his lamps. Name this medium that often uses strips of lead to separate pieces of different colors, and which is often used to make church windows.

Answer: stained glass (window(s))

### ***Check the score.***

11. This term is used as the name of the European Space Agency mission to study the Earth's magnetosphere [mag-NEET-oh-"sphere"] and its interaction with the solar wind, which followed a 1996 effort with this same name that ended quickly due to a software bug. This term also refers to Arches and Quintuplet, two objects near the center of the Milky Way. Those two objects are the "open" or "galactic" types of these objects, which are usually younger than the "globular" types. Name this term referring to gravitationally bound collections of objects, such as groups of stars or galaxies.

Answer: cluster

12. After its founder retired, this organization was led by Alan Frank Guttmacher [GOOT-mah-ker], whose namesake institute still supports its work. Four offices run by this group, including one in Pullman, Washington, were hit by arson attacks in 2015. In 1992, this organization brought a Supreme Court case against Pennsylvania's governor, Robert Casey. During a 2015 debate, Carly Fiorina dared Hillary Clinton and Barack Obama to watch a video about this group that was distributed by the Center for Medical Progress but did not actually contain much of what Fiorina said it did. Just after that debate, the U.S. House had hearings with Cecile [sub-SEEL] Richards, this group's leader. Name this reproductive health service provider that started as Margaret Sanger's American Birth Control League.

Answer: Planned Parenthood Federation of America [accept PPFA; accept American Birth Control League or ABCL before "Pullman"]

13. This leader was victorious at the Battle of Sabilla over the Ikhwan, a religious militia that he had created. While in his twenties, this man captured his original hometown by killing Ajlan. This leader's opponents were often assisted by Turks because this man was allied with Mubarak al-Sabah of Kuwait. This person took land from the Ra-shi-dis, gaining control over Najd [nejd]. This man then defeated Hussein bin Ali to gain control of Hejaz. This man fathered approximately 40 sons, and those sons are still in power six decades after this man died in 1953. Name this founder of the large country named for his family on the Arabian Peninsula.

Answer: Ibn Saud [or Abdulaziz; prompt on al-Saud or Saudi; accept Abdulaziz ibn Abdul Rahman ibn Faisal ibn Turki ibn Abdullah ibn Muhammad Al Saud]

14. In this novel, when Frederick Deuceace [doo-sayss] travels, his apartment is leased to a former butler, Charles Raggles, who is taken advantage of and moved from his place on Curzon Street to debtors' prison. One character in this novel gains the respect of his classmates at Dr. Swishtail's school by fighting Cuff; that character, William Dobbin, supports a widow after her husband dies at Waterloo. One couple in this novel is often broke even though the wife prostitutes herself and the husband is a good gambler. Name this novel in which Dobbin marries Amelia Sedley and Rawdon Crawley marries Becky Sharp, a work by William Makepeace Thackeray.

Answer: Vanity Fair (: *A Novel Without a Hero*)

15. Recent attempts to measure this constant by Guglielmo Tino [gool-YEL-moh TEE-noh] have used three clouds of ultracold atoms in a pipe. In Einstein's field equations, this constant is multiplied by  $8\pi$  ["eight pi"] times the stress-energy tensor and divided by the speed of light to the fourth power. An early precise measurement of this constant was determined from the Cavendish experiment. This value is multiplied by twice mass over radius inside a square root to calculate escape velocity. The units of this constant are Newton-meters squared per kilogram squared. Name this constant that appears in a law formulated by Isaac Newton to find the force between two objects with mass.

Answer: universal gravitational constant [or constant of gravitation or constant of gravity; accept Newton's constant before "Isaac"; prompt on (big or capital) G]

### **Check the score.**

16. One composition by this person was inspired by twin brothers falling in love with the same woman at a ball in Jean [zhahn] Paul's novel *Flegeljahre* [FLAY-gul-YAH-ruh]. The piece *Traumerei*, or dreaming, is the seventh of 13 works in his music inspired by memories of childhood. This composer of *Papillons* [pah-pee-lawn] and *Kinderszenen* [KIN-dairs-zeh-nen] used the notes E flat, C, B, and A in another piece to represent the town of Asch, the hometown of the woman who was then his fiancée, Ernestine von Fricken. Name this composer of the "Spring" and "Rhenish" symphonies who ended his engagement to von Fricken and then married the composer and pianist Clara Wieck [KLAR-ah VEEK].

Answer: Robert Schumann

17. A curve combining money supply and a preference for this quantity is crossed by a curve for investment and saving. A “flight to” this concept includes investments in treasuries due to an increased fear of risk. The premium theory named for this quantity states that investors prefer short-term investments. The expectation of deflation leads to the “trap” named for this concept, in which monetary policy is ineffective. While solvency refers to the ability to meet long-term needs, this term refers to the ability to meet short-term needs. Name this synonym of “marketability” that refers to the ability to turn an investment into cash quickly.

Answer: liquidity [do not accept “marketability”]

18. One work by this poet begins “green, how I want you green.” One collection by this writer includes poems about Tony Camborio, who loses his last name when he does not resist arrest. That collection ends with three historical ballads. A poem by this writer repeats the line “I don’t want to see it” in its section “The Spilt Blood”. The first section of that poem repeats the line “at five in the afternoon”, and is about the sudden death of this poet’s friend Ignacio Sánchez Mejías [meh-HEE-ahss]. Name this Spanish writer of *Gypsy Ballads* and “Lament for the Death of a Bullfighter”, who also wrote the plays *Blood Wedding* and *The House of Bernarda Alba*.

Answer: Federico García Lorca [prompt on partial last name]

19. These objects have an inherent Lorentzian profile due to the Heisenberg [“HIGH”-sen-bairg] uncertainty principle, causing homogeneous broadening. These entities gain width due to the motion of individual particles causing differences due to the Doppler effect. Each one of these entities corresponds to an electronic transition. Examples that appear for hydrogen can be found in the Pfund, Paschen, Balmer, and Lyman series. The wavelengths where these objects exist can be calculated using the Rydberg formula. Name these light or dark bands that can be viewed with diffraction gratings and that are used to identify compounds and elements.

Answer: spectral lines [accept emission lines or absorption lines or spectrum lines; prompt on emission spectrum]

20. The last chapter in a book by Ronald C. White Jr. about this speech is titled “Better than anything I have produced, but it is not immediately popular.” This speech stated, “little that is new could be presented,” and in fact it is believed to have only lasted about six minutes. Part of this speech focuses on a group it calls “a peculiar and powerful interest”. It urges its listeners “let us strive on to finish the work we are in” soon after saying they should work “with malice toward none, with charity for all”. This speech begins by referencing how circumstances had changed over the past four years. Name this speech given on the east side of the U.S. Capitol on March 4, 1865.

Answer: Abraham Lincoln’s second inaugural address [accept inauguration in place of inaugural; accept similar variations containing all underlined information; do not prompt on answers that omit “second” or equivalents thereof]

***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. Though he usually fought in Italy, during this war Alfonso Ferrero La Marmora worked with Aimable Pelissier [peh-lees-syay] of France at the Battle of the Chernaya. Some of the initial fighting was in Moldavia, which gained Bess-arabia at the end of this war. Some historians mark the start of this war as the Battle of Alma even though it followed the Battle of Sinop [sih-“NOPE”], because Sinop occurred before England and France were involved. During this war, the nickname “The Lady with the Lamp” was given to Florence Nightingale. This war also featured Lord Cardigan’s Light Brigade, which had to retreat at the Battle of Balacava. Name this war in which Europe supported the Ottoman Empire against the Russians at the Black Sea.

Answer: Crimean War

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

TB22. In one novel by this author, Clubin [kloo-ban] dies while destroying the steamship *Durande* [doo-rahnd]. That novel about Gilliatt on Guernsey [GURN-zee] is *Toilers of the Sea*. In another novel by this author, Phoebus de Châteaupers [FEE-buss day shah-toh-pair] marries Fleur-de-Lys [floor day lee] after thinking that he was stabbed by another woman. When a woman is hanged near the end of that novel by this author, the man responsible is pushed to his death, hitting a gargoyle on the way down. In another novel by this author, Bishop Myriel gives the protagonist two candlesticks. In that novel, Fantine [fahn-teen] is forced into prostitution to care for her daughter Cosette. Name this author of *The Hunchback of Notre Dame* and *Les Misérables* [lay mee-zair-ahb].

Answer: Victor (Marie) Hugo

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

TB23. This state’s governor is Jay Nixon. This state’s senators are Roy Blunt and Claire McCaskill. This state is north of Arkansas. Name this state whose cities include Independence, Jefferson City, and St. Louis.

Answer: Missouri

***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.***