

Scobol Solo 2020

Replacement Packet



1. These objects are sometimes baffled on the bottom, meaning that they have creases to increase surface area, such as with the Fernbach type. This is the bottom of two objects named for Ernst Büchner [BURK-nur] that are used together to filter samples. A Thermos is a vacuum-based example of this type of laboratory equipment and was invented by James Dewar [DOO-ur]. Name these laboratory containers with a wide body and a tubular opening, such as the conical type named for Emil Erlenmeyer.

Answer: flasks

2. In the Sommerfeld free electron model, the surfaces named for this person are spheres, though in general the surfaces show where electrons can go at the energy level named for this person. Those levels are the top energy levels at absolute zero. This person and Paul Dirac are the namesakes of the statistics showing the states of particles that obey the Pauli exclusion principle, and particles that do so are also named after this person. Situations that call for order-of-magnitude estimates are called the “problems” named for this person. Name this Italian physicist who came to Chicago and sustained the first human-made, self-sustaining nuclear chain reaction.

Answer: Enrico Fermi

3. The unit named after this person was defined by J. B. S. Haldane as the difference of the natural logs of structure sizes, all over the time elapsed. That unit named for this person is usually used with fossil measurements. The frogs named after this person are spit out by their father, and they live in Chile and Argentina. A group of birds were named after this person after he noticed that different species of them lived on different islands. Those birds are also called Galápagos finches. Name this author of *The Descent of Man* and *On the Origin of Species* who is credited for the theory of evolution.

Answer: Charles (Robert) Darwin

4. In a triple integral over this solid, one variable goes from one constant to another, another variable goes between $\pm\sqrt{a^2 - x^2}$ [“plus and minus the square root of the quantity a squared minus x squared”], and x goes between $\pm a$ [“plus and minus a ”]. Archimedes [ark-ih-MEE-deez] studied one of these solids that circumscribes a sphere, concluding that it has $\frac{3}{2}$ [“three-halves”] the sphere’s surface area and volume. This solid can be approximated by a prism as the number of lateral faces approaches infinity. Like a cone, each slice of this solid perpendicular to its axis forms a circle, though for this solid the circles are all the same size. Name this solid whose volume is pi times the radius squared times the height.

Answer: (right) (circular) cylinder

5. The record for most time spent in this place is held by Peggy Whitson. The construction of this place began with the connections between *Unity* and *Zarya*. This place contains the Alpha Magnetic Spectrometer, which has found evidence supporting the existence of dark matter. Reaching this place is the goal of the Boeing Starliner, and during 2020 Bob Behnken and Doug Hurley reached this place using the SpaceX Crew Dragon. This place has also been reached by vehicles from Japan and Russia. Name this project that is a collaboration between many countries and which orbits Earth.

Answer: International Space Station or ISS

Check the score.

6. This man's son Russell chaired the Senate Finance Committee from 1966 to 1980. When this person was a governor, he was accused of offering money and immunity to Harry Bozeman, his bodyguard, to kill Dynamite Squad leader J. Y. Sanders. Those accusations led to an attempted impeachment and a fight called "Bloody Monday". As a U.S. Senator, this person proposed limiting incomes to 1 million dollars as part of his Share Our Wealth program, which he promoted with the motto "Every Man a King". This man was killed by a doctor named Carl Weiss. Name this Louisiana Governor and Senator who was nicknamed "Kingfish".

Answer: Huey P(ierce) Long (Jr.)

7. This person turned against Anacharsis [ah-NAH-shar-siss] Cloots for being a foreigner and an atheist. This person was criticized by atheists—who supported the Cult of Reason—and by Catholics after this person developed the Cult of the Supreme Being. A speech by Jean-Lambert Tallien [zhahn lahm-bair tahl-yen] against this person led to chants of "Down with the tyrant!" at the beginning of the Thermidorian Reaction. This president of the Jacobin Club became the most powerful member of the Committee of Public Safety. Name this French Revolution figure who accused many people of treason during the Reign of Terror.

Answer: Maximilien (François Marie Isidore de) Robespierre

8. This explorer's third expedition started with five ships, and it is not known whether four of them ever returned. On this person's second expedition, he named some of the places he discovered "Cape Discovery", "St. George's Cape", and "the Trinity Islands", which probably correspond to Cape North, Cape Ray, and Saint Pierre and Miquelon [meek-lawn]. That expedition was made in the ship *Matthew* in 1497, leaving from Bristol. It is not known whether this person discovered Cape Breton Island or Newfoundland [NOO-fun-land]. Name this person who was born in what is now Italy and who sailed for England.

Answer: John Cabot [or Giovanni Caboto]

9. At the end of this war, the Earl of Derby [DAR-bee] was convicted of treason and beheaded shortly after he lost the Battles of Wigan Lane and Worcester [“WORSE”-tur]. This war began with the Battle of Edgehill, which ended inconclusively because Prince Rupert’s troops were more interested in plundering than in finishing the job. The largest battle of this war was the victory of Lord Fairfax and the Earl of Manchester at Marston Moor. This war was eventually a victory for the Round-heads over the Cavaliers. Name this war in which Charles I was beheaded and that eventually led to the rule of Lord Protector Oliver Cromwell.

Answer: English Civil War(s) [or Great Rebellion; prompt on British Civil War; accept answers that additionally mention “Third” before “Edgehill”]

10. In this novel, after one egg lands on a clock and another egg is crushed in the narrator’s hand, the narrator remembers that the last thing he ate was a hot fudge sundae at Dairy Queen. Two-Bit then calls this novel’s narrator “Baldy” and shows him a headline saying “Juvenile Delinquents Turn Heroes”. That headline refers to the rescue of school-children from a burning church by this novel’s characters Dally and Johnny. Name this novel about the Curtis brothers, including the greaser narrator Ponyboy Curtis, that was written by S. E. Hinton.

Answer: *The Outsiders*

Check the score.

11. In this novel, a fool is called “knave, slanderer, backbiter, and son of perdition” after the fool proposes that beggars be made lay-brothers and nuns. This novel describes the Anider River, which runs by the city of Amaurot. That city has a lottery every 10 years to determine which family lives in each house. Much of this novel is narrated to Peter Giles, and to a man who shares the name of this novel’s author, by Raphael Hythloday, who describes an island he lived on after traveling with Amerigo Vespucci [vess-POOT-chee]. This novel begins by saying the narrator was sent to Flanders by Henry VIII [8]. Name this novel describing a well-organized society, written by Thomas More.

Answer: *Utopia*

12. In one novel by this author, the characters are designing a newspaper for a simple audience, leading Simeon to state that puzzle clues should “Stick with Hitler, or the husband of Eve, or the mother of a calf.” That novel’s protagonist, Colonna, hears about a conspiracy theory that Mussolini was not killed. This author of *Numero Zero* wrote a novel in which a few people are found to have black marks on their fingers and tongue when they die. This author set that novel at a Benedictine monastery visited by Adso of Melk and William of Baskerville. Name this Italian author of *The Name of the Rose*.

Answer: Umberto Eco

13. Near the end of a poem by this writer, the colonel's son says "Last night ye had struck at a Border thief — tonight it is a man of the Guides!". That poem, in which this writer described the colonel's son losing a riding contest to Kamal [kuh-MAHL], states "never the twain shall meet." In another poem by this writer, the title character is at first referred to as a "limping lump of brick-dust". By the end of that poem, this writer calls the title character "better man than I am". That poem is about a water carrier. Name this poet who wrote "The Ballad of East and West" and "Gunga Din".

Answer: (Joseph) Rudyard Kipling

14. One painting by this artist depicts a woman standing in front of many men dressed in black and whose headwear has colors that match the red in the sky. That painting, *Anxiety*, appears to be set at the same place as this artist's most famous painting. This artist described his inspiration for that famous painting coming when he was walking and "Suddenly the sky became a bloody red" and "I stood there, trembling with fright." That 1893 painting shows a man with his mouth open and his hands on the sides of his head. Name this Norwegian painter of *The Scream*.

Answer: Edvard Munch [moonk]

15. In 1816, this composer turned 19 years old and completed his fourth and fifth symphonies and about 100 other pieces while teaching kindergartners. The symphony usually counted as this composer's ninth was first conducted by Felix Mendelssohn after this composer's brother Ferdinand showed it to Robert Schumann, who praised the symphony's "heavenly length". To contrast that symphony with this composer's sixth symphony, it is called "The Great C major". This composer's eighth symphony is entirely in triple meter, consisting of two movements and part of a scherzo [SKAIRT-soh]. Name this composer of the *Unfinished Symphony*.

Answer: Franz Schubert

Check the score.

16. This person directed the film *Vinyl*, which was based on *A Clockwork Orange* and had a cast that was entirely male except Edie Sedgwick. She also starred in this person's films *Lupe* and *Chelsea Girls*. This person used balloons to make what he called *Silver Clouds*, and he used plywood to make his *Brillo Boxes*. This artist's New York City studio was called "The Factory". Some of this person's best known works portray Mao Zedong and Marilyn Monroe using silkscreens. Name this artist who made depictions of Campbell's Soup cans.

Answer: Andy Warhol [or Andrew Warhola Jr.]

17. A statue depicting this goddess was captured during the Pyrrhic [PEER-ik] War and became the focus of an altar in the Roman Senate House after the Battle of Actium. That altar became a source of contention between Christians and supporters of Roman religion during the fourth century CE. This goddess was often depicted riding above battles in her chariot. More recently, this goddess is depicted on Olympic medals. A statue of this goddess that is now missing its head is displayed prominently in the Louvre. Name this goddess of victory.

Answer: Nike [or Victoria; prompt on Victory]

18. The diamond-water paradox is sometimes called the “paradox of” this quantity. That paradox led to arguments supporting both the labor theory and the subjective theory of this concept. The “present” type of this concept equals a future amount of money divided by the quantity 1 plus the interest rate raised to the power of time. Many countries, but not the United States, use a tax that is based on how much of this quantity is “added” to a product at each stage of the supply chain. The “market” type of this quantity is the least amount of money somebody will pay for a product. Name this quantity that is similar to price and utility.

Answer: value

19. This country’s prime minister, who has an MBA from Northwestern and recently succeeded Sophie Wilmès [WIL-mess], is Alexander De Croo. He formed a government that ended a series of coalition governments that led this country from May 2019 to October 2020. This country, which is not a micro-state, has suffered the most deaths per capita from COVID-19, though some people claim that it is because this country does a better job counting nursing home deaths. In this country, French is the primary language in the south, while Dutch is the primary language in the north. Name this country that includes the Walloon Region, the Flemish Region, and the Capital Region at Brussels.

Answer: (Kingdom of) Belgium [or Royaume de Belgique or Koninkrijk België]

20. This lake’s southern shore is used for Camp Leroy Johnson, part of which is now the James H. Diamond U.S. Army Reserve Center. A bridge over this body of water called the causeway is the longest continuous bridge over water in the world; that bridge links the towns of Metairie [MET-uh-ree] and Mandeville [MAN-duh-vil]. This lake is between Lake Maurepas [maw-ree-pah] and Lake Borgne [born]. Water from this lake goes directly into Lake St. Catherine and the Rigolets [RIG-uh-leez]. This lake is near the Bayou Sauvage [suh-vazh] National Wildlife Refuge. This lake is just north of the Mississippi River delta and the city of New Orleans. Name this large lake in Louisiana.

Answer: Lake Pontchartrain

This is the end of the packet.