

Scobol Solo 2021

Replacement Packet

1. A bead test is a version of this procedure that incorporates borax. Before this test is performed, it is common to clean platinum wire with hydro-chloric acid, though sometimes nichrome [NY-krome] wire is used instead of platinum. To help ignore the effect of sodium, this test is sometimes viewed through cobalt glass. Elements can be identified through this test because different elements have different energy transitions. Name this test used to identify elements, especially metals, by observing their colors when they are heated.

Answer: flame test(ing)

2. Pierre-Simon Laplace [luh-plahss] used a ratio of specific heats to show why Isaac Newton's calculations for the speed of this phenomenon were off by 20%. Laplace's correction is now sometimes expressed using the elastic bulk modulus. Conventional super-conductivity was explained by interactions between electrons and the quasi-particle sometimes considered to be the quantized version of this phenomenon, which is called the phonon [FOH-nahn]. The ratio of the speed of an object to the speed of this phenomenon is the Mach ["mock"] number. Name this phenomenon whose intensity is often measured in decibels.

Answer: sound [accept noise; prompt on longitudinal waves]

3. Organisms in this division have an egg cell that is called a carpo-gonium [kar-poh-GOH-nee-um] and looks like it has a long hair. Though most coral reefs are built from the remains of animals, the coralline [KOR-uh-"line"] organisms in this division also contribute. Most species in this division are within the class Florideo-phyceae [flor-ID-ee-oh-FY-see-ee], whose cells are linked by pit connections. Organisms within this division are the source of the food dulse and the gelatinous substance agar. Name this division that contains the pigment phyco-erythrin [FY-koh-"AIR"-ith-rin], which absorbs blue light and is responsible for their unusual color.

Answer: red algae or Rhodophyta [prompt on algae]

4. This term describes coordinate systems in which the unit length is the same for all axes but the axes are not perpendicular. This term describes a cylinder if a segment connecting the centers of the opposite circles is not perpendicular to the circles, in contrast to right cylinders. This term is used to describe lines that intersect but do not form a right angle. Give this term used to describe asymptotes that are diagonal rather than horizontal or vertical.

Answer: oblique

5. The two large craters on this object are Karzok and Pangboche [pung-BOH-chay]. This object is larger than the three objects near it whose names include the terms “Ascraeus”, “Pavonis”, and “Arsia”. There is disagreement whether or not this object is part of the Tharsis region or west of it. This object was noticed in the 19th century because it could be seen during dust storms, and that observation was reinforced in the 20th century by the Mariner 9 spacecraft. This object is almost as tall as Rhea-silvia on Vesta, and it is almost three times taller than Mount Everest. Name this very large shield volcano on Mars.

Answer: Olympus Mons

Check the score.

6. This town contained America’s first psychiatric hospital, which was eventually renamed from Eastern Lunatic Asylum to Eastern State Hospital. This town was in an area originally named Middle Plantation, and it got its current name when it was chosen to be a colonial capital. The restoration of this town was funded in large part by John Rockefeller Jr. Much earlier, Thomas Jefferson—who went to college in this town—ended its use as a state capital. Name this location of the College of William & Mary that now contains a living museum of colonial history.

Answer: Williamsburg, Virginia

7. Two years after this document was written, a similar document supporting women was written whose last article begins “Property belongs to both sexes, united or separated.” This document states that “ignorance, neglect, or contempt of” its main subject “are the sole cause of public calamities and of the corruption of governments”. This document was drafted by Abbé Sieyès [ah-bee syee-yess] and the Marquis de Lafayette, and it was approved by the National Assembly on August 26, 1789. Name this document from revolutionary France that is analogous to the U.S. *Declaration of Independence*.

Answer: Declaration of the Rights of Man and of the Citizen [or Déclaration des droits de l’homme et du citoyen de 1789]

8. This country’s division during much of the 18th and 19th centuries is called the Era of the Princes, or Zemene Mesafint [ZEH-muh-nuh meh-SAH-fint]. This country was united by Lij Kasa Hailu, who eventually committed suicide during the Battle of Magdala to avoid British capture. That leader of this country was also known as Tewodros [TAY-oh-drohss] II. Later on, Zewditu [zoo-DEE-too], who became the first female leader of a well-recognized African country, led this country a few years after the death of her father Menelik [MEH-nuh-lik] II. She designated Ras Tafari as her successor, and he ruled this country as Haile Selassie [“highly” suh-LAH-see]. Name this country that used to include what is now Eritrea [air-ih-TREE-uh].

Answer: (Federal Democratic Republic of) Ethiopia

9. This person fought a duel with the Earl of Winchilsea [WIN-chull-see] after this person expanded Catholic rights, and soon after that, this person was succeeded by the Earl Grey. Earlier, when this person heard that his allies were defeated at the Battle of Ligny [lin-yee], he retreated from the Battle of Quatre Bras [KAH-truh brah] so he could prepare for a major battle that would be fought two days later. This person decisively won that battle with the help of the Earl of Uxbridge and Gebhard von Blücher, defeating Michel Ney [mee-shell neh]. Name this United Kingdom leader who ended the Hundred Days' War by defeating Napoleon at the Battle of Waterloo.

Answer: Arthur Wellesley, 1st Duke of Wellington [accept either underlined part]

10. A fictional terrorist cell in this state was led by Skip Wiley and called itself *Las Noches de Diciembre* [lahss NOH-chayss day dee-see-EM-bray]. That group is investigated by Brian Keyes, who works for one of this state's major newspapers in *Tourist Season*. Another novel set in this state is about Leafy's daughter, who is raised by Nanny and marries Logan Killicks. In another book set in this state, Jody Baxter takes care of the horse Flag near Volusia, which is near the city of Ocala [oh-KAL-uh]. Name this setting of *The Yearling* that is also the setting of books by Carl Hiaasen ["HI"-uh-sen] and of Zora Neale Hurston's *Their Eyes Were Watching God*.

Answer: Florida

Check the score.

11. The protagonist of this novel says "I cannot convey the sense of abominable desolation that hung over the world." That statement comes after a description of monstrous crab-like creatures. Toward the end of this novel, the Journalist fumbles for his watch, the Editor expresses doubt, and the Medical Man admits that he doesn't know the natural order of some flowers. The protagonist of this novel claims that the flowers were put in his pocket by Weena, who was killed in a fire with Morlocks. Name this H. G. Wells novel about a person who travels to the future.

Answer: *The Time Machine*

12. This novel opens with the statement "If you still try to defend the infamies and horrors perpetrated by that Antichrist. . . I will have nothing more to do with you and you are no longer my friend." That statement is made by this novel's character Anna Pavlovna Scherer to Prince Vasíli Kurágin. The second part of this novel begins with Vasily Dmitrich Denisov being rejected by Natasha Rostova. Much of this novel follows the Bezukhov and Bolkonsky families. Name this novel set during Napoleon's invasion of Russia that was written by Leo Tolstoy.

Answer: *War and Peace* [or *Voyna i mir*]

13. This poetry collection begins with the lines “Wake! For the Sun, who scattered into flight the Stars before him from the Field of Night, / drives Night along with them from Heaven.” The writer H. H. Munro derived the pen name “Saki” [SAH-kee] from a name used in this collection. A jewel-encrusted version of this book with drawings by Elihu Vedder sunk with the *Titanic*. A famous quote from this collection is “Here with a Loaf of Bread beneath the Bough, / a Flask of Wine, a Book of Verse — and Thou”. Name this collection translated into English by Edward FitzGerald and originally written in Persian by Omar Khayyam.

Answer: *Rubáiyát* [roo-bah-ee-AHT] of Omar Khayyam

14. In 1964, a work by this artist was made into a jigsaw puzzle that was billed as “the world’s most difficult puzzle”. That work, which started out as black and white but which this artist eventually made colorful, is *Convergence*. The body of one person looks like a chalkboard in this person’s early work *Male and Female*. There is some debate as to whether or not there are references to Romulus and Remus in this artist’s painting *The She-Wolf*. This artist’s development of action painting was central to abstract expressionism. Name this artist who created works such as *Blue Poles* and *Lavender Mist* using drip painting.

Answer: (Paul) Jackson Pollock

15. This composer changed his mind about a one-movement work he originally called *Fantasia sinfonica No. 1*; it is now known as his seventh symphony. A piece this composer originally wrote for his brother-in-law’s play was adapted by him to become *Valse triste* [VAHL-suh treest]. A tone poem by this composer uses an English horn as the voice of the title bird. Another tone poem by this composer became the national anthem of Biafra but was commonly used as a patriotic song in his own country. Name this composer of *The Swan of Tuonela* and *Finlandia*.

Answer: Jean Sibelius [or Johan Julius Christian Sibelius]

Check the score.

16. This musician formed a band including guitarists Bern Nix and Charles Ellerbe, called Prime Time. That group of musicians referenced this musician’s *Skies of America* to record “Theme from a Symphony” on the album *Dancing in Your Head*. This musician worked with the trumpeter Don Cherry to record a 1959 album that includes the songs “Focus on Sanity” and “Lonely Woman”. That album and its follow-up, *Change of the Century*, made this saxophonist a leader in free jazz. Name this lead musician on the album *The Shape of Jazz to Come*.

Answer: (Randolph Denard) Ornette Coleman

17. This religion has short, medium, and long obligatory prayers, and adherents are supposed to say at least one of them each day. This religion marks the new year at the vernal equinox, and adherents are supposed to engage in a sunrise-to-sunset fast for the 19 days leading up to the new year. This religion was started by a person claiming to be a messenger of God and a person claiming to be “He whom God shall make manifest” in the 19th century in Persia. Name this religion that was led for many years by Shoghi Effendi and that has eight continental temples, one of which is in Wilmette, Illinois.
Answer: Bahá'í(ism)

18. This person’s best-known book was written with Arthur Cruttenden Mace, who retired due to poor health at age 49 and died four years later. Soon after this person’s biggest success, his canary was eaten by a cobra and his sponsor, Lord Carnarvon, died from a mosquito bite that turned into blood poisoning. This person’s big success was in 1922, starting when his water-boy found a flight of steps. This person’s findings from the Valley of the Kings are the most popular items at the Grand Egyptian Museum. Name this archaeologist who found the tomb of King Tutankhamun [too-tun-KAH-men].
Answer: Howard Carter

19. NASA makes these objects out of Tefzel ETFE instead of plastic nylon, which is what most manufacturers use. Diane Vargo, the principal at Mesquite Elementary School in Arizona, was threatened by three men carrying these objects in September 2021 after one of the men’s sons was placed in quarantine. Larry Rendell Brock and Eric Gavelek Munchel carried these objects in the U.S. Senate chamber on January 6, 2021, which some people have interpreted as an attempt to make citizen’s arrests of senators. Name this type of fastener that can be used for electrical wires and as handcuffs.
Answer: zip ties [accept zip-tie handcuffs or cable ties; prompt on (plastic) handcuffs]

20. The creek named for these trees goes by the Bald Hills. One tree of this type is called the Chandelier Tree because of its branch formations and is famous because of work done on it by the appropriately-named Underwood family. Many of these trees are at the Prairie Creek and Jedediah Smith State Parks, which are near the national park named for these trees, and others are at Del Norte [del nort] Coast. These trees are very similar to sequoias but are thinner and taller. Name these California trees that are the tallest trees in the world.
Answer: coast redwood trees or coast redwoods [accept *Sequoia sempervirens*; prompt on sequoias; do not prompt on “giant sequoia(s)”]

This is the end of the packet.