

Scobol Solo 2016

Replacement Packet



1. This unit is multiplied by meters and divided by amperes to measure the vacuum permeability as $4\pi \times 10^{-7}$ ["4 pi times 10 to the negative-seventh power"]. This unit is derived by dividing newtons by coulomb-meters per second, because it is the SI unit measuring the force produced by a moving charge. This measure of flux density is equal to a weber per square meter, and it is equal to 10,000 gauss in the CGS system. Identify this unit used to measure magnetic fields, named for a person who developed an induction motor and pushed for the adoption of alternating currents after his homeland, which is now Croatia.

Answer: teslas

2. This compound is defined as having a score of -12 for the Hammett function. This compound is synthesized in a process that uses vanadium [vuh-NAY-dee-um] oxide pellets for catalysis [kuh-TAL-uh-siss]. High concentrations of this substance can form oleum. The lead chamber processes and contact processes are industrial methods to produce this substance. Its conjugate base is di-sulfate. This di-protic compound is formed by reacting water with sulfur tri-oxide. The conversion of sulfur dioxide to this compound is a major cause of acid rain. Name this strong acid whose formula is H_2SO_4 .

Answer: sulfuric acid [accept H_2SO_4 before the end]

3. This condition is the primary condition treated by DMARDs ["D"-mardz], and blood tests for characterizing it often look for ccp antibody and c-reactive protein. Psoriasis ["sore-EYE"-uh-siss] is often accompanied by this condition. TNF-alpha inhibitors such as ad-a-lim-u-mab [ad-uh-LIM-oo-mab] can be used to treat this condition, whose namesake factor is an IgM [I-G-M] molecule that targets IgG [I-G-G]. This condition occurs due to an autoimmune response towards synovial membranes, and can result in the swan's neck deformity. Name this autoimmune form of arthritis.joints.

Answer: rheumatoid arthritis [prompt on arthritis before the end; accept just rheumatoid after the end]

4. One of the coordinates of this point equals the opposite of the discriminant divided by 4 times the coefficient of the highest-order term, while the other coordinate equals the opposite of the middle coefficient over twice the highest-order coefficient; in conventional notation, that's the opposite of the discriminant over $4a$ and $\frac{-b}{2a}$ ["the opposite of b over $2a$ "]. In a shape those eccentricity is 1, this point is halfway between the focus and the directrix. If you have a quadratic equation in standard form, a form named for this point can be achieved by completing the square. This is the point at which a parabola crosses its axis of symmetry. Name this point that is the lowest point on an upward-opening parabola, or the highest point on a downward-opening parabola.

Answer: vertex of a parabola [or vertices of parabolas]

5. Measures from a U.S.-German observatory released in 2016 claimed that the temperature of this star's atmosphere is much lower than earlier measurements, raising questions about how it sheds mass. An arc around this star is expected to hit a dust bar in about 5,000 years, with the star itself hitting the dust a few thousand years later. This is the brightest Class M star in the night sky, and it is located close to Antares [an-TAIR-eez] on a Hertzsprung-Russell diagram. This star is the brightest red supergiant. This star is at Orion's right shoulder. Name this star that is Orion's alpha star even though it is usually not as bright as Rigel ["RYE-gel"].

Answer: Betelgeuse ["beetle-juice"]

6. In 1889, this person wrote "The problem of our age is the proper administration of wealth" in an article for *North American Review*. This person financed the construction of the Peace Palace that now houses the International Court of Justice in The Hague. He stated "The man who dies thus rich dies disgraced" a few years after J.P. Morgan called him "the richest man in the world". This writer of the essay "The Gospel of Wealth" funded many libraries that are now named for him, and he also funded a school that merged with the Mellon Institute in Pittsburgh. Name this steel industrialist.

Answer: Andrew Carnegie

7. 25 years after stepping down from being Prime Minister, this person became President of the Chamber of Deputies when he lost a presidential election to Luigi Einaudi [loo-EE-jee ay-"NOW"-dee]. This person became prime minister after his country's defeat at the Battle of Caporetto led to the collapse of the government of Paolo Boselli. This person was nicknamed "The Weeper" after he was upset about not gaining control of Fiume [FYOO-may]. He temporarily left politics during the Matteoti [mat-tay-OH-tee] Crisis, which ended his support of Benito Mussolini. Name this Italian Prime Minister who clashed with Georges Clemenceau [zhorzh klem-en-soh] and Woodrow Wilson while negotiating the Treaty of Versailles [vair-"sigh"].

Answer: Vittorio (Emanuele) Orlando

8. An ancient ruler of what is now this country was believed to have kept her power by repeatedly poisoning her husbands, and was named Anula of Anu-rad-ha-pura. A more recent female head of this country is Siri-mavo Banda-ra-naïke, who headed its Freedom Party. This country was divided when the three sons of Vijay-a-bahu VII killed their father and divided up the Kingdom of Kotte [KOH-tay], creating the Kingdom of Kandy in the process. This country underwent a long civil war starting in 1983, during which President Rana-singhe Prema-dasa was assassinated by Tamil separatists. Name this island country that in 1972 changed its name from Ceylon [say-LON].

Answer: Sri Lanka [prompt on Ceylon before it is mentioned]

9. This leader's troops used howitzers before entering Queue-du-Bois [kyoo-doo-bwah] during the Battle of Liège [lee-ezh] while he was under the command of Otto von Emmich [EM-ik]. This person devised the plan to encircle the Narew [NAR-ev] Army that was fighting with the Russians while he was second in command during the Battle of Tannenberg. This person argued that he deserved credit for Germany's success when he was a very unsuccessful presidential candidate in 1925. He resigned before the end of World War I because he did not think Germany should consider the peace conditions they were offered. Name this general who developed a rivalry with Paul von Hindenburg.

Answer: Erich (Friedrich Wilhelm) Ludendorff

10. A doctor in this novel has a temperature that is always 96.8 and worries about the Pacific Ocean, which is surrounded by elephant-i-asis. That doctor in this novel wants the orderlies Gus and Wes to declare him ill, and made a transparent eyepatch for a man who spends a lot of time playing horseshoes, Major de Coverley. The protagonist of this novel has liver pain just short of jaundice, and is haunted by the death of Snowden. This novel set on Pianosa [pee-uh-NOH-suh] during World War II addresses the issue of avoiding war service by declaring insanity. Name this novel about Yossarian by Joseph Heller.

Answer: Catch-22

11. One character in this novel is an Irish playwright whose works are popular in America but who is seen as phony in England. In this novel, the protagonist and her sister Hilda are the daughters of a Royal Academy painter named Malcolm. This novel begins "Ours is essentially a tragic age", and then says the protagonist's husband was shipped to England "more or less in bits" after fighting in Flanders in World War I. Much of this novel is set on an estate named Wragby. While he grows closer to Mrs. Bolton, Connie has an affair with the gamekeeper Oliver Mellors. Name this novel by D. H. Lawrence.

Answer: Lady Chatterley's Lover

12. In this novel, the Structural Formations style is developed by the artist Lankes. Near the beginning of this book, the narrator describes his grandmother Anna working near a potato field, and he often describes her as smelling like rancid butter. The narrator of this novel takes very unusual steps to avoid the grocery business. In this novel, the narrator considers himself to have two fathers — a Pole who dies at the beginning of World War II, and a Nazi. That narrator of this novel can shatter glass with his shriek and can control his own height. Name this novel set in Danzig [DAHNT-sik] about a man who stopped growing at the age of three named Oskar Matzerath, written by Günter Grass.

Answer: *The Tin Drum* [or *Die Blechtrommel*]

13. This poet wrote “that’s all there is to it” at the end of his poem “A Dog Has Died”. He wrote about everybody putting their old possessions into a sack and carrying them to the sea to let them sink in his “Ode to Broken Things”. One of this writer’s collections includes “Ah Vastness of Pines”, “The Light Wraps You”, and “Body of a Woman”. Another collection by this poet has 15 sections describing the history of the Western Hemisphere, is called *Canto General* [KAHN-toh hay-nay-RAHL], and includes *The Heights of Macchu Picchu*. Name this Chilean poet who wrote *Twenty Love Poems and a Song of Despair*.

Answer: Pablo Neruda [or Ricardo Eliécer Neftalí Reyes Basoalto]

14. One painting by this artist has three ghost-like figures on the bottom, possibly kneeling and facing away from the canvas. That work shows a fireworks display and is nicknamed *The Falling Rocket*. That work was described as “flinging a pot of paint in the public’s face”, leading this painter to John Ruskin for libel. This painter of *Nocturne in Black and Gold* created a side view of Thomas Carlyle, which is similar to this artist’s painting of a woman with her feet on a small stool, seated by a picture. Name this American-born English painter whose *Arrangement in Grey and Black Number One* shows his mother.

Answer: James Abbott McNeill Whistler

15. This composer revised his third symphony after he found it too dry and Alexander Borodin and Pyotr Tchaikovsky also criticized it. This composer changed his second symphony into a symphonic suite, and it is now named for a character considered the enemy of all mankind, Antar. One of this composer’s pieces contains a “Scene and gypsy song” as a fourth movement, returns to an Alborada theme, and is based on Spanish folk melodies. Another piece by this composer is based on Russian Orthodox liturgy, and another is based on *One Thousand and One Nights*. Name this composer of *Capriccio Espagnol* [kah-PREET-choh es-pahn-YOHL], the *Russian Easter Festival Overture*, and *Scheherazade*.

Answer: Nikolai (Andreyevich) Rimsky-Korsakov

16. Coins portraying this statue show it holding an eagle in the main figure's right hand, though several descriptions claimed that it held Nike. This statue's left hand held a scepter with an eagle on top. A coin showing only the head of this statue was minted by the Eleans [EE-lee-unz]. Caligula requested that this sculpture be brought to Rome and that its head be replaced with his own. This statue was located in the region where the Olympic Games were held, and was created by the same person who made the statue of Athena in the Parthenon, Phidias [FID-ee-uss]. Name this statue, one of the Seven Wonders of the Ancient World, which was located at Olympia and depicted the king of the Greek gods.

Answer: Statue of Zeus at Olympia

17. These buildings have gathering areas with pillars that in some countries are called *pen-do-pos* or *mandats*. Those areas, more commonly called *man-da-pas*, pass through entrance towers called *go-pu-rams* that — when viewed from the top — look like representations of the universe, called *mandalas*. These buildings are supposed to be near water, and domes on them represent the mythical Mount Meru. When first constructed, Angkor Wat was one of these buildings. Name these buildings whose innermost rooms are sometimes only visited by priests, and which are typically dedicated to a god such as Shiva or Vishnu.

Answer: Hindu temples [or Hindu shrines or mandir; prompt on temples or shrines]

18. This person wrote “He who makes an attempt to enslave me, thereby puts himself into a state of war with me.” This person criticized the argument that the Biblical Adam had a title to sovereignty that was passed down, a claim which had been made in *Patriarcha* by Robert Filmer. Some Anglican clergy criticized this thinker's permissive attitude towards Catholicism after the publication of *A Letter Concerning Toleration*. Anthony Ashley Cooper and this person wrote those tolerant views into the *Fundamental Constitutions of Carolina*. Name this English philosopher who wrote *Two Treatises of Government*.

Answer: John Locke

19. In 2016, this country threatened to file a lawsuit against a British supermarket chain that shares its name. This country replaced its prime minister in April 2016 when his ownership stake in Wintris became known from the release of the Panama Papers. In a 2016 presidential election, this country elected a historian who has written about this country's disputes with the United Kingdom during the Cod Wars. In that election, President Guðni Jóhannesson [GUTH-nee YOH-hah-neh-sun] replaced President Ólafur Grímsson [OH-lah-fur kreem-sawn]. This country's parliament, the oldest national parliament in the world, is the Althing. Name this country in the North Atlantic whose capital is Reykjavík [“RAKE”-yuh-vik].

Answer: (Republic of) Iceland [or (Lydveldid) Ísland]



20. The mother of a baseball hall-of-famer is the namesake of this city's Carrie Murray Nature Center, which is on land donated by Shepard A. Leakin to expand this city's Gwynns Falls Park. The oldest home in this city, the Robert Long House, now houses the Fell's Point Preservation Society; Fell's Point is across the Patapsco River from Federal Hill, which houses this city's American Visionary Art Museum. The Preakness Stakes, part of horse racing's Triple Crown, is run at Pimlico Race Course in this city. This city was protected by Fort McHenry. Name this home of Johns Hopkins University, the most populous city in Maryland.

Answer: Baltimore, Maryland

This is the end of the packet.