

Scobol Solo 2019

Championship II (Phase II: Questions 21-40)



21. One type of this shape is generated by the equation " $(x^2+y^2)^3 = (x^2-y^2)^2$ " and is called a quadrifolium. If k is the size parameter of this shape, then its area equals $\frac{1}{2}\pi k^2$ ["1/2 pi k squared"] if the other parameter is even, and $\frac{1}{4}\pi k^2$ ["1/4 pi k squared"] if the other parameter is odd. To generate this shape in polar coordinates you need theta to go up to π or 2π depending on whether the other parameter is even or odd. Name this shape generated by the equation " $r = k \sin(n\theta)$ " ["r equals k sine n theta"], in which that other parameter, n , determines the number of leaves.

Answer: rose [accept quadrifolium before it is mentioned]

22. The Muktika lists itself as the 108th and last of these texts, though most lists of these texts are longer. The first of these texts in that list is the Isha, which distinguishes between the study of Vidya, which is real knowledge, and Avidya. However, it is believed that several of these texts, including the Brihadaranyaka [bree-huh-duh-rah-n-YAH-kuh], were written before the Isha. These texts follow, but do not include, a Samhita, Brahmana, and Aranyaka. The collective name of these texts means "connection", though it is sometimes translated as "session". Name these texts that are a major part of the Vedanta, meaning that they are found at the end of Vedas.

Answer: Upanishads

23. Actions that took place under this foreign president were the basis of the *Filártiga v. Peña-Irala* [fee-LAR-tee-gah "vee" PEN-yah ee-RAH-lah] decision allowing the U.S. to punish torturers who act in foreign countries. This person led a coup that placed Tomás Romero Pereira [toh-MAHSS roh-MEH-roh peh-RAY-rah] in power for three months, leading to a presidential election in which this person was the only candidate. Many years later, this person closed all currency exchanges, leading to a coup against him led by Andrés Rodríguez. For much of this person's presidency, all government employees needed to be members of the Colorado [koh-loh-RAH-doh] Party. Name this person who from 1954 to 1989 was the president of Paraguay.

Answer: Alfredo Stroessner (Matiauda)

24. Some of this writer's poetry was inspired by his love for Penelope Blount, who for a time was married to Robert Rich. This person said that if you hate poetry, then "Your memory [should] die from the earth for want of an epitaph." This person's defense of poetry begins with him being taught horsemanship by John Pietro Pugliano [pool-YAH-noh] along with Edward Wotton. The first part of a poem by this writer ends with his muse saying "Fool, look in thy heart, and write." In that work, this person wrote 108 sonnets and 11 songs about characters whose names mean "star-lover" and "star". Name this English poet who wrote *Astrophel and Stella*.

Answer: Philip Sidney

25. Poisson's [pwah-sawn'z] ratio is approximated as $\frac{1}{2}$ minus this quantity divided by the quantity 6 times the bulk modulus. The modulus of resilience equals half the yield strength squared divided by this quantity. Unlike the constant in Hooke's law, this quantity depends only on the material, not on shape or width. This quantity equals force times original length divided by the quantity cross-sectional area times change in length. Identify this quantity that measures the resistance of an object to longitudinal stress and which is named for a scientist who demonstrated the wave nature of light.

Answer: Young's modulus [prompt on modulus of elasticity or elastic modulus or modulus]

26. This person worked closely with Wilhelm Dörpfeld [VIL-helm DORP-felt] at Tiryns [TIR-inz] before Dörpfeld worked on the Acropolis [uh-KRAH-puh-liss]. After conversations with Frank Calvert, this archaeologist was inspired to explore the town of Hisarlik [hiss-AR-lik], and he found jewels about a thousand years older than the ones he was looking for. This person found bodies buried with lots of treasure, and he thought he had found Agamemnon [ag-uh-MEM-nahn] and Clytemnestra [kly-tem-NESS-truh]. This person wanted to find ancient Troy, but he may have blown some of it up instead. Name this person who excavated an area around the Lion Gate that was the entrance to Mycenae [my-SEE-nee].

Answer: (Johann) Heinrich Schliemann [SHLEE-mahn]

27. Themes by this composer inspired a J. S. Bach fugue [fyoog] in A major and a fugue in B minor. Much of this composer's vocal work was lost during World War II because it was stored in the Dresden State Library, though he spent almost his entire life in Venice. This composer's *12 Concerti a cinque* [kohn-"CHAIR"-tee ah CHEEN-kway] includes his *Concerto for oboe in D minor*, and this composer may be the first Italian to use the oboe as a solo instrument. What was believed to be this composer's most famous piece was actually written by his biographer Remo Giazotto [RAY-moh jah-ZOHT-toh]. Name this 18th-century Venetian composer who did not actually write *Adagio in G minor*.

Answer: Tomaso (Giovanni) Albinoni [ahl-bee-NOH-nee]

28. During the Civil War, this person was the chair of the House Ways and Means Committee. This person introduced a House concurrent resolution that created the U.S. Congress Joint Committee on Reconstruction in 1865. A few years later, this person and John Bingham introduced the House resolution that led to the impeachment of Andrew Johnson. This politician started his career in the Pennsylvania legislature as a member of the Anti-Masonic Party before becoming a Whig and then a Republican in the U.S. House. Name this House leader of the Radical Republicans.

Answer: Thaddeus Stevens

29. One of the characters in this novel allows some girls in his hotel room after being asked “Kwee wave off your porch?”. The girl waves at Charlie, a sailor who is leaving, after Tommy Barban lets her in. This novel’s protagonist is thrown in an Italian jail after arguing with a taxi driver and then punching a person at the police station. This novel, which opens in the French Riviera, is about an unsuccessful marriage between a psychiatrist and a mental patient. Name this work about Dick and Nicole Driver, the final completed novel by F. Scott Fitzgerald.

Answer: *Tender is the Night*

30. The three largest of these objects in terms of area are the Kuko, Suiko, and Pallada [*pah-lah-dah*]. A very tall example of these objects on the Azores Plateau is named “Great Meteor”. The tops of these objects must be at least 200 meters in diameter. The shapes of these objects are likely due to them having once been an island before being moved by seafloor spreading, or due to volcanic origin. Their shape is also caused by erosion due to ocean water, which can take away land from the top of an object. Name these flat-topped sea-mounts.

Answer: guyots [*gee-yohz*] [accept table-mounts; prompt on sea-mounts]

31. The person who led this country from 2007 to 2017 now lives in Belgium, his wife’s home country; he faces an arrest warrant and is calling this country’s current leader a traitor. This country’s indigenous confederation Conaie [*koh-NY-ay*], which is led by Jaime [*“HI”-may*] Vargas, captured police officers during 2019 protests. A recent crisis in this country was sparked by the removal of fuel subsidies, leading to protests that forced the government to temporarily relocate. Name this country, formerly led by Rafael Correa and currently led by Lenín Moreno, that recently moved its government to Guayaquil [*“guy”-ah-KEEL*] from Quito [*KEE-toh*].

Answer: (Republic of) Ecuador [or (República del) Ecuador]

32. This person was the third of four popes to reign at the same time as Antipope Clement III, following the short reign of Victor III. This pope supported Hugh of Die's [dee'z] excommunication of Philip I of France due to the king's remarriage. This pope also supported a request for troops to support Byzantine emperor Alexius I Comnenus [uh-LEK-see-uss "the first" kum-NEN-uss], saying "God wills it!". That speech at the Council of Clermont was a call for all Christians to fight Muslims, and it led to Godfrey of Bouillon establishing the Kingdom of Jerusalem in 1099. Name this pope who supported the First Crusade.

Answer: Pope Urban II [prompt on Urban; accept Odo of Châtillon or Otho de Lagery]

33. Dizzy Gillespie and Max Roach were young musicians in 1944 when they helped this musician record the song "Disorder at the Border". A well-known compilation of this musician's songs begins with his compositions "Meet Doctor Foo" and "Fine Dinner". He is generally considered the first major jazz saxophonist, having used a saxophone to play parts written for tubas in Fletcher Henderson's band in the 1920s. This musician's fiery style on swing songs was often contrasted with Lester Young's style. In 1939, this person made a historic recording of the song "Body and Soul". Identify this musician whose nickname, which was a shortened version of his last name, is a type of bird.

Answer: Coleman (Randolph) "Hawk" Hawkins

34. The man in this story has a large pimple on his right cheek, and the woman in this story carries a pine torch that she sometimes wedges between floorboards. The man wears blue and the woman wears yellow until the end of this story, when the man says "Then it's right if I rob you. I'd starve if I didn't." This story is named for the southern gate of Kyoto, and the Akira Kurosawa movie named for this story is actually based more on the same author's "In a Grove". Name this short story about a woman who steals hair from corpses to make wigs, written by Ryunosuke Akutagawa [ree-oo-noh-soo-keh ah-koo-tah-gah-way].

Answer: "Rashomon"

35. This Canadian province contains W. A. C. Bennett Dam, which creates Williston Lake. This province is also the location of Craigellachie [krug-EL-uh-kee], where the last spike of the Canadian Transcontinental Railroad was driven in. Glaciers carved out Okanagan [oh-kuh-NAH-gun] Lake, which is where this province's city of Kelowna is. This province also contains Mount Waddington, Mount Robson, and the eastern part of Mount Fairweather. Many tourists go to Butchart Gardens in Brentwood Bay, which is on the island that contains this province's capital. Name this province whose most populous city is Vancouver and whose capital is Victoria.

Answer: British Columbia

36. The natural log of the quotient “this quantity divided by pressure” equals the integral of the difference of two volumes divided by the quantity ideal gas constant times temperature, where the ratio of those two volumes is the compressibility factor. This quantity is found by determining the pressure when the Gibbs free energy of a gas equals what it would be for an ideal gas. This quantity equals pressure for an ideal gas. A system is in equilibrium when this quantity of one state for a given temperature and pressure equals this quantity of another state. Name this tendency of a molecule to escape its phase.

Answer: fugacity [“few-GAS”-ih-tee]

37. The bottom right corner of one painting by this artist depicts a baby suckling from its mother, though the baby is next to the mother rather than in her lap. In the bottom left corner of that painting, a soldier holds a pike that is taller than him. One work by this painter shows Madonna and child on a throne between St. Francis and St. Nicasius [nih-KAY-zhuss]; that painting is in a cathedral in this artist’s original hometown, Castel-franco. Another painting by this artist of *The Tempest* may have been finished by Titian [TEE-shun] and is considered the inspiration for Titian’s *Venus de Urbino*. Name this Venetian Renaissance painter of *Sleeping Venus*.

Answer: Giorgione [jor-JOH-nay] [or Giorgio Barbarelli da Castelfranco]

38. One novel by this writer is set at 43 Old Mill Road, a house in London that is slated for demolition and attracts members of the Communist Centre Union. In that novel, this author had Jasper and Bert offer support to the IRA and KGB. In addition to that novel about Alice Mellings, this author wrote a novel in which Cy Maitland is a surgeon who cuts brains in half. That novel is about Anna Wulf’s attempt to combine four stories into one. This author was born in Persia and lived in Southern Rhodesia before moving to England. Name this author of *The Good Terrorist* and *The Golden Notebook*.

Answer: Doris (May) Lessing [accept Doris (May) Tayler]

39. A conversation on this person’s 75th birthday is the only private recording of Adolf Hitler. While serving as his country’s Commander-in-Chief, this person prevented his country from signing the Tripartite Pact, but his army worked with the Nazis during the Continuation War, at the end of which this person became his country’s president. At the same time as World War I, this person led the victorious Whites in a Civil War against the Bolsheviks. The Soviet Union was halted at a line named for this person during the Winter War. Name this leader considered the father of modern Finland.

Answer: Carl Gustaf Emil Mannerheim [MAH-nur-hym]

40. This compound combines with bi-carbonate to form a molecule that is similar to malonic [muh-LAH-nik] acid and is used in fatty acid synthesis. The amino acids leucine [LOO-seen] and lysine ["LIE"-seen] can be degraded into this compound, so they are classified as keto-genic [KEE-toh-JEN-ik]. Two molecules of this compound are combined to each other by thiolase ["THIGH-oh-lace"] in the upper mevalonate [muh-VAL-uh-nayt] pathway. This compound is produced with NADH, hydrogen ions, and carbon dioxide by the oxidative de-carboxyl-ation ["OX-uh-date"-iv dee-"car-box"-ih-LAY-shun] of pyruvic ["pie"-ROO-vik] acid. This compound combines with oxalo-acetate ["OX-uh-low" ASS-ih-tayt] to form citrate ["SIT-rate"]. Name this thio-ester ["THIGH-oh-ester"] that is oxidized to form ATP and carbon dioxide in the citric acid cycle.

Answer: acetyl-CoA or acetyl coenzyme A

This is the end of the packet.