

Scobol Solo 2020

Championship II (Phase II: Questions 21-40)



21. One of the politicians during this dynasty, Yan Liben, is now remembered more for his paintings. Many of his paintings glorify Li Shimin, who was the second leader of this dynasty and one of many Chinese leaders to take the name “Emperor Taizong”. Taizong worked with his father Emperor Gaozu to establish this dynasty and later gained power after killing his brothers at the Xuanwu [shyoo-AHN-woo] Gate Incident. Some historians believe that Wu Zetian [WOO zayt-YEN] came to power by strangling her daughter and framing her rivals for murder; her reign is sometimes considered an interregnum from this dynasty. Name this 7th- to 10th-century dynasty, between the Sui dynasty and the Five Dynasties and Ten Kingdoms period.

Answer: Tang dynasty

22. The first stanza of this poem ends “Fierce wars and faithful loves shall moralize my song.” The first book of this poem involves a rivalry between Duessa and Una. This was the first poem written in nine-line stanzas, with the first eight lines in iambic pentameter [“eye”-AM-bik pen-TAM-ih-tur] and the last line being an alexandrine [al-ek-SAN-dreen] in iambic hexameter. This poem’s title character is Gloriana, who is commonly interpreted as representing Queen Elizabeth I, to whom this poem was presented. Name this extremely long poem by Edmund Spenser.

Answer: *The Faerie Queene*

23. This compound is generated along with oxalo-acetate [“OX-uh-low-ASS-it-ate”] and hydrogen ions when malate de-hydrogenase [MAL-ayt dee-“hi”-DRAH-jun-“ace”] catalyzes malate [MAL-ayt]. Fatty acid synthesis uses two molecules of this compound for each molecule of acetate, and during that process this compound is the reducing agent. This compound is generated along with pentoses [PEN-toh-siss] and ribose 5-phosphate in the pentose phosphate pathway. This compound works with ATP, carbon dioxide, and hydrogen ions during the Calvin cycle. Name this compound that, like ATP, is a product of the light-dependent reactions of photosynthesis.

Answer: NADPH or NADP+ or TPN or Nicotinamide adenine dinucleotide phosphate [do not prompt on “NADP”]

24. A painting similar to this completed painting, but with more color and with only two-thirds of the title, was painted by Torben Giehler. This completed painting is named in part for a type of popular music, and it was inspired in part by its artist’s move from Europe to New York City. This painting displays several traits of neo-plasti-cism despite its lack of any black color and the fact that its lines contain many colorful squares. Those squares are often thought of as representing car traffic, and they are red, yellow, and blue. Name this painting by the 20th-century Dutch artist Piet Mondrian [peet MAWN-dree-ahn].

Answer: Broadway Boogie Woogie

25. Other than people born into it, people were only allowed to join this religion between 1017 and 1043 CE. Because that period—the Divine Call—began on a Thursday, members of this religion usually worship on Thursday nights. A small number of people in this religion are classified as “knowers”, giving them full access to its texts and services. This religion began with people who revered Al-Hakim bi-Amr Allah, though the name of this religion is based on one of his followers who is no longer revered. Name this religion that follows the Epistles of Wisdom and whose primary sanctuary, the Khalwat al-Bayada, is in Lebanon.

Answer: Druze

26. This person’s statements about white women were heavily criticized by Woman’s Christian Temperance Union founder Frances Willard. This person addressed those criticisms in *The Red Book*, which otherwise is focused on listing incidents. This person, who worked closely with J. L. Fleming at the *Free Speech and Headlight* newspaper in Memphis, wrote about the mob killing of Thomas Moss. This person then wrote the pamphlet *Southern Horrors* and started working for the first Black newspaper in Chicago, which was owned by her husband. Name this journalist who researched lynchings.

Answer: Ida B(ell) Wells(-Barnett)

27. A novel by this author depicts an adventure by Terry O. Nicholson, Jeff Margrave, and Van Jennings. In that novel, which is sometimes placed in a trilogy with *Moving the Mountain* and *With Her in Ourland*, this author wrote about an all-female society. A short story by this author is narrated by a woman whose husband John is a doctor who is unable to realize that she is sick. This author ended that story with the narrator crawling around a room where her husband has fainted. Name this 19th- and 20th-century American author of *Herland* and “The Yellow Wallpaper”.

Answer: Charlotte Perkins Gilman [accept either underlined part; accept Charlotte Perkins Stetson]

28. This person came up with a set of hydro-dynamic equations that can be generated by differentiating the Schrödinger [SHRAY-din-gur] equation and separating the real and imaginary components. A “constant” named for this person is used to determine the electro-static potential of a single ion in a crystal by approximating ions as point charges. A “rule” named for this person is sometimes called the Janet rule or Klechkowsky [kleh-KAWFF-skee] rule, and it is used to supplement the Aufbau principle. Identify this German scientist whose namesake rule states that orbitals are filled in the order of increasing $n + \ell$, with ties being broken by the lowest n , where n and ℓ represent the first two quantum numbers.

Answer: Erwin Madelung

29. One book by this writer concludes “We are absolutely free today if we choose to will our existence in its finiteness, a finiteness which is open on the infinite.” Another book by this writer states “If truth be told, one is not born, but becomes, a genius” and then states that for some people, becoming a genius is impossible. Another book by this writer begins “Woman? Very simple, say those who like simple answers.” This person also wrote in the same book “One is not born, but rather becomes, a woman.” Many of this writer’s books, including *The Ethics of Ambiguity*, built on the works of Jean-Paul Sartre [zhahn pawl sart-r’], with whom she had a well-known relationship. Name this author of *The Second Sex*.

Answer: Simone de Beauvoir [see-mohn d’ bohv-war]

30. In one opera by this composer, Cupid wakes the Cold Genius during the Frost Scene, eventually leading to a chorus singing, “’Tis Love that has warm’d us”. In another opera by this composer, the female lead sings “When I am laid in earth”, which is commonly referred to as her “lament”. This composer wrote the *Abdelazer* suite, whose “Rondeau” [rahn-doh] second movement was used by Benjamin Britten as the theme in *The Young Person’s Guide to the Orchestra*. This composer’s *Funeral Sentences* was written for Queen Mary II of England. Name this 17th-century English composer of *King Arthur* and *Dido and Aeneas* [“DIE-doe and” uh-NEE-uss].

Answer: Henry Purcell

Check the score.

31. For most of the 19th century, members of this royal house held the title Grand Duke of Luxembourg. Because Luxembourg did not allow female leaders, this royal house lost that title in 1890 when its leadership passed to Wilhelmina. This royal house was linked to the Stuart royals when Mary, Princess Royal—who was the daughter of Charles I—married into it. Her son married the daughter of James II, who was also a Stuart and also named Mary. Name this royal house that still controls the monarchy in The Netherlands and which included King William III of England, who gained power during the Glorious Revolution.

Answer: Orange-Nassau [prompt on Nassau]

32. This type of function can be used to approximate a Heaviside [“heavy-side”] step function by using a large steepness factor or growth rate. A difference equation whose right side is the same as the right side of the differential equation for this function is used to create bifurcation diagrams that demonstrate chaotic behavior. This type of function solves the differential equation $\frac{df}{dt} = f - f^2$ [“d f d t equals f minus f squared”]. This function can be expressed as the reciprocal of the quantity 1 plus an exponential function. Name this function used to model populations that are limited by a carrying capacity.

Answer: logistic function [or sigmoid function]

33. In the first chapter of this novel, the title character states “There is no God that governs the earth righteously, but a God of lies, that bears witness against the innocent.” Later in this novel, a character nicknamed Dunsey is described as someone “who seemed to enjoy his drink the more when other people went dry”. Dunsey steals two bags of gold from this novel’s title character, and years later his body is found with that gold. After Molly Farren dies, this novel’s title character raises her daughter, Eppie. Name this George Eliot novel set in Lantern Yard and Raveloe.

Answer: Silas Marner(: *The Weaver of Raveloe*)

34. Over the last several years, floods from this river have caused problems in the Chókwè District. The Shashe [SHAH-shay] River is a tributary of this river, and this river eventually joins with the Olifants River. This river starts at the confluence of the Marico and Crocodile Rivers. This river shares its name with the northernmost province in South Africa. Its water flows past the town of Xai-Xai [shy shy] before entering the Indian Ocean farther south than the Zambezi. Name this river that separates South Africa from Botswana and Zimbabwe and goes through Mozambique.

Answer: Limpopo River

35. This composer used a lot of 0-1-4 tri-chords in a three-movement concerto whose second movement is called “Sehr langsam [LAHNG-sahm]”. That piece was written in 1934, before this composer’s career was ruined by the Nazis, despite his German nationalism, and he was killed by an American soldier. This composer’s only symphony lasts about 10 minutes, with a first movement whose two parts are both repeated and a second movement that is a set of variations. Name this composer of *Concerto for Nine Instruments* who was a colleague of Alban Berg and student of Arnold Schoenberg [shurn-bairg].

Answer: Anton (Friedrich Wilhelm von) Webern [VAY-burn]

36. The magnitude of the “energy” named for this person equals the magnetic flux quantum times the critical current divided by 2 pi. That energy can also be found by multiplying the “inductance” named after this person times the square of critical current. The type of “vortex” named for this person is similar to an Abrikosov [ah-bree-KOH-sawff] vortex but is outside a superconductor. The “effect” named for this person, which was used to confirm BCS theory, is the flow of current without any applied voltage between two superconductors separated by an insulator. Name this person whose effect occurs at a “junction” that is also named for him.

Answer: Brian (David) Josephson

37. A poem by this author ends with the questions “How can I face such slaughter and be cool? How can I turn from Africa and live?”. In that poem, this writer expresses a conflict about writing in English while being of African descent. In a play by this writer, Tigre [tee-gruh] and Souris are in a jail cell adjacent to the protagonist’s. That protagonist, who attacks the jailer Lestrade and an apparition of a white person in this writer’s play, is Makak. This author also wrote an epic poem featuring Achille [ah-sheel] and Hector that is set in his home country of St. Lucia. Name this author of *Dream on Monkey Mountain*, “A Far Cry From Africa”, and *Omeros* [oh-meh-rohss].

Answer: Derek (Alton) Walcott

38. During this battle, Egidio Bocanegra [ay-JEE-dee-oh boh-kah-NAY-grah] from Genoa assisted the French leaders Hugues Quiéret [oog keh-ray], who was killed in battle, and Nicolas Béhuchet [beh-oo-chay], who was hanged afterward. Because nobody wanted to report the outcome of this battle to King Philip VI, a jester ended up doing it. Some of the Frenchmen who made it to shore during this battle were attacked by Flemings, who had recently tried revolting against French rule. King Edward III was injured in the thigh during this battle, but he led England to victory. Name this 1340 battle fought in what is now the Netherlands at the beginning of the Hundred Years’ War.

Answer: Battle of Sluys [slowsh] [or Battle of l’Écluse]

39. In October 2019, protests broke out in this country over a 4-cent increase in metro fares in the capital. Those protests grew to the point that in April 2021 a constitutional assembly will begin drafting a new constitution for this country. This country is currently led by the billionaire Sebastián Piñera [peen-YAIR-ah], who in recent years has traded terms with Michelle Bachelet [bah-cheh-LEH]. This country’s new constitution will replace one put in place by Augusto Pinochet [pee-noh-SHAY]. Name this South American country whose capital is Santiago.

Answer: (Republic of) Chile [or (República de) Chile]

40. At the end of this geologic period, India was in the Tethys [“TEETH”-iss] Sea, which was transforming into the Indian Ocean. Near the end of this period, Britain and much of Europe were underwater, and algae skeletons started forming the white cliffs of Dover. Both angio-sperms [AN-jee-oh-spurmz] and bees grew in number during this period, and by the end of this period angio-sperms were becoming more numerous than gym-no-sperms [JIM-noh-spurmz]. A mass extinction ended this period and led to the start of the Paleo·gene Period and the Ceno·zoic Era. Name this third and final period of the Mesozoic Era that took place after both the Triassic and Jurassic periods.

Answer: Cretaceous [kruh-TAY-shuss] period

This is the end of the packet.