

Scobol Solo 2021

Championship I (Phase I: Questions 1-20)

1. This class of compounds is formed by reacting organo-zinc halides with thio-esters by Fukuyama coupling. Unlike similar compounds, these compounds produce the E-product regardless of the ylide [ILL-id] used in the Wittig [VIT-ik] reaction. These compounds are the namesake of a class of compounds formed by fatty acids in the liver which are converted into acetyl-CoA, which are used for energy in the absence of glucose. The internal carbonyl [KAR-buh-nil] group of these compounds differentiates them from al-de-hydes. Name these compounds that contain a central carbon-oxygen double bond, the simplest example of which is acetone.

Answer: ketones [prompt on carbonyls]

2. Five security workers were killed in a 2002 attack on this city's American cultural centre, and an accidental bomb blast in this city's Bowbazaar [bao-buh-ZAR] district killed 69 people in 1993. This city was briefly known as Alinagar [uh-LEE-nuh-gur] after it was captured by Mirza Muhammad Siraj-ud-Daulah. This city was a national capital from the 18th century until 1911, when it lost that status because anti-colonial movements gained popularity following Lord Curzon's partition. Mother Teresa's charity work was centered in this city. Name this city that was captured by Robert Clive after British prisoners were tightly packed into a dungeon, or "black hole".

Answer: Kolkata, West Bengal, India [or Calcutta]

3. Iván Fischer's orchestration of these musical pieces uses a fiddle and cimbalom [SIM-buh-lum], and the last five of these pieces were orchestrated by Antonín Dvořák [an-toh-nin d'-VOR-zhak]. The most popular part of this set of musical works begins with alternating dotted quarter notes and eighth notes and was stolen from a csárdás [CHAR-dash] written by Béla Kéler, probably by mistake. In general, these pieces were inspired by music taught to the composer by the violinist Ede Reményi [ED-eh reh-MEE-nee]. This set of 21 pieces was originally written for piano four hands. Name these pieces inspired by folk music and written by Johannes Brahms.

Answer: The Hungarian Dances [or Ungarische Tänze]

4. Hertha Orgler said that the person who originated this concept described it as an "inability to solve life's problems". According to that originator, this concept leads to an imaginary self-ideal, and the creation of that imaginary self-ideal is the Fictional Final Goal. This concept was described by Alfred Adler, who said that the secondary type of it is harmful and involves an adult maintaining feelings that are normal in infants. In her book on curing this concept, Pam Johnson described it as a lack of self-worth. Name this intense personal feeling of inadequacy, especially in comparison to other people.

Answer: inferiority complex

5. Bergmann's rule states that this property tends to be larger in colder climates. This quantity increases over evolutionary time according to Cope's rule, which has several exceptions. According to Foster's rule, which is also known as the island effect, changes in this quantity are reactions to available resources. Kleiber's [KLY-bur'z] law states that metabolic rate is proportional to this quantity raised to the $\frac{3}{4}$ power. The square-cube law explains the relationship between bone structure and this quantity, and it also explains why flying animals must have low values for this quantity. Name this quantity that has extremely high values for tyrannosaurus and blue whales.

Answer: body size or body volume [accept height or weight or mass]

Check the score.

6. This character states "You taught me language, and my profit on it is I know how to curse." Robert Browning wrote a poem about this character's belief in Setebos [SET-ee-buss], whom this character's mother worshiped before dying. This character plots to kill another character, saying that the other character's books should be seized first. That plot is with Trinculo [TRIN-kyoo-loh] and Stephano. In that scene, this character states "Be not afraid. This isle is full of noises." This character's goal is to destroy Prospero. Name this son of Sycorax [SIK-ur-aks] in William Shakespeare's *The Tempest*.

Answer: Caliban

7. There was some historical argument over whether this battle took place near the present-day town of Duhok or Erbil, both of which are now in the Kurdistan Region of Iraq. One leader in this battle was advised that he should attack at night but supposedly replied "I will not steal my victory." According to Plutarch, those words were spoken to Parmenion [par-MEN-ee-un]. Nine months after this battle, Bessus killed the losing king, who had been his commander at this battle. The result of this battle was similar to, but more decisive than, the Battle of Issus. Name this final victory by Alexander the Great over Darius III.

Answer: Battle of Gaugamela [or Battle of Arbela]

8. People in white shirts have a pose that makes them look like this type of group but have empty hands in a 1995 painting by Yue Minjun [yoo min-jun] that shows four laughing people on the left. This type of group of people wears blue uniforms with white trim in Édouard Manet [ayd-war man-ay] paintings set in Mexico. In addition to this type of group, those paintings show Miguel Miramón and Tomás Mejía on either side of Emperor Maximilian. This type of group is on the right side in darkness in a painting set the day after *The Charge of the Mamelukes* [MAHM-lookss]. Name these people who, in Francisco Goya's *The Third of May, 1808*, are about to kill the man wearing white.

Answer: firing squad or executioners [This question references Yue's *Execution* and Manet's *The Execution of Emperor Maximilian*.]

9. This lake is south of a dry meadow called Pumice [PUH-miss] Desert. The most common way to access this lake is Cleetwood Trail, which leads to a place where tourists can take a boat to Wizard Island. This lake is surrounded by Grouse Hill, Hillman Peak, Applegate Peak, and Mount Scott. This lake is a few miles north of Agency Lake and Upper Klamath [KLAM-uth] Lake. This lake was formed about 8,000 years ago from the collapse of Mount Mazama. This lake is the deepest lake in the United States. Identify this lake that is the namesake of the national park around it in Oregon.

Answer: Crater Lake

10. This poet asked “What is anyone not?” and answered his own question with “A dream of a shadow is our mortal being.” This poet had a rivalry with Simonides [“sigh”-MAH-nih-deez], and like Bacchylides [bak-uh-LY-deez], some of this poet’s most famous works are about Hiero I of Syracuse. One such work by this poet begins “Water is best, and gold, like a blazing fire in the night, stands out supreme of all lordly wealth.” Many of this poet’s surviving works celebrate victories at the Isthmian [ISSTH-mee-un] and Nemean [NEE-mee-un] Games. Name this ancient poet from Thebes [theebz] who wrote *The Olympian and Pythian Odes*.

Answer: Pindar [or Pindarus]

Check the score.

11. An electron distribution called “Boltzmann Tyranny” can be overcome by making this quantity negative, which happens in some ferro-electric materials. For a conducting sphere, this quantity equals 4π [“4 pi”] times radius times vacuum permittivity. A time-constant equal to resistance times this quantity determines how long it takes certain circuits to build charge. This quantity can be increased significantly by using an insulator as a di-electric. This quantity equals charge divided by electric potential difference. Name this ability of a system to store charge, measured in farads to rate circuit elements that are equivalent to parallel plates.

Answer: capacitance [do not accept “capacitor”]

12. The liner notes to this musical suite, which say “ELATION—ELEGANCE—EXALTATION—All from God” near their end, rhythmically match this suite’s fourth section. The primary motif of this suite is eighth-note G, up to quarter-note B-flat, down to eighth-note G, up to eighth-note C. That motif is played in twelve different keys during the first section and used to chant the title of this suite. This suite took up an entire 1965 album, and it consists of the four parts “Acknowledgement”, “Resolution”, “Pursuance”, and “Psalm”. This suite opens with a gong crash played by Elvin Jones. Name this suite by saxophonist John Coltrane.

Answer: *A Love Supreme*

13. This company is referenced many times in John Trenchard and Thomas Gordon's essay collection *Cato's Letters*. This company was started by Robert Harley after his failed Land Bank, and its purpose was to attract debt creditors. This company was set up both to trade slaves to the Spanish New World colonies and to help with Great Britain's national debt by having this company pay dividends rather than the government paying interest to individuals. Punishments against the directors of this company led to increased popularity for Robert Walpole. Name this company that had a huge spike in trading value in 1720 before its bubble burst.

Answer: South Sea Company [or (The Governor and Company of the merchants of Great Britain, trading to the) South Seas (and other parts of America, and for the encouragement of the Fishery)]

14. One novel by this author begins with the 27-years-4-months-old protagonist buying Michelin road maps of west, central, and south Africa. This author wrote that novel about an unsuccessful teacher of English literature at a cram school. In another novel by this author, two brothers find a cellar where their great-grandfather lived after a failed uprising. One of the characters in that novel is a Korean man known as "the Emperor of the Supermarkets". Name this Japanese author of *A Personal Matter* and *The Silent Cry*.

Answer: Kenzaburo Oe [ken-zah-boo-roh oh-ay]

15. A movement in China named for this two-word English phrase is also known as the Word of Life Church or the All Ranges Church and is commonly called "Weepers". When Jesus uses this two-word phrase in the Book of John, it confuses Nicodemus [nik-uh-DEE-muss] because Nicodemus takes it literally. In First Peter, this two-word phrase precedes the words "not of corruptible seed, but of incorruptible, by the word of God". Catholics traditionally believe this phrase can describe anybody who has been baptized, but evangelicals use this phrase to describe people who have accepted Jesus as their savior. Name this phrase that caused Nicodemus to say "Surely they cannot enter a second time into their mother's womb."

Answer: born again [accept anagegneménoi; prompt on new birth]

Check the score.

16. A system of three of these entities defines the Lorenz system, to which Lorenz attractors are solutions. When these entities are non-homogeneous, variation of parameters can sometimes be used to solve them. Approximate solutions to these entities are sometimes found using a Runge–Kutta [RUUN-guh KUUT-uh] method, the simplest of which is the Euler [OY-lur] method. The combination of one of these entities with a given value is called an initial value problem. Some of these problems can be solved using separation of variables. Name these equations whose solutions are functions and which are expressed using derivatives.

Answer: (ordinary) differential equations [prompt on equations]

17. In this person's Steinway Hall speech, she said "Yes, I am a Free Lover." This person often worked closely with her sister Tennessee Claflin, forming a weekly newspaper and the first Wall Street brokerage firm to be run by women. Some historians believe that this person's biggest claim to fame should actually be given to Belva Ann Lockwood because this person's 34th birthday was in 1872 and this person's name was not on any ballots. Name this person who, with Frederick Douglass as her running mate, was nominated by the Equal Rights Party as a presidential candidate.

Answer: Victoria (Claflin) Woodhull (Martin) [accept either underlined name]

18. Frank Shallard is forced out of this profession and is eventually attacked and blinded after being questioned by a title character who belongs to this profession. Sharon Falconer works in this profession before she dies in a fire. In another novel, Asa Hawks, who is the father of Sabbath Lily Hawks and claims to have blinded himself, belongs to this profession. Hazel Motes's grandfather also belonged to this profession, and Hazel becomes fascinated with Asa in Flannery O'Connor's *Wise Blood*. Name this profession that was joined by the title Sinclair Lewis character Elmer Gantry.

Answer: traveling preacher [or preaching; accept evangelist or evangelizing or ministering or ministerial profession]

19. This state's former governor Jack Markell has been made the U.S. Ambassador to the Organization for Economic Co-operation and Development and has been put in charge of Afghan resettlement by President Biden. Markell was succeeded by this state's current governor, John Carney, and another former governor of this state is its current senator Tom Carper. This state has more incorporated entities than people, and it hosts a majority of Fortune 500 headquarters because it allows income earned elsewhere to become tax-exempt. Name this state from which President Biden was a senator.

Answer: Delaware

20. Methods for classifying this rock were developed by Robert Folk and Robert Dott. The composition of this rock is shown on a QFL diagram. When this rock contains a significant amount of feldspar it is classified as arkose [ARK-ohss], and when it contains a significant amount of quartz it is classified as quartz arenite [AIR-uh-night]. Formations of this type of rock named Entrada and Navajo make the arches in Arches National Park. This rock can meta-morpho-size into quartz-ite. This rock is made of grains that are less than 2 millimeters in diameter. Identify this common sedimentary rock named for its silicate grains.

Answer: sandstone [prompt on sedimentary rock]

This is the end of the packet.