Scobol Solo 2022

Packet 7 (Round 7)

1. One alternative to this two-word phrase was used by Christine Williams, who changed the second word to "escalator", and another was used by Jane Hyun, who changed the first word to "bamboo". At the end of her 2008 presidential campaign, Hillary Clinton said that the highest of these things has 18 million cracks in it. An initiative named for this two-word phrase studied why women and non-white people are less likely to get executive positions. Name this phrase, sometimes contrasted with sticky floors, that is used to describe the unseen barriers against women advancing to high positions.

Answer: glass ceiling

2. The GIF [giff] image format supports this property in a simplistic way by simply designating one color to have special meaning. To avoid edge blending issues, the more sophisticated way to implement this property is to use an alpha channel. In image editors, this property is often indicated by a white and gray checkered background. Although the GIF and PNG ["ping"] file formats support this property, JPEG [JAY-peg] does not. Name this property in which part of an image blends into the background regardless of the background's color, meaning that part of the image effectively has no color and can be "seen through".

Answer: <u>transparency</u> or being <u>transparent</u>

3. In this novel, soon after sirens are heard, a character looks at the stars and says "What's on them, I wonder." The protagonist of this novel replies "There'll be life like down here most likely, with some getting knifed and others doing the knifing." When sirens are heard later in this novel, Dim attacks the protagonist but calls him "droogy" and "brat". Those words, spoken to "Your Humble Narrator", are taken from the Russian language, which is combined with English in this novel to make a language called Nadsat. Name this violent novel in which the Ludovico Technique is used on Alex, and which was written by Anthony Burgess.

Answer: A <u>Clockwork Orange</u>

4. The three impeachment procedures against this person all failed; the second one had enough votes, but he stayed in power by using the military and changing the constitution. In this person's only re-election campaign, he hid news of his heart attack from the public and raised money by privatizing state-owned corporate shares. According to Bill Clinton, this world leader was once found drunk in his underwear late at night on Pennsylvania Avenue. Before Clinton was president, this leader and George H. W. Bush agreed to the START II ["start two"] nuclear deal. Name this person who became the first president of Russia after the dissolution of the Soviet Union under Mikhail Gorbachev.

Answer: Boris Yeltsin

5. This country contains the resort and flower park Jesperhus [YESS-pur-hooss], which is on the island of Mors in a part of the water called Lim-fjord. That water is even farther north in this country than Himmerland and Salling, and the farthest-north town in this country is Skagen. This country also controls Funen and North Jutlandic [yoot-LAN-dik] Island, and its capital is split between the islands of Amager [AH-mah] and Zealand. This country's monarch is also recognized as the monarch of the Faroe [FAIR-oh] Islands and Greenland. This Scandinavian country has a land border with Germany. Name this country whose capital is Copenhagen.

Answer: (Kingdom of) <u>Denmark</u> [or Kongeriget <u>Danmark</u>]

Check the score.

6. This composer's ninth symphony begins in D major but ends with a D-flat-major "Adagio" [ah-DAH-joh]. The first movement of this composer's third symphony is an unusually long 35 minutes and is titled "Pan Awakes, Summer Marches In". Another part of the same symphony is one of this composer's *Des Knaben Wunderhorn* [dayss kuh-NAH-ben VOON-dur-horn]. Another work by this composer has two vocalists who alternate singing its six movements. This composer's eighth symphony is known for its very large number of vocalists. Name this Austro-Bohemian composer of *Das Lied von der Erde* [dahss LEED fawn dair AIR-duh] and the "Symphony of a Thousand."

Answer: Gustav Mahler

7. The Kelvin scale is now defined so that this constant has seven significant digits. This constant is multiplied by the log of the number of micro-states of a system to calculate the system's entropy. Half the temperature times the degrees of freedom times this constant gives the average kinetic energy of molecules. This constant can replace the ideal gas constant if the number of molecules is used instead of the number of moles in the ideal gas equation. Name this constant equal to approximately 1.38×10^{-23} ["1.38 times 10 to the negative-23rd power"] joules ["jewels"] per kelvin, represented by a lowercase k.

Answer: Boltzmann's constant [prompt on \underline{k} or \underline{k} sub \underline{B}]

8. After a long pause in this war, a battle was fought in which Lord Audley was killed, and many of Audley's troops deserted when Lord Dudley took charge. In this war the troops who won the Battle of Blore Heath were later stopped at Ludford Bridge. During this war's Battle of Northampton, troops under a leader who would eventually be nicknamed "Warwick the Kingmaker" captured King Henry VI [6]. This war ended soon after Henry VII [7] was crowned, which was just after Richard III [3] was killed at Bosworth Field. Identify this war between the houses of Lancaster and York that was named for their colorful insignias.

Answer: War(s) of the Roses

9. One novel by this author begins with the narrator driving his Peugeot [pyoo-zhoh] to a town in central Africa. This author has the narrator of that novel eventually travel to London to see Nazruddin, who had sold him the African business. In another novel by this writer, the main character decides "I am going to get a job on my own" after being beaten by Tara's brother-in-law, Bhandat. This author depicts that man living with the Tulsi family and having an unhappy marriage to Shama. That novel is set in this author's birthplace, Trinidad. Name this author of A Bend in the River and A House for Mr. Biswas.

Answer: V(idiadhar) S(urajprasad) Naipaul [NY-"Paul"]

10. During World War I, this artist made a painting that, within an oval, shows many short horizontal and vertical lines, many of which intersect. That work, which gives an abstract view of water from above, is this artist's Composition Number 10, Pier and Ocean. During the 1920s, this artist often rotated a square canvas 45 degrees to create his lozenge paintings. This artist then created works such as Composition With Red, Yellow, and Blue and Composition in Grey and Ochre, which consist of colorful rectangles. Name this artist who eventually moved to the United States, where he depicted the grid of Manhattan in Broadway Boogie Woogie.

Answer: Piet(er Cornelis) Mondrian [peet MAHN-dree-un]

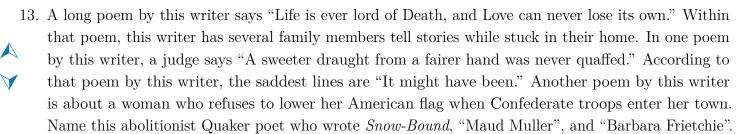
Check the score.

11. Among the Xhosa [KOH-suh] people, this action is performed by an *ingcibi* [eeng-SIB-ee] at the end of a time that lasts a few months during which people wear only a red and white Abakwetha [ab-uh-KWAY-thah] blanket. In that tradition, this action ends with the tying of an object to the blanket. In chapter 15 of the Book of Acts, there is a sharp dispute between Paul and Barnabas about this action, leading to the Council of Jerusalem concurring that this ritual makes "it difficult for the Gentiles who are turning to God". In Jewish ritual, this action is performed by a mohel [moil] on the eighth day of life. Name this action usually performed on young boys.

Answer: circumcision [or circumcising or circumcise; accept bris milah or brit milah after "removed"]

12. The diagonals of this type of quadrilateral do not necessarily bisect each other, but they do divide themselves into parts that are proportional to each other. If this shape has at least one right angle, then one of the angles adjacent to the right angle must be another right angle. A "rule" named for these shapes is used to approximate integrals by approximating functions as a series of segments that can have non-zero slopes. This type of quadrilateral has a median that is halfway between its two bases [pause] and whose length is the average length of those bases. Name this quadrilateral with one pair of parallel sides.

Answer: <u>trapezoid(s)</u> [or <u>trapezium;</u> accept <u>trapezia</u> or <u>trapeziums</u>]



Answer: John Greenleaf Whittier

14. When this person was the Speaker of the House, he was listed as a contact person in the Crédit Mobilier [kreh-dee moh-beel-yay] scandal, though he was cleared by an investigation that he called for. This person was the Secretary of State under James Garfield, Chester Arthur, and Benjamin Harrison. A failed constitutional amendment named for this person would have prohibited state money going to religious schools. When this person ran for president, he was supported by the Half-Breeds but abandoned by the Mugwumps. Name this person who lost the election of 1884 to Grover Cleveland, a Republican from Maine.

Answer: James G(illespie) <u>Blaine</u>

15. This person worked with Cecil Balmond to design the largest piece of public art in Great Britain, which later added a tunnel slide designed by Carsten Höller. That work by this artist is *Orbit*. Another piece of public art by this person is near Nottingham Playhouse in England. That concave work made of stainless steel is this artist's *Sky Mirror*. Yet another work by this artist consists of 168 stainless steel plates welded together and is in AT&T Plaza at Millennium Park. That work by this artist is officially called *Cloud Gate*. Name this creator of Chicago's sculpture nicknamed "The Bean".

Answer: Anish (Mikhail) Kapoor

Check the score.

16. Problems with the GRASP·65 protein can cause the fragmentation of this organelle. Near the end of this organelle, the C-peptide is removed from pro·insulin, leaving insulin. This organelle takes in material from the vesicular-tubular cluster into its cis [siss] face, and it outputs materials from its trans face. Like the endoplasmic reticulum [EN-doh-PLAZ-mik reh-TIK-yoo-lum], this organelle has flattened membrane vesicles called cisternae [siss-TUR-nee]. This organelle processes proteins from the endoplasmic reticulum, some of which are then sent to the lysosome ["LIE"-soh-sohm]. Identify this organelle named for an Italian scientist.

Answer: Golgi apparatus [or Golgi complex or Golgi body]

17. This state is the only one that was won twice by Donald Trump but had a Democratic incumbent governor running for re-election in 2022. Republican State Attorney General Derek Schmidt tried to defeat Laura Kelly to be the governor of this state. In 2019, this state's Supreme Court ruled in *Hodes & Nauser v. Schmidt* that this state's Bill of Rights protected the right to an abortion. Republicans attempted to override that ruling by amending this state's Constitution through a ballot measure that was rejected in August. Name this state whose most populous city is Wichita and whose capital is Topeka.

Answer: Kansas

18. This country's first peaceful transfer of power took place in 1997 after an election during which it was discovered that the incumbent's son had lost weight to avoid military service. That election followed the Hanbo scandal and this country being bailed out by the IMF. The first president of this country was a pro-American leader forced to resign in 1960 after police shot student protesters during the April 19 Revolution. That leader, who famously refused to sign an armistice agreement after a major war, was Syngman Rhee [SING-mahn REE]. Name this country whose only land border is at the Demilitarized Zone and whose capital is Seoul ["soul"].

Answer: <u>South Korea</u> [accept <u>Republic of Korea</u>, <u>ROK</u>, or <u>Daehan Minguk</u>; prompt on <u>Korea</u>; do not accept "Democratic People's Republic of Korea"]

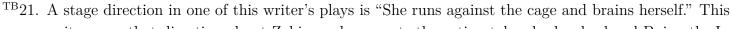
19. In one novel by this author, Guillaume [gee-yawm] is killed by one of his former employees at a gay bar. This author wrote that novel about David, a bisexual American in Paris. Before *Giovanni's Room*, this author wrote a novel in which Esther dies giving birth to Royal. The protagonist of that novel by this author initially believes both that Gabriel is his biological father and that, like Gabriel, he will become a preacher. This author also wrote a collection of two essays about race, including "Down at the Cross", which describes why he did not become a preacher. Name this author of *The Fire Next Time* and *Go Tell It on the Mountain*.

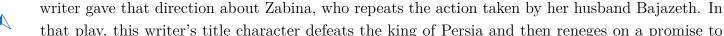
Answer: James (Arthur) Baldwin

20. This device, which was improved in 1928 in Germany, may become obsolete with the development of MPPC scintillators. The key parts of this device are electrodes placed in an inert gas. Early versions of this device only worked on alpha particles, but it was improved with help from Walther Müller [VAHL-tur MUR-lur]. This device is named after the person who developed it to improve on techniques he used when he was working under Ernest Rutherford. Name this device used to measure ionizing radiation that often reports readings by clicking.

Answer: <u>Geiger</u>(–Müller) <u>counter</u> [or <u>Geiger</u>(–Müller) <u>tube</u>]

This is the end of regulation. Check the score. If it is tied, proceed to overtime tossups. If it is not tied, the game is over.



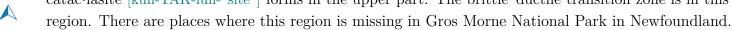


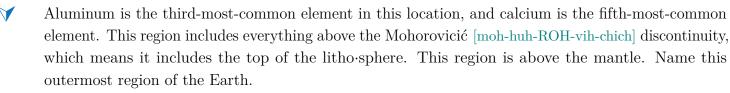
Cosroe. In another play by this writer, the title character snatches a dish from the Pope after being made invisible. That play was written 200 years earlier than a play on the same subject by Johann Wolfgang von Goethe [GRR-tuh]. Name this English playwright of *Tamburlaine the Great* and *Doctor Faustus*.

Answer: Christopher ("Kit") Marlowe

If the score is still tied, continue. If it is not tied, the game is over.

TB22. Mylonite ["MY"-luh-"night"] forms in the lower part of this region, while catac·lasite [kuh-TAK-luh-"site"] forms in the upper part. The brittle-ductile transition zone is in this





Answer: Earth's <u>crust</u>

If the score is still tied, continue. If it is not tied, the game is over.

TB23. A Beatles song named for this many people is the opening track on the album *Let It Be*. Sophie Germain primes are 1 more than this number times another prime number. A DNA molecule has this many strands. Name this number that is the only even prime number.

Answer: $\underline{2}$

There are no more overtime questions available. If the score is still tied, contact the control room for further instructions. If it is not tied, the game is over.