CALISTO: California Spring Tournament 2020

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Packet 11 Tossups

1. The fifth stage of a model from a Berlin and Kay study involves the emergence of this adjective. The Russian language has a distinction not present in English between the words *goluboy* and *siniy*, which both translate to this English adjective. Nelson Goodman illustrated a "new riddle of induction" by coining a term in which the first two letters of this adjective are replaced with (*) the letters "g-r." Sinosphere languages like Japanese and Chinese traditionally use one character for both this color and green. Because ancient Greek had no specific word for this color, Homer described a certain place as "wine-dark." For 10 points, give this color of the sea and the sky.

ANSWER: <u>blue</u> [accept light <u>blue</u> or dark <u>blue</u> or <u>azure</u>] <Linguistics — Li/Gray> [Ed. Gray]

- 2. Ubiquinol transfers electrons in this organelle between complexes I, II, and III. Special examples of these organelles containing thermogenin are present in brown fat. One process that occurs in these organelles oxidizes succinate to fumarate to reduce a certain flavin nucleotide and begins by converting oxaloacetate to (*) citrate. That process transfers electrons to FADH2 and NADH and occurs in the matrix of this organelle, while another process establishes a proton gradient across the inner membrane of this organelle to produce ATP. For 10 points, name this organelle where the Krebs cycle and electron transport chain occur, the powerhouse of the cell. ANSWER: mitochondria [or mitochondria [or mitochondria [inner membrane] <Biology Gurazada> [Edited]
- 3. In a novel by this author, the journalist Will Farnaby is shipwrecked on the title utopian *Island*. In another novel by this author, Maurice Spandrell allows himself to be shot by the Brotherhood of British Freemen. Walter Bidlake's affair with Marjorie Carling is disrupted after he falls in love with Lucy Tantamount in this author's novel (*) *Point Counter Point*. In a novel by this author, low-caste embryos are split with electric shocks in the Bokanovsky process, which creates clones for the World State. In that novel, Bernard Marx refuses to escape pain by consuming soma, and John the Savage hangs himself. For 10 points, name this British author of *Brave New World*.

ANSWER: Aldous <u>Huxley</u> [or Aldous Leonard <u>Huxley</u>] <Long Fiction — Venkateswaran> [Ed. French]

4. This country constructed the Colossus of Prora, a massive seaside resort that was part of its system of rewarding workers with leisure activity, the Strength Through Joy Program. After rejecting the Madagascar Plan, this country decided at the Wannsee Conference on a policy termed the (*) Final Solution. This country's death squads killed thousands of people in locations like the Babi Yar ravine. "Death trains" carried victims to facilities built by this country, like the Dachau concentration camp. For 10 points, name this country that carried out the Holocaust.

ANSWER: <u>Germany</u> [or <u>Deutschland</u>; accept <u>Nazi Germany</u> or the <u>Third Reich</u> or <u>Grossdeutsches Reich</u>] <European History — Hong> [Edited]

5. This painting's commissioner originally wanted its hidden rightmost figure to be a clergyman. Gabriel Francois Doyen (doh-YANH) refused the commission of this painting, which includes a sculpture by Étienne Falconet (fal-koh-NAY) of a cupid placing his finger to his lips. Two putti statues watch in the background as a (*) slipper flies off this painting's central aristocratic woman. An oblivious man stands in the background of this painting while a voyeur hidden in the grass looks up the billowing pink dress of his mistress. That woman sits on the title object of, for 10 points, what Rococo painting by Jean-Honoré Fragonard (frag-oh-NAR)?

ANSWER: The <u>Swing</u> [or Les <u>hasards heureux de l'escarpolette</u>; accept The Happy Accidents of the <u>Swing</u> or The Swing (after Fragonard)]

<Painting — Ma> [Edited]

6. A statue in this city was renovated in 1980 to prepare for the visit of Pope John Paul II, and, in 2010, Barack Obama visited this city's neighborhood of Cidade de Deus (see-DAH-dzee dee doos). This city is home to the largest urban forest in the world, its Tijuca (tsee-ZOO-ka) Forest National Park, and this city lies west of (*) Guanabara Bay. Rocinha (roh-SEEN-ya) is one of this city's slum districts, or *favelas* (fah-VAY-las). Paul Landowski sculpted a statue located atop Mount Corcovado in this city, whose Sambadrome features a large samba parade at its annual Carnival. A large statue of Christ the Redeemer, overlooks, for 10 points, what second most populous city in Brazil after São Paulo?

ANSWER: **Rio de Janeiro** [or **Rio**] < Geography — Venkateswaran> [Edited]

- 7. This physicist names the natural unit for the magnetic moment of an electron due to its spin and orbital angular momentum. Sommerfeld modified a model named for this physicist to account for its failure to explain the Stark and Zeeman effects. The most probable distance between the nucleus of hydrogen and its electron is this physicist's (*) radius. This physicist explained Rydberg's formula for the wavelength of spectral lines by considering transitions between discrete energy levels, which are indexed by the principal quantum number n. For 10 points, name this physicist who proposed that electrons orbit the nucleus like planets in the Solar System. ANSWER: Niels **Bohr** [accept **Bohr** magneton or **Bohr**-Sommerfeld model or **Bohr** radius or **Bohr** model] <Physics Schwartz> [Ed. French]
- 8. A character from a story by this author calls himself "a creature driven and derided by vanity." That character is given a florin by his uncle to buy something for Mangan's sister at the title bazaar. In another story by this author, Bartell D'Arcy sings *The Lass of Aughrim* at a party, leading (*) Gabriel Conroy to contemplate his wife's life while snow falls on the grave of her dead lover, Michael Furey. In a novel by this author, the phrase, "yes I said yes I will yes" concludes a long, stream-of-consciousness soliloquy by Molly Bloom. For 10 points, name this author who collected "Araby" and "The Dead" in *Dubliners* before writing *A Portrait of the Artist as a Young Man* and *Ulysses*.

ANSWER: James <u>Joyce</u> [or James Augustus Aloysius <u>Joyce</u>] <Short Fiction — Gray> [Ed. French]

9. Soldiers from this country carried out the St. Albans raid. Due to a blockade by a neighboring country, Mary Jackson led a bread riot in this country's capital. Lieutenant John L. Porter used this country's Tredegar Iron Works to create ships to fight in the Battle of Hampton Roads. One of this country's diplomats, John Slidell, was captured in the (*) Trent Affair. This country rebuilt the *Merrimack* for its navy in order to defeat the ironclad *Monitor*. Britain and France refused to recognize this country due to sufficient cotton production in Egypt. Jefferson Davis was the only president of, for 10 points, what country that fought the Union during the Civil War?

ANSWER: <u>Confederate States</u> of America [or <u>CSA</u> or the <u>Confederacy</u>; do NOT accept or prompt on "America"] <US History — Hong> [Ed. Iyer]

10. This process does not change the density of matter over time in Fred Hoyle's steady-state model. The Friedmann equations model this process, which implies an increasing scale factor. Alan Guth (gooth) proposed that this process occurred very quickly after the grand unification epoch to explain the absence of magnetic monopoles. Georges Lemaître's (luh-MET-ruh's) prediction of this process was confirmed by (*) Edwin Hubble's measurements of galactic redshift. The Lambda-CDM model uses a positive cosmological constant to explain dark energy, which causes this process to accelerate. For 10 points, name this process by which points in the universe get further apart over time.

ANSWER: <u>expansion</u> of the universe [or <u>expansion</u> of space or cosmological <u>expansion</u>; accept word forms such as <u>expanding</u> universe; prompt on cosmic <u>inflation</u>; do NOT accept or prompt on "Big Bang"] <Astronomy — French> [Edited]

11. This composer used a 6/8 + 2/4 (six eight plus two four) time signature as well as slurred arpeggios to represent features of the title location in "Une barque sur l'océan." A "choreographic poem" by this composer of Miroirs (mee-RWAH) is more often performed as the concert work La Valse. This composer paid homage to fallen comrades in World War I through baroque dance forms in (*) Le Tombeau de Couperin (luh tom-BOH duh coop-ah-RAN). Ida Rubinstein commissioned a one-movement piece by this composer which constantly crescendos over a repetitive snare drum ostinato. For 10 points, name this French composer of Bolero.

ANSWER: Maurice Ravel [or Joseph Maurice Ravel]

<Classical Music — Gurazada> [Ed. Ma]

12. This man declared Laurent-Desire Kabila to be "not the man of the hour" after attempting to aid him in the Simba Rebellion. This man said, "Shoot, coward! You are only going to kill a man" before being executed by firing squad in Bolivia. An iconic photo of this man was captured by Alberto Korda in (*) Guerrillero Heroico (gheh-ree-YEH-roh eh-RO-ee-co). This man wrote a "thank you" note to John F. Kennedy following the Bay of Pigs invasion. With Fidel Castro, this man helped to overthrow Cuban president Fulgencio Batista. For 10 points, name this Marxist revolutionary who was second-in-command to Fidel Castro.

ANSWER: Che <u>Guevara</u> [or <u>Che</u> or Ernesto <u>Guevara</u> or Ernesto <u>Lynch</u>]

<Latin American History — Lin> [Ed. Hong]

13. In one poem about this event, the speaker notes "hope... flounders in mud" before praying "make it stop!" In another poem set during this event, a man shouts, "O Christ, they're coming at us!" A poem set during this event describes the "froth-corrupted lungs" of a man with a "hanging face, like a devil's sick of sin." The poems (*) "Attack" and "Counter-Attack" are set during this war, as is a poem that describes an "ecstasy of fumbling." That poem condemns the "old lie" told "to children ardent for some desperate glory... *Dulce et decorum est | Pro patria mori.*" For 10 points, name this war described in poems by Siegfried Sassoon and Wilfred Owen.

ANSWER: <u>World War I</u> [or <u>WWI</u> or the <u>First World War</u> or the <u>Great War</u>; prompt on <u>attack</u> or <u>counter-attack</u> before mention by asking, "what conflict is the attack part of?"] <Poetry — Schwarz> [Ed. French]

14. On an album by this musician, pianist Tommy Flanagan failed to keep up with the rapid ii-V-I ("two - five - one") chord progressions during his solo on the title track. This musician played a recurring "short long, short short" motif in all twelve keys on the track "Acknowledgement," which opens an album that concludes with a "Psalm." A harmonic progression in which the root descends by major thirds is called this composer's (*) "changes." This musician recorded a jazz rendition of "My Favorite Things," and his style was dubbed "sheets of sound." For 10 points, name this jazz saxophonist of *Giant Steps* and *A Love Supreme*.

ANSWER: John <u>Coltrane</u> <Jazz — French> [Edited]

15. The permanent of a matrix is defined with a sum indexed by a group of these functions. The symmetric group of order n is the group of these functions on a set with n elements. The Levi-Civita symbol for one of these functions is positive if the function is even. In set theory, these functions are bijections from a set to itself. One of these functions is even if it decomposes into an even number of (*) transpositions. If one of these functions leaves no element fixed, then it is a derangement. The total number of these functions on a set with n distinct elements is n-factorial. For 10 points, name these rearrangements of a set in which order matters, unlike combinations.

ANSWER: **permutation**s <Math — French> [Edited]

16. In this culture's cosmology, the universe consists of four corners bound together by a *ceiba* (SAY-buh) tree. In a myth from this culture, a god decorates his teeth with gems to convince people that he is the sun and moon. This culture tells a myth in which a man has his head replaced with a squash after he is decapitated in the (*) House of Bats. The Dominican priest Francisco Ximenez (hee-MEH-nez) preserved a text from this culture in which Seven Macaw is shot with blowguns by the Hero Twins, who play the ballgame against the gods of Xibalba (shi-BAL-beh). For 10 points, the *Popol Vuh* (POH-pol-wuh) collects the myths of what Mesoamerican culture whose Long Count Calendar started a new cycle in 2012?

ANSWER: <u>Maya</u> culture [or <u>Mayan</u> culture; accept <u>K'iche</u> Maya or <u>Yucatec</u> Maya] <Mythology — Venkateswaran> [Ed. French]

17. One of this singer's songs was written "like a painting where you can see the different parts," such as images of "mathematicians" and "carpenters' wives." That song, "Tangled Up In Blue," appears on this singer's album *Blood on the Tracks*. A character in one song by this singer "don't talk so loud" after having (*) "dressed so fine;" and a chorus in that song asks "How does it feel / to be on your own / with no direction home." The title phrase is the answer to the question "How many roads must a man walk down?" in a protest song by this singer. For 10 points, name this folk singer of "Like a Rolling Stone" and "Blowin' in the Wind." ANSWER: Bob **Dylan** [or Robert Allen **Zimmerman**]

<Pop Culture — Gray> [Edited]

18. Powder diffraction or NMR spectroscopy can be used to find the tacticity of these compounds. The degree of the production of these compounds is given by one over one minus p, according to the Carothers equation. These compounds can be formed from alkenes using Ziegler-Natta catalysts or through free radical intermediates. These compounds can be synthesized through (*) step-growth or chain-growth reactions. Common compounds of this type are made from styrene and vinyl chloride. Plastics are made of these compounds, and nylon is one of them. For 10 points, name these macromolecules which are made up of repeating monomers. ANSWER: polymers

<Chemistry — Bandara> [Ed. Gurazada]

19. After Margaret Nicholson tried to stab this man, he responded, "this poor creature is mad; do not hurt her. She has not hurt me." This king blocked the passage of the East India Bill, which would have nationalized the East India Company. After this king passed the Papists Act, protestors dubbed him "King Mob" during the Gordon Riots. Due to his (*) porphyria, this king's son presided over the Regency. This king issued the Proclamation of 1763, forbidding all western expansion past the Appalachians, and refused to read the Olive Branch Petition. For 10 points, name this Hanoverian king who ruled the United Kingdom during the American Revolution.

ANSWER: <u>George III</u> [or <u>George William Frederick</u>; prompt on <u>George</u>] <British/Commonwealth History — Lin> [Edited]

20. In this play, a character delivers a speech discussing "the public works of Puncher and Wattmann." That character from this play performs a dance in which he acts as if he is entangled in a net. Characters in this play repeatedly observe that there is "nothing to be done." A man in this play excitedly notes that he would get an erection if he (*) hangs himself from a nearby tree, which is this play's only set decoration. In this play, a slave puts on a bowler hat before delivering a nonsensical monologue. That slave, Lucky, is controlled by Pozzo. For 10 points, Vladimir and Estragon do nothing in what play by Samuel Beckett, in which the title character never actually arrives?

ANSWER: Waiting for Godot [or En attendant Godot]

<Drama — Venkateswaran> [Ed. French]

Packet 11 Bonuses

- 1. In Governor Bellingham's mansion, this symbol is "represented in exaggerated and gigantic proportions" in the breastplate of a suit of armor. For 10 points each:
- [10] Name this symbol. The end of one novel describes a gravestone with the epitaph "On a field, sable, [this symbol] gules."

ANSWER: the letter **A** [or the **scarlet letter**]

[10] In *The Scarlet Letter*, Hester Prynne is forced to wear the letter A after her affair with Arthur Dimmesdale results in the birth of this girl.

ANSWER: Pearl

[10] This early-19th century American author of *The Marble Faun* and *The Blithedale Romance* wrote *The Scarlet Letter*.

ANSWER: Nathaniel **Hawthorne** [or Nathaniel **Hathorne**]

<Long Fiction — Schwartz> [Ed. Venkateswaran]

- 2. One collection of these texts, the Sahih Muslim, records a farewell sermon delivered on Mount Arafat. For 10 points each:
- [10] Name these texts. Along with the Quran and Sunnah, these texts provide the ultimate source for Sharia law.

ANSWER: **<u>Hadīth</u>** [or **<u>Aḥādīth</u>**]

[10] The Ḥadīth records the words and actions of this Islamic prophet. The archangel Gabriel presented this prophet with the Quran.

ANSWER: Muhammad [or Muhammad ibn 'Abdullāh or Mahomet or Mohammad or Mohammed]

[10] The Sahih Muslim is viewed as the second-most important Ḥadīth in this denomination of Islam. This denomination holds that Muhammad's rightful successor was his father-in-law, Abu Bakr.

ANSWER: **Sunni** [or **Sunnism** or **Sunniism** or Ahl as-**Sunnah**]

< Religion — Gray> [Ed. Dai]

- 3. The background of a painting by this artist includes a woman milking a goat and a peasant walking past a row of upside-down houses. For 10 points each:
- [10] Name this Russian-born artist who created many paintings of his hometown of Vitebsk, including one of a green-faced man staring at a goat.

ANSWER: Marc **Chagall** (shuh-GALL) (The painting is *I and the Village*.)

[10] Chagall painted a series of ceiling frescoes for the Palais Garnier (pah-LAY gar-nee-AY) in this city. He also depicted the Eiffel Tower in his painting of this city "through the window."

ANSWER: Paris

[10] Chagall included the Eiffel Tower in the background of a self-portrait of himself painting titled for having this unusual physical feature. A description is fine.

ANSWER: he has <u>seven fingers</u> [accept <u>extra fingers</u> or any answers indicating that he has more than the usual number of fingers; accept <u>Self Portrait with Seven Fingers</u>]

<Painting — Ma> [Ed. Malouf]

- 4. The resolution of a display, such as 1920 by 1080, refers to the number of these graphical units within it. For 10 points each:
- [10] Name these units, which have three subunits colored red, green, and blue. Raster graphics work by specifying the colors of a grid of these things.

ANSWER: **pixel**s [prompt on \underline{p} or \underline{px}]

[10] Unlike raster graphics, this type of graphics can scale without losing resolution, since images are represented using points and geometric shapes. Programs for editing these graphics, such as Adobe Illustrator, often use Bézier curves.

ANSWER: vector graphics

[10] A realistic but computationally-intensive way to represent 3D objects is to simulate these models of light. A recursive algorithm using these things generates reflections and refractions when these things hit surfaces.

ANSWER: light rays

<Computer Science — Gray> [Edited]

- 5. This weapon made its debut in one war at the battle of Sluys, where ships full of soldiers with this weapon routed enemy crossbowmen. For 10 points each:
- [10] Name this weapon, which could fire at a rate nearly thrice as fast as a crossbow. Men who used this weapon routed opponents at the battle of Agincourt.

ANSWER: <u>longbow</u> [accept English <u>longbow</u>men; prompt on <u>bow</u> or <u>bow</u> and <u>arrow</u>, do NOT accept or prompt on "recurve bow"]

[10] This war featured victories of English longbowmen at the battles of Agincourt and Crécy. This war pitted France against England and lasted for a little more than a century before the crowning of Charles VI.

ANSWER: Hundred Years' War

[10] Crossbowmen from this port city were routed at the battle of Crécy by English longbowmen due to a lack of protective armor. This rival of Venice sided with France during the Hundred Years' War.

ANSWER: Genoa [or Genova or Zêna]

<European History — Shahriar> [Ed. Iyer]

- 6. Wioland (We-oh-land) et al used this model to describe the geometry of *Bacillus subtilis* in a bacterial vortex lattice. For 10 points each:
- [10] Name this model, which lacks a phase transition in one dimension. This model uses a lattice of interacting spins to explain ferromagnetism.

ANSWER: **Ising** model

[10] In general, the "spins" in the Ising model can be any discrete variable with this many possible states. An electron has this many possible spin states.

ANSWER: two [or 2]

[10] In the Ising model for ferromagnetism, neighboring spins in the same state repel due to the exchange interaction arising from this rule. This rule applies to particles with half-integer spins, according to the spin-statistics theorem.

ANSWER: Pauli exclusion principle [or Pauli principle or exclusion principle]

<Physics — French> [Edited]

- 7. For 10 points each, answer the following about album covers:
- [10] The album cover of Lady Gaga's album *Artpop* was designed by this visual artist, who is referenced in the album's song "Applause." This artist has also made many stainless steel sculptures of balloon animals.

ANSWER: Jeff Koons

[10] This artist designed an iconic banana cover for the debut album of The Velvet Underground, which he briefly managed. This proponent of Pop Art also made paintings of Campbell's Soup cans.

ANSWER: Andy **Warhol** [or Andy **Warhola**]

[10] This Beatles album has bare, monochromatic cover art, unlike its predecessor, *Sergeant Pepper's Lonely Hearts Club Band*. Charles Manson believed that The Beatles wrote secret messages into songs in this album to incite a race war.

ANSWER: the **White Album** [prompt on <u>The Beatles</u>]

<Other Visual Art — Gray> [Edited]

- 8. This man's commander, Gaius Hostilius Mancinus, was stripped of his consulship after one affair where this man had negotiated with the Numantians over a safe return of Roman soldiers. For 10 points each:
- [10] Name this tribune of the people, a reformer and brother of Gaius, who was beaten to death with table legs on the Capitoline hill after his proposed *Lex Agraria* land reform bill failed.

ANSWER: Tiberius Gracchus [prompt on Gracchus; do NOT accept or prompt on "Gaius Gracchus"]

[10] The Capitoline Hill is at one end of this general area of Rome, where most of the politics of the day took place. The arch of Titus leads into this area, which contains the temple of Diana.

ANSWER: Roman Forum

[10] Tiberius Gracchus was killed by members of this governing body whose members included Nasica, the principal opponent to Tiberius Gracchus. The motto of Rome was "[this body] and the people of Rome."

ANSWER: the **Senate** [accept **Senatus Populusque Romanus**]

<Ancient/Classical History — Iyer> [Edited]

- 9. Antonin Artaud suggested using a "language of totem and culture" in this art form in his essay collection titled for this art form *and its Double*. For 10 points each:
- [10] Name this art form. A "epic" variant of this art form is based on Marxist dialectics and uses a so-called "distancing effect."

ANSWER: <u>theater</u> [or <u>drama</u>, <u>stage</u>, or <u>play</u>s; accept epic <u>theater</u> or <u>acting</u> or <u>tragedy</u>]

[10] Bertolt Brecht argued that theater should use the distancing effect to prevent the audience from undergoing this emotional "purgation" described in Aristotle's *Poetics*.

ANSWER: catharsis

[10] This philosopher argued that ancient Greek theater arose out of "Apollonian" and "Dionysian" elements in his *The Birth of Tragedy*. This philosopher's *The Gay Science* declares that "God is dead!"

ANSWER: Friedrich Nietzsche [or Friedrich Wilhelm Nietzsche]

<Philosophy — French> [Edited]

- 10. This collection calls its title feeling "the profoundest fact of the human condition." For 10 points each:
- [10] Name this collection. It discusses the development of Mexican culture in essays like "The Pachuco and Other Extremes" and "The Day of the Dead."

ANSWER: The Labyrinth of Solitude

[10] *The Labyrinth of Solitude* was written by this Mexican essayist. This author explored the life of fellow Mexican author Sor Juana in his biography *The Traps of Faith*.

ANSWER: Octavio Paz

[10] Octavio Paz discussed the replacement of Nahuatl by this language in the essay "The Conquest and Colonialism." Paz himself wrote in this language.

ANSWER: **Spanish** [or **Español**]

<Essay — Schwartz> [Edited]

- 11. The human condition is the urge to try and find meaning in a meaningless universe. For 10 points each:
- [10] This philosopher's book *The Human Condition* contrasts the *vita activa* of labor, work, and action, and the sedentary *vita contemplativa*. This philosopher also wrote *Eichmann* (IKE-man) *in Jerusalem* about the banality of evil.

ANSWER: Hannah Arendt

[10] This writer's novel *Siddhartha* is about the title character searching for and eventually finding meaning in the totality of his life experiences. This writer also wrote *Steppenwolf* and *The Glass Bead Game*.

ANSWER: Herman Hesse

[10] Gautama Buddha attained *nirvana*, or liberation from this cycle, through the Middle Way. This Sanskrit term refers to the cycle of rebirth in many religions that is only broken through enlightenment.

ANSWER: samsāra

<Mixed/Other — Gray> [Edited]

- 12. This process is significantly amplified in a population that has undergone a bottleneck. For 10 points each:
- [10] Name this process, in which the frequency of an allele changes due to random sampling and chance.

ANSWER: genetic **drift** [or allelic **drift** or Sewall **Wright effect**]

[10] Genetic drift is more significant if this quantity is small. This quantity is the number of individuals in a group, and its maximum sustainable value is the carrying capacity.

ANSWER: population <u>size</u> [or <u>population</u>]

[10] A theory by Motoo Kimura states that genetic drift of this type of mutation is the main driver of evolutionary change at the molecular level. The prevalence of this type of mutation is not affected by natural selection.

ANSWER: <u>neutral</u> mutations [accept <u>neutral</u> theory of molecular evolution; prompt on <u>silent</u> mutations or <u>synonymous</u> mutations with "those mutations are a subtype of what general class of mutation?"]

<Biology — Gurazada> [Edited]

- 13. For 10 points each, answer the following about operatic duets:
- [10] Two male voices sing a duet of friendship in "Au fond du temple saint" (oh FON due tam-PLA sahn) from this composer's opera *The Pearl Fishers*. Another of this composer's characters sings "l'amour est un oiseau rebelle" (lah-moor ey tuhn wa-ZOH re-BEL) in an aria that descends chromatically from high D.

ANSWER: Georges <u>Bizet</u> [or Alexandre César Léopold <u>Bizet</u>]

[10] This duet from Léo Delibes's (day-LEEB's) Lakmé was written for soprano and mezzo soprano. This duet occurs when Lakme and her servant go to gather the title objects by the river.

ANSWER: "Flower Duet" [or "Duo des fleurs"]

[10] "Te io sto" from this Italian composer's *The Masked Ball* is often considered his first truly great love duet. He also wrote the duet "Si vendetta" for his opera *Rigoletto*.

ANSWER: Giuseppe Verdi [or Giuseppe Fortunino Francesco Verdi]

<Opera — Ma> [Edited]

- 14. One nickname for this man was coined by Paul Greenberg, who believed that this man was undoing the progress of his predecessors. For 10 points each:
- [10] Name this Democratic president from 1993 to 2001, whose national achievements include balancing the budget. His presidency was marred by the Whitewater scandal.

ANSWER: Bill <u>Clinton</u> [or William Jefferson <u>Clinton</u>] (That nickname was "Slick Willie.")

[10] This former chancellor and president of Baylor University served as the special prosecutor during the Whitewater scandal. He investigated Clinton's alleged perjury during the Monica Lewinsky scandal.

ANSWER: Kenneth Starr [or Kenneth Winston Starr]

[10] The Whitewater Development corporation was supposedly incorporated to develop real estate along the White River in this state. Clinton served as the governor of this state before running for president in 1992.

ANSWER: Arkansas

<US History — Shahriar> [Ed. Iyer]

- 15. This author described her classification of a childhood servant as "poor" and nothing else in her TED talk "The Danger of a Single Story." For 10 points each:
- [10] Name this contemporary Nigerian author of novels like Purple Hibiscus and Half of a Yellow Sun.

ANSWER: Chimamanda Adichie (uh-DEE-chee-ay) [or Chimamanda Ngozi Adichie]

[10] Ifemelu begins a blog called "Raceteenth" about what it means to be African in this country in a 2013 novel by Adichie. Teju Cole described Julius' experience living in this country in *Open City*, which is set in New York.

ANSWER: <u>United States</u> of America [or <u>America</u> or <u>USA</u> or <u>U.S.</u>; accept <u>America</u>nah]

[10] Adichie's 2017 novel about how to raise a feminist daughter, *Dear Ijeawele*, is written in this literary form. Novels in this form are told through a series of documents, such as journal entries or letters.

ANSWER: epistolary novels

<Long Fiction — Schwartz> [Edited]

- 16. Six initiatives, including a "Literacy Corps" to fulfill military service requirements, in this program were passed by a majority of 99% in a national referendum. For 10 points each:
- [10] Name this set of reforms bloodlessly enacted by prime minister Asadollah Alam under Mohammed Reza Pahlavi, which included massive land reform, secularization, and eventually women's suffrage.

ANSWER: White Revolution [or Enqelāb-e Sefid or Shah and People Revolution or Enqelāb-e Shāh o Mardom]

[10] Mohammed Reza Pahlavi was the last shah of this Middle Eastern country. A 1979 revolution in this country made it an Islamic republic featured protests in its capital of Tehran.

ANSWER: <u>Iran</u> [or <u>Persia</u> or <u>Imperial State of Iran</u> or Islamic Republic of <u>Iran</u> or <u>Kešvare Šâhanšâhiye Irân</u> or <u>Jomhuri-ye Eslāmi-ye Irān</u>]

[10] The most prominent critic of the White Revolution was this cleric who would later be forced into exile. This cleric would later become the Supreme Leader of Iran after the Islamic Revolution.

ANSWER: Ayatollah **Khomeini** [or Sayyid Ruhollah Mūsavi **Khomeini**; prompt on the <u>Ayatollah</u>] <Asian History — Gray> [Edited]

- 17. This poet began his "Sleepwalking Ballad" with the line "Verde que te quiero verde." For 10 points each:
- [10] Name this poet. This poet declared "I will not see it!" after describing the death "at five in the afternoon" of Ignacio Sánchez Mejía in "Lament for the Death of a Bullfighter."

ANSWER: Federico García Lorca [prompt on García]

[10] Federico García Lorca was a poet from this country. García Lorca was killed by forces loyal to this country's dictator, Francisco Franco.

ANSWER: <u>Spain</u> [or <u>España</u> or Kingdom of <u>Spain</u> or Reino de <u>España</u>; accept Republic of <u>Spain</u> or República de <u>España</u>]

[10] García Lorca belonged to this "generation" of Spanish poets, whose first meeting commemorated the 300th anniversary of the death of Luis de Góngora. Other members of this group included Rafael Alberti and Vicente Aleixandre.

ANSWER: Generation of <u>'27</u> [or Generación del <u>27</u>; accept Generation of <u>1927</u> or Generación del <u>1927</u>] <Poetry — Schwartz> [Ed. French]

- 18. Mithras wears a hat from this region in depictions of the Tauroctony, since Romans associated those hats from this region with all cultures east of Rome. For 10 points each:
- [10] Name this region of Asia Minor, whose inhabitants worshiped gods like Attis and Cybele. This region names a style of soft, conical cap made of felt or wool.

ANSWER: Phrygia [accept Phrygian cap]

[10] During the French Revolution, Phrygian caps became associated with this concept. A woman personifying this concept wears a Phrygian cap in a painting of her "leading the people" by Eugene Delacroix.

ANSWER: <u>liberty</u> [or <u>liberté</u> or <u>libertas</u>; accept <u>freedom</u>]

[10] This mythical king of Phrygia wore a Phrygian cap to hide the ass's ears he was given by Apollo. This king bathed in the river Pactolus to lose an ability he was granted by Dionysus.

ANSWER: King Midas

<Mythology — Schwartz/French> [Ed. French]

- 19. In November 2019, Swedish authorities dropped investigations of rape and sexual assault against this man. For ten points each:
- [10] Name this man who was allegedly spied on during his seven years in the London Ecuadorian embassy. In April 2019, he was arrested by the Metropolitan Police after his asylum status was revoked.

ANSWER: Julian Assange

[10] Assange was the founder and leader of this whistleblowing website that gained notoriety for publishing classified documents, like Hillary Clinton's emails that were allegedly obtained by Russian hackers.

ANSWER: WikiLeaks

[10] WikiLeaks first gained major international attention when it published documents that were leaked by this U.S. Army intelligence analyst, whose sentence under the Espionage Act was later commuted by Barack Obama.

ANSWER: Chelsea **Manning** [or Chelsea Elizabeth **Manning**; accept Bradley Edward **Manning**] <Current Events — Song> [Edited]

- 20. Common compounds of this type include methyl yellow and bromothymol blue. For 10 points each:
- [10] Name these compounds, which change color at a critical H^+ concentration. The most common one of these compounds, phenolphthalein, turns pink in mildly basic solution.

ANSWER: pH <u>indicator</u>s [or acid-base <u>indicator</u>s; prompt on <u>dves</u>]

[10] Phenolphthalein's primary transition is around this pH level, which corresponds to an H⁺ concentration of one ion per one hundred million molecules of water. This pH level is numerically one higher than the neutral pH.

ANSWER: **eight** [or **eight** point zero]

[10] This hexadentate ligand is often used in conjunction with a dye to create a pH indicator for complexometric titrations. This chelating agent contains four acetic acid groups.

 $ANSWER: \underline{\textbf{EDTA}} \ [or \ \underline{\textbf{ethylenediaminetetraacetic acid}} \ or \ \underline{\textbf{ethylenediaminetetraacetate}}]$

<Chemistry — Gurazada> [Edited]