

Bulldog High School Academic Tournament 2021 (XXX): “I feel like ACF Regionals 2021 is a confusing subtitle for a set that’s not ACF Regionals 2021.”

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Packet 5 Tossups

1. **It’s not the moon, but the giant-impact hypothesis attributes the unusually large size of this structure to a hypothetical planet named Theia. A “catastrophe” theory proposes that this structure was formed by the radiogenic release of NiFe [“NY-fee”] globules. Inge Lehmann’s first studies of P-wave arrival times led to her discovery of this structure’s interior (*) liquid-to-solid boundary. This structure blocks seismic S-waves.**

According to dynamo theory, convection currents in this region’s nickel and iron are responsible for the Earth’s magnetic field. There are “outer” and “inner” parts to, for 10 points, what innermost geologic layer of planet Earth? ANSWER: Earth’s **core** [accept Earth’s **outer core** or Earth’s **inner core**; prompt on descriptions like Earth’s center] (The “catastrophe” in the second sentence is the so-called iron catastrophe.) (MGS)

2. **James Gillray satirized this monarch as a farmer driving his swine into the Sea of Perdition in one cartoon, and as a miserly “Anti-Saccharite” in another. Margaret Nicholson claimed to be the rightful heir to the throne after trying to assassinate this monarch. This monarch’s King’s Library was donated to his nation by his successor. That successor’s period of (*) Regency for this monarch gives its name to an era of fashion characterized by the Empire silhouette. This ruler’s 60-year reign was hampered by mental illness, possibly caused by porphyria. For 10 points, name this king of the United Kingdom who oversaw the loss of the Thirteen Colonies.** ANSWER: **George III** of the United Kingdom [prompt on George] (JS)

3. **One poem in this language advises its addressee, “don’t mourn your luck that’s failing now,” as it commands him to “say goodbye” to “a city you are losing.” Another poem in this language recounts how the title group, who were to be “some kind of solution,” have not come. A novel in this language opens in a cafe full of sailors as the title (*) *santuri*-playing lignite miner opens his copy of *The Divine Comedy*. This language was used to write “The God Abandons Antony” and “Waiting for the Barbarians” and to create the character Zorba. For 10 points, name this language used by Constantine Cavafy and Nikos Kazantzakis.**

ANSWER: Modern **Greek** [or **Hellenic**; or **elleniká** glossa; do **NOT** accept or prompt on “Ancient Greek”] (MGS)

4. **One of these animals is an Anishinaabe culture hero who names all the plants and animals. That one of these animals is named Nanabozho. The Vietnamese zodiac features a cat instead of one of these animals in its fourth position. Central and West African legends invoking these non-spider creatures as tricksters influenced legends about one of them who strikes a tar baby and is addressed as (*) “Br’er.” These creatures pound *tteok* or *mochi* in Korean and Japanese folklore. A “Jade” one of these animals also pounds ingredients for an immortality elixir for the Chinese goddess Chang’e on the moon. For 10 points, name these speedy creatures, one of which legendarily hands out eggs on Easter.**

ANSWER: **rabbits** [or **bunny** or **bunnies**; or **hares**; accept more specific answers like Jade **Rabbit** or Br’er **Rabbit**; accept *thỏ ngọc*, *yùtù*, *daltokki*, or *tsuki no usagi*] (HK)

5. **This country declared a state of emergency in June 2020 after a storage tank owned by a nickel mining company collapsed, spilling over 17,000 tons of diesel. This country’s refusal to cut oil production led to a price war with Saudi Arabia and the 2020 collapse of OPEC+ [“OPEC-plus”]. A 2020 constitutional referendum limited presidents of this country to two total (*) terms, but excluded all terms prior to 2024 from the count. An opposition leader in this country was airlifted to Germany in 2020 after he was exposed to a poison similar to the one used on Sergei Skripal. For 10 points, name this country that developed the Novichok nerve agent and is still led by Vladimir Putin.**

ANSWER: **Russia** [or **Russian** Federation; or **Rossiya**; or **Rossiyskaya** Federatsiya] (MG)

6. **This composer replaced a second movement minuet in his first String Quintet in A major with an Intermezzo in memory of his former violin teacher, Eduard Rietz. A final movement fugato quotes the Hallelujah chorus in another work by this composer. An “Allegro leggierissimo” scherzo in that piece may have been inspired by Goethe’s Faust. A melody that gave this composer of an E-flat major (*) Octet “no peace” enters almost immediately in his E minor violin concerto. This composer’s sister Fanny wrote works similar to his *Songs without Words*. For 10 points, name this composer of the *Hebrides Overture* and a wedding march for *A Midsummer Night’s Dream*.**

ANSWER: Felix **Mendelssohn** [or Jakob Ludwig Felix **Mendelssohn** Bartholdy] (DM)

7. **After being scolded by Peter for lying about this general kind of thing, Ananias and Sapphira are instantly struck dead. A short man whose job centers on this thing is converted after climbing a sycamore tree to catch sight of Jesus. This is the second “master” listed in a passage beginning “No man can serve two masters.” Three servants are entrusted with this thing in the (*) Parable of the Talents. Jesus overturns the tables of people working with it in the Cleansing of the Temple. Like Zacchaeus, the disciple Matthew once worked in a despised profession collecting this thing, which Judas received for betraying Jesus. For 10 points, the love of what thing is called “the root of all evil” in 1 Timothy?**

ANSWER: **money** [or **wealth** or **riches**; accept **donations**, **offerings**, or equivalents; accept **taxes** or **tax** collectors; accept **Mammon**; accept **coins** or specific coins like the **drachma**, **denarius**, or **shekel**; accept **currency**; accept (thirty) pieces of **silver**; accept **talents** before mention; prompt on **property**, **possessions**, or equivalents] (DS)

8. **A tariff signed by this President led to a case in which the Supreme Court ruled that tomatoes were vegetables; that case was *Nix v. Hedden*. A law passed by this President extended the provisions of the Angell Treaty and the Burlingame Treaty. That act signed by this President was *repealed* by the subsequent Magnuson Act. This president signed the “Mongrel Tariff” into law. This man served as (*) Port Collector of New York under Roscoe Conkling’s “Stalwart Faction.” This man legislated the Chinese Exclusion Act and ended the “spoils system” with the Pendleton Civil Service Act. For 10 points, what President succeeded James Garfield after Garfield was assassinated?**

ANSWER: Chester Alan **Arthur** (VS)

9. **This author contrasted a dinner of ten lawyers with a New England paper mill in “The Paradise of Bachelors and the Tartarus of Maids.” In another work by this author, a servant draws blood while shaving the title character, and a skeleton is revealed next to a sign saying “Follow your leader” after Babo leads a slave mutiny. A character who used to work in a dead-letter office is committed to the (*) Tombs for squatting in a “Story of Wall Street” collected in this author’s *The Piazza Tales*. When being asked to copy documents, “I would prefer not to” is a common response from “Bartleby the Scrivener” in a story by, for 10 points, what author of “Benito Cereno” and *Moby-Dick*?**

ANSWER: Herman **Melville** (MGS)

10. **This athlete split with a coach in 2019, citing not wanting to put “success over happiness,” despite achieving the world #1 ranking for the first time. This athlete signed the camera, “Mari stop sending weird messages in the groupchat!” after winning in the semifinals of the 2021 (*) Australian Open. This athlete wore a series of masks with the names of victims of police brutality while winning her third Grand Slam at the 2020 US Open. This athlete described her first Grand Slam title as “bittersweet” after defeating her idol Serena Williams in the controversial 2018 US Open final. The current women’s world #2 is, for 10 points, what Haitian-Japanese tennis player?**

ANSWER: Naomi **Osaka** (AF)

11. **In one work from this movement, a figure stares at a crucifix and three candles on a tapestry-covered boat. That woman is depicted in another painting from this movement partially titled “I Am Half-Sick of Shadows.” Those paintings of the Lady of Shalott were created by this movement’s John William Waterhouse. Another work from this movement depicts a red dove bringing a white poppy to (*) *Beata Beatrix*. The same model is garlanded in wildflowers and floats upon a river in *Ophelia*, another work of this movement. For 10 points, Elizabeth Siddal often posed for what English group, which included John Everett Millais and Dante Gabriel Rossetti?**

ANSWER: **Pre-Raphaelite** Brotherhood [or the **Pre-Raphaelites**; or the **PRB**] (SL)

12. **The radial component of this system’s wavefunction is proportional to “ r to the L ” times an associated Laguerre polynomial. The lowest energy level of this system equals roughly 13.6 eV [“E-V”]. This system, which can be modeled by applying the Schrödinger equation to a Coulomb potential, was first solved to derive an equation that predicts the wavelengths of the (*) Lyman and Balmer series. The Rydberg formula calculates the spectral lines of this system. This is the only element whose neutral-state energy levels are accurately predicted by the Bohr model. For 10 points, name this element whose one proton and one electron make it the lightest element.**

ANSWER: **hydrogen** atom [prompt on **H**; do **NOT** accept or prompt on “H2” or “hydrogen molecule”] (MS)

13. **Some reviewers of this novel suggested that a protagonist’s surname was a play on Gregor Samsa, though it likely just means “sycophant.” Butterflies diving into the sea presage a group of pilgrims who follow Ayesha and drown similarly in this novel. A man in this novel returns from Mount Cone requesting the “intercession” of three (*) “exalted females” who appear as winged creatures, only for one of them, al-Lat, to be killed by a Bollywood singer. In this novel, Allie Cone is killed by Gibreel Farishta, who along with Saladin Chamcha survives a hijacked plane exploding. For 10 points, name this controversial novel which incited a *fatwa* against its author, Salman Rushdie.**

ANSWER: *The **Satanic Verses*** (“Chamcha” means “sycophant” or “suck-up.”) (HK)

14. **This man’s namesake line is a visual depiction of the global North–South divide. During this politician’s last major public appearance, he secured the release of 174 hostages from Iraq in 1990. Known as the “Chancellor of Domestic Reform,” this man spent 16 years as president of the Socialist International after leaving his highest position due to the (*) Guillaume affair, which revealed his aide to be a Stasi agent. This politician recognized the Oder–Neisse line as the eastern border of a neighboring country and won the 1972 Nobel Peace Prize for his pursuit of *Ostpolitik*. For 10 points, name this Social Democratic Chancellor of West Germany from 1969–74.**

ANSWER: Willy **Brandt** [accept Herbert Ernst Karl **Frahm**] (JS)

15. **One skyscraper in this city features four irregular glass peaks at its top, inspired by church spires and ship masts. Another vaguely bullet-shaped skyscraper in this city features rising curves of dark-glazed glass. Rubens painted the Apotheosis and Peaceful Reign of one monarch on the ceiling of a building in this city. Norman Foster designed a skyscraper in this city nicknamed “the (*) Gherkin.” Inigo Jones designed a banqueting hall in this city, where a cast iron and glass structure was erected for the 1851 World’s Fair. After a 1666 fire, Christopher Wren designed the present-day St. Paul’s Cathedral in, for 10 points, what city, also home to Buckingham Palace?**

ANSWER: **London** (AY)

16. **In one text, this person relates a dream in which a white-clothed woman tells him, “on the third day you will go to fertile Phthia.” In that text, this person asks a friend, “has the ship arrived...at whose arrival I am to die?” In another work, this man teaches a boy how to double the area of a square to show that learning is “recollection.” In an early statement of the social contract, this man imagines the (*) laws of his city telling him to not flee it. This man, who compares himself to a gadfly stinging the state, refuses Crito’s plea to escape prison after he is sentenced to death for corrupting the youth. For 10 points, what Athenian philosopher offers his defense speech in Plato’s *Apology*?**

ANSWER: **Socrates** of Athens (VS/MK)

17. **Platinum and then carbon vapor are used to etch this structure after freeze-fracturing it to produce high-quality images of its interior; other ways to study it include FRAP. Heptahelical or 7TM proteins like Smoothed span this structure. Tween and digitonin are (*) detergents used to purify proteins from this structure. Scramblases, flippases, and floppases help maintain the correct distribution of components in the leaflets of these structures. A fluid mosaic model describes this structure, which consists of a protein-embedded phospholipid bilayer. For 10 points, name this semi-permeable structure that separates cells from the outside world.**

ANSWER: **cell membrane** [or **plasma membrane**; prompt on **membrane**; prompt on **phospholipid bilayer**; do **NOT** accept or prompt on “cell wall”] (HK)

18. **For an adiabatic process, the change in internal energy minus the work done on the system equals this value, which is also the heat produced by the process. This value is the efficiency of a Carnot cycle whose two operating temperatures are equal. The wavefunction of an atomic orbital has this value at its (*) nodes. By definition, this is the enthalpy of formation of the elements in their standard states, and the reduction potential of the standard hydrogen electrode. This is the entropy change of a reversible process. An exothermic process has a change in enthalpy that is *less* than this number. For 10 points, what is the net charge of a neutral molecule?**

ANSWER: **zero** [prompt on **heat** before “heat” is read by asking “what is the numerical value of the heat produced in that process?”] (SE)

19. **This figure looks upon a boy “like one who knows all the answers and won’t tell” before being destroyed by him, ending up with a grin “six feet across.” Another child is called “an ignorant, silly little boy” and told “You knew, didn’t you? I’m part of you” by this figure before it induces a seizure in him. This figure repeats the phrase “We are going to have fun on this (*) island!” to a boy who is then mistaken for a monster and murdered by a group chanting “Cut his throat! Spill his blood!” That boy is Simon. This object’s creation is ordered by Jack as a sacrifice for the Beast. For 10 points, name this object, a pig’s head on a stick that titles a novel by William Golding.**

ANSWER: the **Lord of the Flies** [accept descriptions like the **pig’s head** on a stick or equivalents before mention; prompt on the **Beast** before mention] (MGS)

20. Since 2013, one-fifth of the seats of this country's advisory Shura Council have been reserved for women. Husa Sudairi's sons, known as the Sudairi Seven, formed a powerful political alliance in this country. This country's first leader defeated a rebellion of the Ikhwan ["ik-WAN"] militia at the Battle of Sabilla. This country, whose leaders have a "mutual support pact" with the Al ash-Sheikh (*) religious family, was formed in 1932 from the unification of the Kingdoms of Nejd ["naged"] and Hejaz. This country's royal family endorses the puritanical Wahhabi strain of Sunni Islam. For 10 points, the largest oil exporter in the world is what country ruled by King Salman from Riyadh?

ANSWER: Kingdom of Saudi Arabia [or Al-Mamlakah al-Arabiyyah as-Sa'ūdiyyah; or KSA] (HK)

Tiebreaker

Before it was banned, people jumped off of a 40-foot temple stage built during this era to have wishes granted if they survived. This era was the first in which elite women wore the twelve-layered *jūnihitoe* dress. Kukai founded a Tantric tradition during this era after returning from a foreign study trip he made with Saicho. This period ended when the Taira lost the Genpei War to (*) Minamoto no Yoritomo. Emperor Kanmu moved the capital from Nara at the start of this period, in which the Fujiwara clan was dominant. The Kamakura period followed, for 10 points, what period of Japanese history during which *The Tale of Genji* was written, based at the imperial capital Kyoto?

ANSWER: Heian period (HK)

Packet 5 Bonuses

1. The pretext for this conflict contested the Pragmatic Sanction of Charles VI. For 10 points each:

[10] Name this war in which Frederick the Great conquered Silesia from the Habsburg Empire. It was resolved by the Treaty of Aix-la-Chapelle [“ex-lah-sha-pell”] in 1748.

ANSWER: War of the **Austrian Succession**

[10] In the War of the Austrian Succession, Frederick II sought to enlarge the territory of this realm that he ruled. This kingdom eventually became the core of the German Empire.

ANSWER: **Prussia** [or Kingdom of **Prussia**; or Königreich **Preussen**]

[10] The changing interests of Britain, France, Prussia, and Austria as a result of the war caused this event, a swapping of traditional alliances.

ANSWER: **Diplomatic Revolution** of 1756 (LL)

2. A composer from this country wrote *Ten Woodland Sketches* beginning with “To a Wild Rose.” For 10 points each:

[10] Name this country. Amy Beach’s *Gaelic Symphony* was the first published by a woman from this country. Another composer from this country called for a “ragtime war” between two pianos in his *Central Park in the Dark*.

ANSWER: **United States** of America [or **U.S.**; or **USA**; accept **America**]

[10] This city’s symphony orchestra premiered Beach’s *Gaelic Symphony*. Serge Koussevitsky and Seiji Ozawa served as music directors of that orchestra, and this city is also home to an orchestra specializing in popular music.

ANSWER: **Boston** [accept **Boston** Symphony Orchestra or **Boston** Pops]

[10] *Gaelic Symphony* borrows from “Dark is the Night,” one of Beach’s works in this genre. Barber composed *Hermit* examples of these works, and one by Ives sets “General William Booth Enters Into Heaven” to music.

ANSWER: **songs** [accept art **song** or **song** cycle] (AY)

3. In one work, this physicist used statistical mechanics to argue for a “statistico-deterministic” view of molecular behavior and free will. For 10 points each:

[10] Name this physicist, who inspired a generation of biologists to investigate biophysics with his 1944 book, *What Is Life?*

ANSWER: Erwin **Schrödinger** [or Erwin Rudolf Josef Alexander **Schrödinger**]

[10] In *What Is Life?*, Schrödinger theorized that genetic information was encoded in an “aperiodic” one of these usually-periodic structures. Defects in these structures include dislocations and grain boundaries.

ANSWER: **crystals** [accept aperiodic **crystals**; prompt on lattices; prompt on solids]

[10] *What Is Life?* also addresses the fact that life arises despite the universe’s trend towards maximal entropy, noting that the biosphere is an open system, since this astronomical body provides a constant stream of light energy.

ANSWER: **Sun** (DM)

4. In literature, one of these entities’ names refers to an impossible-to-attain goal or hope. For 10 points each:

[10] Name these ghostly lights which appear above bogs and marshes of the British Isles to mislead travelers. Some origin myths hold that they are lantern-bearing souls of wicked men doomed to wander the earth for eternity.

ANSWER: **will-o’-the-wisps** [or **ignis fatuus** or **jack-o’-lanterns**; or **friar’s lanterns**; or **hinkypunks**; or **hobby lanterns**; or **pixy lights**]

[10] The ghostly lights of Japanese *funayurei* appear over this location on rainy days or new moons. Ryujin, a Shinto ruler of this location, owns a set of jewels that control its tides.

ANSWER: the **sea** [or **oceans**; accept any reasonable equivalent]

[10] In Finnish legends, the Aarnivalkea are lights that mark hidden stores of this substance belonging to fairies. The bristles of Frey’s boar, Gullinbursti, are made of this substance.

ANSWER: **gold** [accept **Golden Age**; prompt on treasure] (HK)

5. In Paul Beatty's *The Sellout*, the narrator easily surmises that the password to Foy Cheshire's gate is this number because the faux-intellectual Cheshire is "so...obvious." For 10 points each:

[10] Give this year in which an inebriated Union general "sadly...unbuckled his sword" in surrender in the alternate history story "If Grant Had Been Drinking at Appomattox."

ANSWER: **1865** [prompt on '65]

[10] This author wrote "If Grant Had Been Drinking at Appomattox." Mr. Martin pretends to be "coked to the gills" during a fake murder plot to get Mrs. Barrows fired in this author's story "The Catbird Seat."

ANSWER: James (Grover) **Thurber**

[10] This Brit wrote the oddly-titled alternate history story "If Lee Had NOT Won the Battle of Gettysburg." He won the 1953 Nobel Prize in Literature for "brilliant oratory" and works like *A History of the English-Speaking Peoples*.

ANSWER: Winston **Churchill** [or Winston Leonard Spencer **Churchill**] (DS)

6. This feline species was extinct in the Dinaric Alps until six individuals were reintroduced to Slovenia in 1973.

For 10 points each:

[10] Identify this species of wild cat, which is native to Eurasia and has a short tail and spotted reddish-brown fur. It shares its genus with the bobcat that is native to the Americas.

ANSWER: Eurasian **lynx** [or *Lynx lynx*]

[10] One of the largest populations of lynx in the Balkans is found in this European country, whose Mount Dinara names the Dinaric Alps. It contains the Dalmatian Coast on the Adriatic Sea.

ANSWER: **Croatia** [or Republic of **Croatia**; or Republika **Hrvatska**]

[10] Most of the lynx in Croatia are found in Plitvice ["plit-wit-seh"] Lakes National Park, which is near the border with this other Balkan country whose capital is Sarajevo.

ANSWER: **Bosnia** and Herzegovina [or **Bosna** i Hercegovina] (DR)

7. Inspired by the collective billions made by the MCU and DCEU, Netflix has recently tried its hand at making a superhero movie. For 10 points each:

[10] This film revolves around a pill that gives its users superpowers for five minutes. A drug dealer, a cop, and a former soldier team up in this film to stop nefarious agents from distributing the pill.

ANSWER: **Project Power**

[10] The protagonist of *Project Power* is Art, a former soldier on a quest to save his daughter. Art is played by this man, who also played the title role in *Django Unchained*.

ANSWER: Jamie **Foxx** [or Eric Marlon **Bishop**]

[10] Jamie Foxx has also played the supervillain Electro, a role he will be reprising in a 2021 film. Electro opposes this superhero, who has been played on the big screen by Tobey Maguire, Andrew Garfield and Tom Holland.

ANSWER: **Spider-Man** (ZA)

8. This figure sleeps behind a kneeling St. John the Baptist in a Parmigianino painting of his *Vision*. For 10 points each:

[10] Name this figure, whom Albrecht Durer painted in *the Wilderness*. Durer also depicted this saint in his study while a lion and dog sleep in the foreground.

ANSWER: Saint **Jerome**

[10] In a less peaceful instance of slumber, this Henry Fuseli painting depicts a disembodied horse's head emerging from red curtains as an incubus sits on a sleeping woman's chest.

ANSWER: *The Nightmare*

[10] The sleep of this faculty titles a Goya aquatint from *Los Caprichos* that depicts the artist himself slumped over at his desk and surrounded by bats and owls.

ANSWER: **Reason** [or **razón**; accept *The Sleep of Reason Produces Monsters* or *El sueño de la razón produce monstruos*] (SL)

9. This disorder has the highest mortality rate among all psychiatric disorders. For 10 points each:

[10] Name this disorder which comes in restricting and binge/purging subtypes. Unlike a similar disorder, this disorder's severity is *not* characterized by frequency of compensatory behavior.

ANSWER: **anorexia** nervosa [prompt on eating disorders or disordered eating; do **NOT** accept or prompt on "bulimia nervosa"]

[10] Some scholarship on eating disorders has concluded that while anorexia nervosa probably isn't this type of condition, bulimia nervosa is. These conditions like *latah* and *taijin kyofusho* are only found in specific societies.

ANSWER: **culture-bound** syndrome [or **culture-specific** syndrome; accept equivalents for "syndrome"]

[10] The study of cultural idioms of distress is one focus of the medical subfield of this broader "study of man" practiced by Margaret Mead, Ruth Benedict, and Zora Neale Hurston.

ANSWER: medical **anthropology** (HK)

10. This politician, with Kamenev and Stalin, prevented Trotsky's rise to power, only to fall to Stalin's First Great Purge alongside Kamenev. For 10 points each:

[10] Name this first head of the Communist International. He had earlier tried to stop the October Revolution to allow other socialist parties a voice.

ANSWER: Grigory Yevseyevich **Zinoviev**

[10] Zinoviev was the purported author of a forged letter in support of the UK's first Labour government. That government was led by Ramsay MacDonald for nine months during this decade.

ANSWER: **1920s** [prompt on 20s]

[10] Macdonald's first government was removed in a decisive victory by this party, aided both by the Zinoviev Letter and the complete collapse of the Liberal Party. This party currently controls the British Parliament.

ANSWER: **Conservative** Party [accept **Tory** Party or **Tories**] (DM)

11. Answer the following about the Oulipo, a postmodernist group of writers that seek to create literature using numerical and alphabetical constraints, for 10 points each.

[10] The Oulipo was founded by writers and mathematicians from this country. The artist Marcel Duchamp, an early member of the Oulipo, was also from this country.

ANSWER: **France**

[10] While not French, this author joined the group in 1968. Works by him like *Invisible Cities* show adherence to mathematical patterns, a common Oulipo form.

ANSWER: Italo **Calvino** [or Italo Giovanni **Calvino** Mameli]

[10] Georges Perec's Oulipo novel *La disparition*, translated into English as *A Void*, is best known for having this specific characteristic. Lipograms are works with a more general version of this trait.

ANSWER: it **doesn't have the letter e** [or descriptive equivalents; prompt on less specific answers like missing a letter] (MGS)

12. This man worked with Elias Boudinot to publish the *Phoenix* newspaper in New Echota. For 10 points each:

[10] Name this Christian missionary who was arrested in 1830 by state militia for living on Native American lands in violation of statute. He was defended in court by William Wirt.

ANSWER: Samuel (Austin) **Worcester**

[10] Worcester was a missionary among the Cherokee, who had earlier helped Andrew Jackson attack the "Red Stick" faction of this Native American tribe. This tribe's resistance ended after the Battle of Horseshoe Bend.

ANSWER: **Creek** War

[10] Later, members of both the Cherokee and Creek tribes were forcibly moved westward to Oklahoma in this decade-long event.

ANSWER: **Trail of Tears** (VS)

13. The fibrillin-1 mutation that causes Marfan syndrome is this type of mutation. For 10 points each:

[10] Name these kinds of mutant alleles whose gene products react antagonistically with the gene product of the wildtype.

ANSWER: **dominant negative** mutations [or **antimorphic** mutations]

[10] Dominant negative mutations, like those of this tumor suppressor gene named for its molecular weight, often result in cancer. Mdm2 negatively regulates this "guardian of the genome."

ANSWER: tumor protein **p53** [or **tp53**]

[10] Unlike p53 mutations, loss of function mutations associated with cancers tend to be inherited in this other way. Unlike dominant mutations, two copies of these mutations must be present in order for them to be expressed.

ANSWER: **recessive** mutations (HK)

14. Eating cheesecake, decorating with flowers, and reading from the Book of Ruth all might occur on this holiday in Ashkenazi households. For 10 points each:

[10] Name this holiday which commemorates Moses receiving Jewish scripture at Mt. Sinai.

ANSWER: **Shavuot** [accept **Feast of Weeks** or **Pentecost**]

[10] Shavuot is one of a group of Jewish holidays, along with Pesach and Sukkot, which required ancient Israelites to perform this action. Following the destruction of the Second Temple, this action is no longer obligatory.

ANSWER: making a **pilgrimage** [prompt on descriptions of traveling to Jerusalem or traveling to the Temple]

[10] Diaspora Jews may spend all night studying this text on Shavuot instead of making a pilgrimage. Today, a child's bar or bat mitzvah is typically the first time they read this sacred text before the congregation.

ANSWER: **Torah** (DR)

15. This woman's play *Love is the Greatest Labyrinth* revisits the story of Theseus and Ariadne. For 10 points each:
[10] Name this author of a poem about "Foolish men who accuse women without reason." This philosopher, composer, and nun also wrote a poem called "First Dream."

ANSWER: **Sor Juana Inés de la Cruz** [accept either underlined portion; prompt on partial answer; accept Juana Inés de **Asbaje** y Ramírez de Santillana]

[10] While Sor Juana is sometimes known as the Phoenix of Mexico, she's better known by this nickname. A much earlier poet with this epithet wrote a hymn to a "deathless" figure "of spangled mind."

ANSWER: **tenth muse** [or *la décima musa*; prompt on **muse**]

[10] Anne Carson's collection *If Not, Winter* translates and adapts surviving fragments by this original tenth muse from Lesbos. This woman wrote the aforementioned "Hymn to Aphrodite."

ANSWER: **Sappho** (HK)

16. This actor bounces around a boxing ring while the intermezzo from *Cavalleria Rusticana* plays in the opening credits of one movie. For 10 points each:

[10] Name this actor, who portrayed the boxer Jake La Motta in *Raging Bull*. This actor repeats the line "You talkin' to me?" while looking into the mirror in *Taxi Driver*.

ANSWER: Robert **De Niro** [or Robert Anthony **De Niro** Jr.]

[10] This Italian-American director of *Raging Bull* and *Taxi Driver* frequently collaborated with Robert De Niro.

ANSWER: Martin (Charles) **Scorsese**

[10] In the final scene of *Raging Bull*, De Niro delivers his "I coulda been a contender" monologue, quoting from this 1954 Elia Kazan crime film that stars Marlon Brando and was scored by Leonard Bernstein.

ANSWER: ***On the Waterfront*** (JR)

17. Nebulium is unfortunately not a real element. Answer the following about it anyway, for 10 points each.

[10] Nebulium was the name given to the elemental source of an unknown one of these entities emitted by the Cat's Eye Nebula. These features are used to determine the chemical composition of astronomical objects, such as by observing the characteristic "yellow doublet" of sodium.

ANSWER: **spectral** lines [accept **spectrums** or **spectra**; prompt on **emission** lines or **absorbance** lines]

[10] Nebulium's spectral lines were emission lines of this color. The Milky Way lies in the "valley" of this color that is at the center of a galaxy color-magnitude diagram.

ANSWER: **green**

[10] Nebulium turned out to be the doubly ionized form of this element. This element names a stellar fusion cycle along with carbon and nitrogen, its immediate predecessors on the periodic table.

ANSWER: **oxygen** [accept **O** III; prompt on **CNO** cycle] (DM)

18. Margaret Cavendish's book *The Blazing World* is considered a forerunner of this genre. For 10 points each:

[10] Name this literary genre that Pamela Sargent, another of its authors, dubbed the "literature of ideas." Mary Shelley's *Frankenstein* is an early work in this genre, which is often contrasted with fantasy.

ANSWER: **science fiction** [or **sci-fi**; prompt on **utopian** fiction or **speculative** fiction]

[10] Sci-fi can be separated into these *two* categories by realism, often typified by Larry Niven versus Ursula K. Le Guin. In fantasy, these two adjectives describe "magic systems" that are either vague, or with clear rules and limits.

ANSWER: **soft** AND **hard** [accept in either order; prompt on partial answers]

[10] Sci-fi critics often use this name for the 1930s-1940s era dominated by hard science fiction. During this period, John Campbell launched the careers of Asimov and Heinlein while editing *Astounding Science Fiction*.

ANSWER: **Golden Age** of Science Fiction (MGS)

19. This conflict began when Lord Ellenborough sought to establish a trade route to Bukhara. For 10 points each:
[10] Name this 19th-century diplomatic and political conflict that resulted in the creation of the Wakhan Corridor and the Durand Line on the northern border of British India.

ANSWER: **Great Game** [prompt on, but do **NOT** reveal, answers that mention Russia invading Afghanistan or Britain invading Afghanistan by asking “what broader conflict was that was part of?”; do **NOT** accept or prompt on “the Soviet Union invading Afghanistan” or equivalents]

[10] This modern-day country was the territory contested by Britain and Russia during the Great Game. In 1979 the Russian Empire’s successor state would go on to invade this country with capital at Kabul.

ANSWER: Islamic Republic of Afghanistan [or Jomhūrī-ye Eslāmī-ye Afgānestān; or Da Afgānistān Islāmī Jumhuriyat]

[10] One cartoon depiction of the Great Game reads “Save me from my friends,” and shows Afghanistan’s Sher Ali Khan boxed in by the British lion on one side and this other animal representing Russia to the other.

ANSWER: **bear** [accept Russian bear or Eurasian brown bear] (HK)

20. VSEPR [^{“vesper”}] theory assumes that pairs of electrons will repel each other as much as possible due to their negative charge. For 10 points each:

[10] VSEPR predicts that a compound adopts this molecular geometry when a central atom is bonded to two other atoms and has two lone pairs.

ANSWER: **bent** molecular geometry

[10] Bent molecules like water often have this property, in which an electronegativity difference makes one end slightly positive and the other slightly negative. Molecules with this property are often hydrophilic.

ANSWER: **polarity** [accept polar molecules]

[10] A set of five electron pairs will include two in axial positions and three in positions known by this word. This word and “axial” also identify the two inequivalent hydrogen positions on cyclohexane.

ANSWER: **equatorial** positions (MP)

Tiebreaker

William Webb postulated that the purpose of bannerstones was to improve the efficiency of atlatls. For 10 points each:

[10] The atlatl was a Pre-Columbian invention consisting of a shaft and a cup to hold one of these weapons, acting as a lever and improving their penetrative power. They served similar purposes as bows and arrows.

ANSWER: **spears**

[10] Along with thrown weapons, Pre-Columbian Meso-American warfare also utilized melee weapons such as the Macuahuitl, which had blades made either of chert or this material.

ANSWER: **obsidian**

[10] Pre-Columbian South American peoples such as the Kalinago and Yagua used this plant-extracted poison in blowguns and to tip arrows for hunting. It is a paralytic alkaloid that stops animals’ respiratory systems.

ANSWER: **curare** (JS)