

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.”

Written by Yale Student Academic Competitions (Zach Alvarez, Peter Cappaert, Jordan Davidsen, Stephen Eltinge, Michał Gerasimiuk, Mauricio Gonzalez-Sanchez, Hasna Karim, Sophie Lai, Louie Lu, Daniel Ma, Nathaniel Miller, Alisia Pan, Matt Pecoraro, Joshua Rothbaum, David Rubin, Matthew Siff, Varun Sikand, Daniel Sheinberg, Jeremy Sontchi, and Sebastian Torres) with Adam Fine, Michael Kearney, Olivia Murton, Annabelle Yang, and Bo You Edited by Jordan Brownstein, Jaimie Carlson, Stephen Eltinge, Adam Fine, Hasna Karim, Michael Kearney, Daniel Ma, Daniel Sheinberg, and Annabelle Yang, with contributions from Olivia Murton

Packet 10 Tossups

1. **One of these texts is grouped into “unclear” black parts and “clear” white parts. A sacred utterance from one of these texts is “given” to soon-to-be “twice-born” men during coming-of-age ceremonies. Unlike other similar texts considered *smṛiti*, these texts are considered “what is heard,” or *śruti*. These texts contain sections like (*) Aranyakas and Samhitas. Spells for healing jaundice and other magical formulas are found in the *Atharva* one of these texts, and instructions for offering ghee and cow milk to Agni in the form of the *yajna* fire are found in the *Yajur* one. For 10 points, name this set of four Sanskrit scriptures, the oldest of which is *Rig*.**

ANSWER: the Vedas [accept Vedic hymns; or Rigveda; or Atharvaveda; or Yajurveda] (HK)

2. **In one story, the “Memsahib” is urged not to attend this activity by the red-faced Wilson, with whom she has an affair. In another, Deutscher is elected over “that fool weakling Keith” because of a mistake made during this activity. One man doing this is obstructed by a (*) “native trick” from Uganda. That Cossack tells Rainsford that the usual form of this activity “had become too easy.” In another story, Eckels steps onto a butterfly after panicking at the sight of a *T. rex* and hearing “A Sound of Thunder” during this activity. While doing this activity, Francis Macomber is shot by his wife. For 10 points, General Zaroff believes that “Man” is “The Most Dangerous Game” of what activity?**

ANSWER: hunting [accept equivalents; accept a safari; prompt on “The Most Dangerous Game”; prompt on answers about time travel by asking “they are time traveling in order to participate in what activity?”] (DS)

3. **This dynasty’s namesake may have been invented by a usurper who overthrew a magus impersonating the king’s dead brother. A mirror for princes named “Education of [a ruler of this polity]” was written by a historian who served it in the Ten Thousand. Herodotus states that the stabbing of a sacred bull after conquering Egypt led to the death of this empire’s ruler (*) Cambyses II. After overthrowing the Median Empire, this empire began using the royal title “Shahanshah.” After this empire took Babylon, its first ruler had a “cylinder” inscribed that has been inaccurately termed the “first declaration of human rights.” For 10 points, name this empire ruled by Cyrus the Great.**

ANSWER: Achaemenid Empire [accept First Persian Empire] (DM)

4. **The oldest operational trumpets in the world, along with a meteorite iron dagger, were found in one of these structures. The bent-axis configuration of these structures gave way to linear axes. Four gilded wooden shrines enclosed a carved quartzite container inside one of these structures. Corbelled domes are used in *tholoi*, (*) beehive-shaped examples of these structures. A lapis-inlaid golden mask was removed from one of these sites, another of which contains anomalously high levels of mercury and contains 8,000 unique terracotta men and horses. For 10 points, name these structures intended to house the bodies of Qin Shihuang and Tutankhamun.**

ANSWER: tombs [or mausoleums; accept more specific answers like KV26, Tutankhamun’s tomb, funerary monument of Qin Shihuang; prompt on necropolis or necropoli; prompt on Valley of the Kings; prompt on graves; do **NOT** accept or prompt on “pyramids”] (HK)

5. **Glutathione-binding GST is added onto proteins to perform a pull-down assay using this technique. Proteins intended for one version of this procedure, which utilizes an imidazole buffer and nickel-NTA beads, are tagged with 6 histidine residues. Cat-ion and an-ion exchange resins can be used in a type of this procedure run on (*) columns. One liquid variety of this technique is run at high pressures. Adsorbent alumina or silica is used in a different version of this procedure, and a paper version of it can visualize different plant pigments. For 10 points, name this laboratory technique often used in protein purification, in which a stationary phase separates out components of a mobile phase.**

ANSWER: **chromatography** [accept specific types like column **chromatography**, ion-exchange **chromatography**, size-exclusion **chromatography**, affinity **chromatography**, high pressure liquid **chromatography** or **HPLC**, thin layer **chromatography** or **TLC**, or paper **chromatography**; prompt on protein purification before “alumina” is read] (HK)

6. **A song that credits an instance of this concept to “The Jokers” was written by Rick Derringer and is titled “[this concept], Hootchie Koo.” Jenny’s life is saved by this title concept in a Velvet Underground song. A Billy Joel song that asks “What’s the matter with the clothes I’m wearing?” is titled “It’s Still [this concept] (*) to Me.” Joan Jett’s only number-one hit extols this concept, telling the listener to “put another dime in the jukebox.” According to the band Kiss, they “want to [do this thing] all night, and party every day.” Elvis Presley was the self-described “king” of, for 10 points, what three-word music genre that Bill Haley wanted to perform “Around the Clock”?**

ANSWER: **rock and roll** [accept **rock ‘n’ roll**; accept “**Rock and Roll**, Hootchie Koo” or “It’s Still **Rock and Roll to Me**” or “I Love **Rock ‘n’ Roll**” or “**Rock and Roll** All Nite”]; prompt on rock music] (MP)

7. **This author describes a woman with “strawberry lips” who knows how to “bury old conscience till he’s dead” in “Metamorphoses of a Vampire.” This man depicts the Queen of Spades and the Jack of Hearts “darkly” discussing “dead loves” in a poem titled for the organ of black bile and melancholy. In the introduction to one collection, this poet catalogues (*) “Folly, error, sin, avarice” and later invokes Satan Trismegistus as well as another “wicked” figure who would, “in a yawn, swallow the world”; that figure is “Ennui.” Several poems of “Spleen” are by, for 10 points, what French poet who called the reader a “hypocrite” in his scandalous *The Flowers of Evil*?**

ANSWER: Charles (Pierre) **Baudelaire** (MGS)

8. **This was the largest country in which descendants of Hisham II and Almanzor fought a civil war that led to the creation of the *taifa* kingdoms. Tariq ibn Ziyad began an invasion of this country that was halted by Pelagius at the Battle of Covagonda, but not before it overthrew the Visigothic Kingdom. Though their main power centers were to its south, the (*) Almohad and Almoravid dynasties ruled this country and called it Al-Andalus. Boabdil was expelled from the Alhambra in 1492 at the end of this modern country’s *Reconquista*. For 10 points, name this country that was unified when Ferdinand and Isabella merged the kingdoms of Castile and Aragon.**

ANSWER: Kingdom of **Spain** [or Reino de **España**] (DM)

9. **In Book I of the *Fasti*, this deity explains why he is the first to receive incense and wine and recalls the arrival of Saturn in Latium. This deity gives a hawthorn to a nymph named Cardea after he assaults her. This father of Fontus and husband of Juturna repulses a contingent guided by Tatius by causing boiling, sulphurous water to erupt from (*) fountains. This deity was frequently depicted holding a staff and a key. The gates to this god’s temple were kept open during wartime and closed during times of peace. For 10 points, name this two-faced Roman god of doorways and namesake of the first month of the year.**

ANSWER: **Janus** (VS)

10. The devilish last section of a work of this type features triplets alternating between E and a rising arpeggiated line from A to the next E; that section is so difficult that the composer drank before performing it. Emmanuel Chabrier wrote an orchestral piece of this type named for *España*. The seventh variation in one of these pieces introduces the (*) Dies Irae theme. That one of these pieces presents a D flat major inversion of the A minor theme in its eighteenth variation. Paul Whiteman's band premiered another of these pieces in a concert entitled "An Experiment in Modern Music." For 10 points, a clarinet glissando opens a Gershwin piece of what type "in Blue"?

ANSWER: **rhapsody** [accept *España*, **Rhapsody** for Orchestra; or **Rhapsody** on a Theme of Paganini; or **Rhapsody** in Blue; or Hungarian **Rhapsodies**] (first clue refers to the 24th variation from *Rhapsody on a Theme of Paganini*) (JR)

11. A proton and one of these structures move to new positions in keto-enol tautomerization. Markovnikov's rules most commonly describe additions across these structures. Strongly basic, weak nucleophiles favor E2 reactions that produce these structures. E-Z isomers result from these structures' (*) rigidity, which locks constituent atoms in-plane. A functional group containing one of these structures has a characteristic $2n$ hydrogens for every n carbons. Diatomic oxygen contains one of these structures consisting of a sigma bond and a pi bond linking two sp^2 ["s-p-two"]-hybridized atoms. For 10 points, name this kind of bond denoted by two parallel lines between atoms.

ANSWER: **double bonds** [accept specific answers like carbon-carbon **double bonds**; accept **pi bonds** before "pi" is read; prompt on covalent **bonds**; prompt on **carbon-carbon bonds**; prompt on **alkenes** or **carbonyls** by asking "what kind of bond characterizes them?"] (MP)

12. Thousands of petroglyphs of stylized turtles are visible on this country's Ometepe Island, which is also home to the volcanoes Maderas and Concepción. This country's Corn Islands lie in an autonomous region whose capital is named for the Dutch pirate Abraham Blauvelt. The Tipitapa River periodically connects this country's bull-shark-containing namesake lake, also called (*) Cocibolca, to a lake named for its capital. This country's Miskito Coast is named for an African-Native indigenous group whose members also live in its northwestern neighbor Honduras. For 10 points, name this Central American country home to Lake Managua.

ANSWER: **Nicaragua** [or Republic of **Nicaragua**; or República de **Nicaragua**; accept Lake **Nicaragua**] (HK)

13. In a work of this type, red letters spell out "He must increase, but I must decrease" beside John the Baptist, who points to a lesion-covered Christ. A demon in a window lurks over St. Anthony's shoulder in that work of this type, in a likely allusion to ergotism. St. Cecilia plays the organ in another of these works flanked by a nude Adam and Eve. One section of that work, the (*) *Just Judges*, was stolen during World War II. That work of this type centers around an octagonal fountain below angels who kneel around a chalice as it fills with blood from a *Mystic Lamb*. For 10 points, give this type of paneled religious artwork, one of which was created by Hubert and Jan van Eyck in Ghent.

ANSWER: **altarpieces** [accept Isenheim **Altarpiece** or Ghent **Altarpiece**; prompt on **polyptychs**] (SL)

14. The "800 Heroes" stalled an invasion of this city at its Sihang Warehouse. The National Republican Army perpetrated an April 1927 "massacre" of communists named for this city. The January 28th Incident in this city foreshadowed a three-month battle here in 1937 that involved a million soldiers and was won by the Imperial Japanese Army. This (*) non-colonial city partially names the HSBC bank. Three members of the Gang of Four were party officials in this city, which was the endpoint of Deng Xiaoping's 1992 southern tour. For 10 points, name this city at the mouth of the Yangtze River, the most populous in China.

ANSWER: **Shanghai** (DM)

15. The narrator of a story by this author finds pages from *The Brothers Karamazov* in his copy of *Crime and Punishment* and asks, “Isn’t there someone kind enough to strangle me in my sleep?” after the title objects block his vision. In another short story by this man, a woman justifies her stealing to survive by saying that the victim used to pass off (*) snake meat as fish. This author of “Cogwheels” wrote a story in which a servant steals the clothes of an old woman collecting hair from corpses, as well as one in which a bandit and a spirit medium give conflicting accounts of a samurai’s death. For 10 points, name this author of “In a Grove” and “Rashomon.”
ANSWER: Ryūnosuke Akutagawa [accept names in either order] (DS)

16. Philosophy without this concept is compared to a dystopia where science has been destroyed in an Alisdair MacIntyre book titled “After [this concept].” Elizabeth Anscombe’s “Modern Moral Philosophy” revived a branch of ethics named for this concept, which is contrasted with deontology and utilitarianism. Happiness is “an activity of the soul in accordance with” this concept according to a thinker who used the word *arete* for this concept. (*) Aristotle’s *Nicomachean Ethics* defines these traits as the “golden mean” between two extremes and lists examples of these traits such as courage and temperance. For 10 points, name these traits of moral excellence contrasted with vices.

ANSWER: virtues [accept excellences, virtue ethics, or *After Virtue*; or *arete* until “arete” is read; prompt on character, character traits or other general definitions of virtue such as goodness] (VS)

17. In aerodynamics, a type of this quantity has a value per unit length equal to density times velocity times circulation, according to the Kutta–Joukowski [“zhoo-KOV-skee”] theorem. Variable-mass systems exhibit another type of this quantity equal to exhaust velocity times mass flow rate. The line integral of this quantity depends only on the start and end points if it is (*) conservative. Multiplying this quantity by the displacement gives the work done. This vector quantity is the time derivative of linear momentum, and it is the sum of terms that are drawn as lines on free body diagrams. For 10 points, name this quantity that is equal to mass times acceleration according to Newton’s second law.

ANSWER: forces [accept lift before “exhaust” is read; accept thrust before “start” is read] (SE)

18. Lydia Darragh is best known for engaging in this activity in Philadelphia. A journal written by Consider Tiffany details the arrest of a man engaging in this activity. James Jay invented a tannic-acid-based “sympathetic stain” for use in this activity. Men called “Samuel Culper, Sr.” and “Samuel Culper, Jr.” participated in this activity. John (*) André headed an organization dedicated to this activity. A Yale graduate best known for performing this activity reportedly declared “I only regret that I have but one life to lose for my country.” Nathan Hale was hanged after he was caught performing, for 10 points, what clandestine activity that often involves ciphers?

ANSWER: spying in the American Revolution [accept spying for the United States or Britain; accept equivalents such as espionage] (VS)

19. In this novel, a gambling addict who mourns his wife Frances is wounded by his own knife-gun while trying to kill the mortgage-holder of his estate, allowing the latter’s wife to flee. Years after flinging hot applesauce at a rival for insulting his hair, this novel’s protagonist raises the illiterate (*) Hareton with the help of the servant Joseph. This novel’s first narrator has a nightmare in which the ghost of the girl who married Edgar Linton grabs him through a window. That narrator of this novel, Mr. Lockwood, hears most of the story from Thrushcross Grange’s housekeeper, Nelly Dean. For 10 points, Catherine Earnshaw declares “I *am* Heathcliff” in what only novel by Emily Brontë?

ANSWER: Wuthering Heights (DS)

20. **This planet has unusually large pit-floor craters which provide evidence of possible past volcanism. At two specific spots on this planet's equator, the sun appears to reverse direction twice every day. That phenomenon occurs due to this planet's 3 to 2 spin-orbit resonance, which causes one solar (*) day to equal exactly two of its years.** The *MESSENGER* spacecraft crashed into this planet in 2015, and this planet will be visited by BepiColombo in 2025. Observing the precession of this planet's perihelion provided the first experimental verification of general relativity. For 10 points, identify this planet, the smallest in the Solar System and the closest to the Sun.

ANSWER: **Mercury** (DR)

Tiebreaker

After hearing that his lover died falling off a horse, this work's narrator learns that she'd had affairs with several girls from Balbec. The tailor Jupien runs a male brothel in this novel serving his lover, a decadent baron. A motif from the "Vinteuil Sonata" in this work comes to symbolize a man's relationship with the courtesan (*) Odette de Crécy. This work begins with the line "For a long time I would go to bed early," and its narrator remembers little of his life in the town of Combray until he is reminded while eating a cake soaked in lime-blossom tea. For 10 points, the "madeleine episode" appears in *Swann's Way*, the first volume of what massive novel by Marcel Proust?

ANSWER: ***In Search of Lost Time*** [accept ***Remembrance of Things Past***; accept ***À la recherche du temps perdu***; prompt on ***The Fugitive*** or ***Time Regained***; prompt on ***Swann's Way*** before mention] (MGS)

Packet 10 Bonuses

1. Robert Wilson and Paul Milgrom were awarded the 2020 Nobel Prize in Economics for their contribution to a theory named after these events. For 10 points each:

[10] Name these events which come in English and Dutch varieties. William Vickrey names one form of these events in which goods are sold to the highest bidders.

ANSWER: **auctions**

[10] Wilson and Milgrom's Simultaneous Multi-Round Auction format has been used by governments to sell rights to this category of non-excludable goods, which tend to be subject to the free-rider problem.

ANSWER: **public** goods

[10] This economist came up with a theory for optimal allocation of public goods. He was the first American to win the Nobel Prize in Economics, and is known for the textbook he authored with William Nordhaus, titled *Economics*.

ANSWER: Paul (Anthony) **Samuelson** (BY)

2. A 2006 reboot of this franchise starred Steve Martin as its bumbling police protagonist. For 10 points each:

[10] Name this comedy movie franchise. Inspector Clouseau recovers this series' eponymous fictional diamond in its first installment, which was released in 1963.

ANSWER: *The **Pink Panther***

[10] This English actor originated the role of Inspector Clouseau. He exclaimed, "You can't fight in here! This is the War Room!" as President Merkin Muffley in the Cold War black comedy *Dr. Strangelove*.

ANSWER: Peter **Sellers** [or Richard Henry **Sellers**]

[10] The *Pink Panther* theme was composed by this man, who also composed "Moon River" for *Breakfast at Tiffany's* and "A Time for Us" for *Romeo and Juliet*.

ANSWER: Henry (Nicola) **Mancini** [or Enrico Nicola **Mancini**] (DS)

3. During this election, a candidate was unfairly attacked by the "Swift Boat Veterans for Truth" for his time serving in Vietnam. For 10 points each:

[10] Name this election, in which a ticket featuring North Carolina senator John Edwards lost marginally to the incumbent president.

ANSWER: United States presidential election of **2004** [prompt on '04]

[10] This man was the incumbent and victor in the 2004 election. This man signed the No Child Left Behind Act and served during the 9/11 attacks.

ANSWER: George **Walker Bush** [accept **Dubya** or **Bush 43** or **Bush the Younger**; prompt on George **Bush**; do **NOT** accept or prompt on "George H. W. Bush" or "George Herbert Walker Bush"]

[10] This former governor of Vermont partly failed to secure the Democratic nomination in 2004 because he screamed "EEYAH" in excitement after a third-place finish in the Iowa caucuses.

ANSWER: Howard **Dean** [or Howard Brush **Dean III**] (MP)

4. In this painting of two warring armies, a tablet suspended in the sky identifies the combatants and details the conflict's casualties. For 10 points each:

[10] Identify this Albrecht Altdorfer painting, created at the behest of Duke William IV of Bavaria, which depicts a victory over the Persian army near the Mediterranean Sea.

ANSWER: *The **Battle of Issus*** [or *The **Battle of Alexander at Issus***; or *Die **Alexanderschlacht***]

[10] Altdorfer pioneered "pure" forms of these paintings, as in his depiction of a footbridge in the Danube Valley. Altdorfer also specialized in sunset lighting in these paintings, which typically focus on the natural environment.

ANSWER: **landscape** paintings

[10] Nine of Altdorfer's landscapes were completed using this technique, including his *Landscape with a Double Spruce*. This technique uses acid to incise images onto a wax-covered metal plate.

ANSWER: **etching** (SL)

5. A contest to "compose the opening sentence to the worst possible of all novels" was inspired by this phrase, which has become a comic cliché for bad writing. For 10 points each:

[10] Give this 7-word-phrase penned by Edward Bulwer-Lytton to set the scene of his novel *Paul Clifford*.

ANSWER: "**It was a dark and stormy night**"

[10] This author used "It was a dark and stormy night" in the story "Bon-Bon." The first sentence of this man's "The Fall of the House of Usher" describes "a dull, dark, and soundless day" "when the clouds hung...low."

ANSWER: Edgar Allan **Poe**

[10] A novel by this author begins with the line "It was a dark and stormy night" before three women arrive at Meg's house. This Christian author wrote *A Swiftly Tilting Planet* and *Many Waters*.

ANSWER: Madeleine **L'Engle** [or Madeleine **L'Engle** Camp] (MGS)

6. In air navigation, the "1 in 60 rule" states that a one-degree error in heading will lead to being one mile off-course after traveling for 60 miles. For 10 points each:

[10] The rule uses two approximations: first, that one degree is roughly one-sixtieth of a radian, and second, that this trigonometric function equals its argument. In a right triangle, this function equals "opposite over hypotenuse."

ANSWER: **sine** function

[10] In physics, this is the term for common equation-simplifying approximations like "sine theta equals theta" and "cosine theta equals one minus theta-squared over 2."

ANSWER: **small-angle** approximations [accept **paraxial** approximations]

[10] The small-angle approximation simplifies the "sine of a sine" intensity profile observed in this process.

Approximations for this process may assume that " a -squared over lambda L " is either very large or very small.

ANSWER: **diffraction** [accept single-slit **diffraction** or Fraunhofer **diffraction** or Fresnel **diffraction** or far-field **diffraction** or near-field **diffraction**] (DM)

7. This political party that was formed in the aftermath of the 8888 ["eight-eight-eighty-eight"] Uprising was declared illegal by a military junta in 2010. For 10 points each:

[10] Name this party. In November 2020, this political party secured 346 seats of its country's Assembly of the Union, more than the 322 needed to form a government.

ANSWER: **National League for Democracy** [or **NLD**]

[10] The National League for Democracy's victory sparked a military coup in this country. A viral video depicted an unwitting athletics instructor dancing in this country's capital, Naypyidaw, as the coup took place in the background.

ANSWER: **Myanmar** [or **Burma**; or Republic of the Union of **Myanmar**; or Union of **Burma**; or Pyidaunzu Thanmāda **Myāma** Nainngandaw]

[10] The military deposed this State Counselor of Myanmar and Chairperson of the National League for Democracy. This winner of the 1991 Nobel Peace Prize has been criticized for Myanmar's treatment of Rohingyas.

ANSWER: Aung San **Suu Kyi** [do **NOT** accept or prompt on "Aung" or "Aung San"] (HK)

8. Humpback whales that defend other species from orca attacks display this behavior. For 10 points each:

[10] Give this term for behaviors that increase another organism's fitness at the expense of one's own.

ANSWER: **altruism** [accept word forms]

[10] This forerunner of sociobiology names a rule that predicts kin selection via altruistic behavior if the behavior's cost to the individual is less than Wright's coefficient of relatedness times the benefit to the recipient.

ANSWER: W. D. **Hamilton** [or William Donald **Hamilton**; or Bill **Hamilton**; accept **Hamilton**'s rule]

[10] Hamilton also explained "extraordinary" ratios of this trait, like those found in wasps, that diverge from the 1:1 ratio predicted by Fisher's principle. It's mostly determined by X and Y chromosomes in humans.

ANSWER: **sex** [do **NOT** accept or prompt on "gender"] (HK)

9. A 1959 review by M. L. Rosenthal was the first to use the term "confessional" to describe this man's poetry. For 10 points each:

[10] Name this American poet of *Life Studies* and the first of the Confessional Poets. A poem in that collection says "I myself am hell" and bemoans "nobody's here" after the narrator hears "a car radio bleat."

ANSWER: Robert **Lowell** [or Robert Traill Spence **Lowell** IV]

[10] Another of Lowell's collections, *For the Union Dead*, centers on his childhood in *this* state. Henry David Thoreau wrote about living near a pond in this state in *Walden*.

ANSWER: **Massachusetts**

[10] One of Lowell's ancestors, James Russell Lowell, was a member of this other school of poetry. These poets, including Longfellow and Whittier, were named for the household location in which their poems were usually read.

ANSWER: **fireside** poets (MGS)

10. The name "Geunhwahyang," or "land of the mugunghwa," was adopted by one historical kingdom of this region. For 10 points each:

[10] The mugunghwa is also known as the "rose of Sharon" or "[this region's] rose." After Japanese rule ended in 1945, the part of this region south of the 38th Parallel adopted the *mugunghwa* as its national flower.

ANSWER: **Korean** Peninsula

[10] With Goguryeo and Baekje, this kingdom that called itself Geunhwahyang was one of Korea's three kingdoms. A pseudo-military unit in this kingdom was the *hwarang*, its "flowering knights."

ANSWER: **Silla** [accept Unified **Silla** or Later **Silla**]

[10] The *Hwarang* were preceded by the *Wonhwa*, or "original flowers," who possessed this trait. Another military unit with this trait was the USSR's "Night Witches," nicknamed for the broomstick-like sound of their planes.

ANSWER: being **women** [accept any equivalents] (HK)

11. Jean-Baptiste Carpeaux's sculpture of women surrounding the spirit of Dance for this building shocked the public so badly that a bottle of ink was thrown on the sculpture. For 10 points each:

[10] Name this building, for which Albert-Ernest Carrier-Belleuse designed female torchères flanking a grand staircase. Chagall paintings of mainly blue, white, green, red, and yellow surround a chandelier in this building.

ANSWER: **Paris Opera** House [accept **Palais Garnier** or **Opera Garnier**]

[10] This man chose the site for the Paris Opera, and led Parisian renovations by the appointment of Napoleon III. His other projects included widening boulevards to prevent the erection of revolutionary barricades.

ANSWER: Baron **Hausmann** [or Georges-Eugène **Hausmann**]

[10] Hausmann redesigned the Place de l'Étoile, where one of these structures commemorates the victories of Napoleon I. Eero Saarinen designed a catenary-shaped one of these structures in St. Louis.

ANSWER: **arches** [accept **Arc** de Triomphe or Gateway **Arch**] (MGS)

12. The centenarian artist Whang-od is the last practitioner of a Kalinga version of this art. For 10 points each:

[10] Name this art form exemplified by the Maori *tā-moko*, in which ink is inserted into the skin to leave permanent marks.

ANSWER: **tattooing**

[10] Women of this North African nomadic group were once tattooed for protection and beauty from a young age. While still extant in rural areas, the practice has largely died out due to Islamization and French occupation.

ANSWER: **Berber**s [or i-**Mazigh**-en]

[10] Hovak Johnston is reviving the traditional tattooing practices of this other indigenous people, whose women's hand tattoos honor Sedna's chopped fingers and forehead tattoos honor their entrances to womanhood.

ANSWER: **Inuit** people [do **NOT** accept or prompt on "Eskimo"] (HK)

13. *Kinnickinnick* refers to the red willow that the Ojibwe use to produce this substance. For 10 points each:

[10] Name this substance, which emerges from an object given by White Buffalo Calf Woman to carry messages to the Great Spirit, *Wakan Tanka*. Certain objects producing this substance were also used to seal peace treaties.

ANSWER: **smoke** [prompt on **tobacco**]

[10] Pipe-smoking accompanies sacred rites belonging to this Native American people. Ghost Dance practitioners of this people were massacred at Wounded Knee.

ANSWER: **Lakota** [or Teton **Sioux**]

[10] This other substance is produced in the first sacred rite of the Lakota, during the *Inipi* purification ceremony. This substance is produced in dome-shaped, namesake buildings in that ceremony.

ANSWER: **sweat** (AY)

14. Despite being invertebrates, small species of squid are occasionally considered to belong to this non-scientific grouping of "fish" due to their abundance and status as a common prey source. For 10 points each:

[10] Identify these fish, which are often oily, cluster in large schools, and serve as prey for larger, more commercially important ocean life. Examples include anchovies and herring.

ANSWER: **forage** fish [accept **bait** fish]

[10] Forage fish are increasingly endangered due to this practice. In 2015, California sardine populations collapsed due to this phenomenon, the removal of fish from an area at an unsustainable rate.

ANSWER: **overfishing** [accept **overharvesting**; prompt on **fishing** or **harvesting**]

[10] This fishing practice can lead to overfishing of bait species, since this practice typically has high rates of bycatch. This process refers to catching fish by casting a net behind a boat, rather than by using a rod and bait.

ANSWER: **trawling** [accept word forms; accept specific types like bottom **trawling**] (DR)

15. Answer the following about non-Shakespearean formulations of *theatrum mundi*, the idea that “All the world’s a stage,” for 10 points each.

[10] This author’s *The Great Theatre of the World* offers a conception of *theatrum mundi* which sees God as the divine playwright. In another of this man’s plays, life is called a frenzy, an illusion, a shadow, and a fiction.

ANSWER: Pedro **Calderón** de la Barca [or Pedro **Calderón** de la Barca y Barreda González de Henao Ruiz de Blasco y Riaño; prompt on de la Barca] (The unnamed play is *Life is a Dream*.)

[10] This playwright of *The Good Woman of Setzuan* was partial to judgment scenes that transfer the spectating judge role once held by God to the audience. He’s known for his use of the estrangement effect in learning plays.

ANSWER: Bertolt **Brecht** [or Eugen Bertolt Friedrich **Brecht**]

[10] Samuel Beckett, often considered Brecht’s antithesis, echoes older ideas of the God-spectator in this play when Vladimir observes a sleeping Estragon and says “At me too, someone is looking...saying...let him sleep on.”

ANSWER: ***Waiting for Godot*** [or ***En attendant Godot***] (HK)

16. Answer the following about the early history of a country created in the 1919 Treaty of Versailles, for 10 points each.

[10] Give this country named for its main two ethnicities. Those two ethnicities now have their own nation-states with capitals at Prague and Bratislava.

ANSWER: **Czechoslovakia** [or **Československo**; do **NOT** accept or prompt on “Czech Republic” or “Czechia” or “Slovakia”]

[10] This co-founder of Czechoslovakia served as its first president, governing until 1935, and was hailed as its “President Liberator.”

ANSWER: Tomáš (Garrigue) **Masaryk**

[10] The Czechoslovak one of these military units had to seize the Trans-Siberian Railway to evacuate from Russia after WWI. A “Condor” one of these units developed strategic bombing tactics during the Spanish Civil War.

ANSWER: **legion** [accept Czechoslovak **Legion** or Condor **Legion**] (LL)

17. These creatures serve as a stock symbol of exile in the poetic tradition of one country. For 10 points each:

[10] Name these creatures. In the *Odyssey*, Penelope knows that her husband will soon return home after a prophetic dream in which an eagle descending from a mountain slaughters twenty of these birds.

ANSWER: **geese** [or **goose**]

[10] One of the first classical poems learned by children of this country starts with the line, “Goose, goose, goose” and describes “white feathers on the emerald water.” That poem is by Luò Bīnwáng, a Tang poet of this country.

ANSWER: **China** [or **Zhongguo**]

[10] Mary Oliver’s poem “Wild Geese” opens by telling the reader that “You do not have to be [this concept].” Gwendolyn Brooks’ “The Bean Eaters” describes the title pair as “Two who are Mostly [this concept].”

ANSWER: **good** [accept “You do not have to be **good**” or “Two who are Mostly **Good**.”] (MGS)

18. The first of these pieces was featured in a Young People's Concert by Leonard Bernstein, who called Glenn Gould and the composer of these pieces "a kind of legendary combination." For 10 points each:

[10] Name these pieces by a German composer for orchestra and a certain solo instrument with plucked strings, the first of which, in D minor, begins with a tutti unison of the theme.

ANSWER: **Bach harpsichord concertos** [accept **keyboard** for "harpsichord"; prompt on partial answers; do **NOT** accept or prompt on "piano concertos"]

[10] Glenn Gould also played the fifth piece of this Bach concerto collection on CBC TV using his harpsipiano. This six-concerto collection was written for a Margrave of the namesake region.

ANSWER: **Brandenburg** Concertos

[10] The fifth Brandenburg Concerto is not considered a true harpsichord concerto because the harpsichord is part of a concertino with a flute and this other instrument. Bach wrote a D minor double concerto for this instrument.

ANSWER: **violin** (DM)

19. This event occurred on July 1, 1997 under the government of Tony Blair. For 10 points each:

[10] Name this event, which many say marked the end of the British Empire. Following it, a colonial constitution was replaced by the Basic Law and a promise of fifty years of autonomy. A description is fine.

ANSWER: **handover** of **Hong Kong** to China [accept **return** for "handover"; accept anything indicating the British **transferring** or **losing** power over **Hong Kong**]

[10] This Conservative prime minister negotiated the terms for the handover of Hong Kong in the 1980s. She was often called the "Iron Lady" for her strong policymaking and implementation of conservative ideologies.

ANSWER: Margaret (Hilda) **Thatcher**

[10] The Sino-British Joint Declaration agreed that this neighborhood had to be demolished, and it was in 1993. One of the most densely populated areas in the world, it was ungoverned by both countries and effectively run by triads.

ANSWER: **Kowloon Walled City** [accept **Jiulong Chéng Zhài** or **Gaulung Sing Zaai** or **Giulong Cai Sang**; prompt on partial answers] (DM)

20. Most calculations of this quantity ignore electrons since they are so small. For 10 points each:

[10] Name this quantity roughly equal to the number of protons and neutrons in an atom. This quantity varies for different isotopes of an element.

ANSWER: **atomic mass** [accept **atomic mass** unit; prompt on **AMU**]

[10] Atomic mass is often given in terms of the Dalton, which is based on the mass of this specific isotope of a certain element.

ANSWER: **carbon-12** [prompt on **carbon**]

[10] Because both of these chlorine isotopes are stable, scientists give atomic weights as weighted averages of the different atomic masses of each element's various isotopes. Name both stable isotopes of chlorine.

ANSWER: chlorine-**35** AND chlorine-**37** (MP)

Tiebreaker

Answer the following about thermodynamics' second-favorite approximation, Trouton's rule, for 10 points each.

[10] Trouton's rule is used to estimate this value for the vaporization of various liquids. Symbolized S , this quantity measures the disorder in a system.

ANSWER: **entropy**

[10] Trouton's rule predicts that the entropy of vaporization is roughly 10.5 times this constant. Before the 2019 redefinition of SI units, this constant was the speed of sound in argon at the temperature of water's triple point.

ANSWER: **gas constant** [accept **R** ; accept **ideal gas constant** or **universal gas constant** or **molar gas constant**]

[10] These interactions are the most frequent cause of deviations from Trouton's rule. These interactions explain why chloroform and benzene follow Trouton's rule, while formic acid does not.

ANSWER: **hydrogen** bonds [or **H-bonds**; prompt on dipole-dipole attraction or dipole-dipole interactions or similar answers; prompt on H] (MP)