

2023 ACF Regionals

Packet A by CWRU A, Harvard A, Maryland A, Toronto B

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Tossups

1. *Note to moderator: Read the answerline carefully.*

A simplified, secular form of this practice is nicknamed “the 24.” Arthur Rosenfeld hosted a PBS program that instructed this practice for longevity and taught that chewing food 36 times can enhance the sensitivity, or “listening power,” outlined in this practice’s “classics.” The last Saturday in April is a worldwide holiday for this practice, whose methods of silk reeling and pushing hands may be attributed to its legendary inventor Zhāng Sānfēng (“jahng sahn-fung”) of the Wūdāng (“oo-dahng”) Mountains. The Sūn (“swun”) and Yáng lineages are two of the five major styles of this type of nèijiā (“nay-j’yah”), which originated in Chén (“chun”) Village. Unlike repetitive qìgōng (“chee-gong”), this balance-promoting practice’s “frames” link up to 108 specific postures. For 10 points, the elderly in Kowloon Park often perform what internal martial art whose routines feature slow movements?

ANSWER: **tai chi** [or **tàijíquán** or **t’ai chi** ch’üan; accept **shadowboxing**; prompt on Chinese **martial arts** until read; prompt on **wūshù** or **guóshù** or **kuoshu**; prompt on **exercise** or **physical activity** or **meditation**; prompt on **nèijiā** or **nèigōng** or **nèijing** until “nèijiā” is read; prompt on **qìgōng**, **ch’i kung**, **chi gung**, or **chi ‘ung** until “qìgōng” is read; prompt on **Wūdāng** quán until read; prompt on traditional **Chinese medicine** or **TCM** or **Zhōngyī**; reject “boxing”]
<Religion>

2. A man of this profession locks up his daughter after he finds her in a forest, but relents in terror when her love Jasper pretends to be a ghost. A “Citizen” inserts a “Knight of the Burning Pestle” into a play titled for this profession in a Francis Beaumont comedy, which likely inspired a tragedy titled for this profession by George Lillo. A man of this profession is called a “fawning publican” in a scene in which he remarks that “the devil can cite Scripture for his purpose.” In that play titled for this profession, a woman praises a “twice blest” virtue that “droppeth as the gentle rain from heaven.” In that play, a man of this profession loses his ships at sea and is thus put on trial for a pound of flesh. For 10 points, Antonio has what title profession in a Shakespeare comedy that features the moneylender Shylock?

ANSWER: **merchant** [or equivalents such as **vendor** or **seller** or **trader**; accept *The Merchant of Venice*; accept *The London Merchant*; prompt on **businessman** or **entrepreneur** or **shop owner**; reject “moneylender”]
<British Literature>

3. This country’s New Forces coalition retained control of its “comzones” after the Linas–Marcoussis (“lee-NAHSS mar-ko-SEE”) Accords. A president of this country names a UNESCO Peace Prize. The candidate for Rally of the Republicans was disqualified in this country’s rigged 1995 elections, which were easily won by Henri Konan Bédié. A soccer match held in this country’s rebel-controlled city of Bouaké eased tensions during its civil war fought between supporters of Guillaume Soro and Laurent Gbagbo (“lo-RAWN guh-BAG-bo”). After 1978, a drop in cocoa prices destroyed this country’s economic “miracle,” which was attributed to a leader whose foreign policy pursued Françafrique (“frawn-sah-FREEK”). This country’s enormous Basilica of Our Lady of Peace was built under Président Félix Houphouët-Boigny (“oo-FWAY bwan-YEE”). For 10 points, what West African country’s current leader Alassane Ouattara governs from Yamoussoukro?

ANSWER: **Côte d’Ivoire** [or **Ivory Coast**; or Republic of **Côte d’Ivoire** or République de **Côte d’Ivoire**; prompt on the First **Ivorian** Civil War or “**Ivorian** miracle”]
<World History>

4. A philosopher's defense of these people is critiqued as overly scientific in a chapter titled for them "as Subject and as Representation." In an essay titled for these people, György Lukács ("George LOO-kotch") introduced his theory of "reification." Riffing on Hegel, a philosopher called history "the judge" and these people "its executioner." Mikhail Bakunin argued that an intermediate period named for these people would inevitably self-perpetuate. The *Critique of the Gotha* ("GO-tah") *Program* discusses this group's transitional "dictatorship." A variation on the name of these people, which refers to unthinking "social scum," prefaces their name with the word "lumpen." An 1848 text claims that this group has "a world to win" and "nothing to lose but its chains." For 10 points, in Marxism, what class of workers is oppressed by the bourgeoisie?

ANSWER: **proletariat** [or **proletarian**; accept **proles**; accept lumpen**proletariat**; accept "Reification and the Consciousness of the **Proletariat**"; prompt on **workers**, **laborers**, the **working** class, or the **labor** class] (The chapter in the first sentence is from Guy Debord's *The Society of the Spectacle*.)

<Philosophy>

5. This title type of event inspired the disjointed structure of a 1998 novel by Rainald Goetz. These events were promoted by Junior Tomlin's flyers. A participant in these events titles the final track on Burial's album *Untrue*. In a 2019 Brian Welsh film, two Scottish boys attend these events, defying the 1994 Criminal Justice and Public Order Act. The "culture" of these events embraces PLUR, or "peace, love, unity, respect." These events developed from precursors like Danny Rampling's "Balearic-style" Shoom during the underground "Second Summer of Love," which popularized acid house. A music video by Noisestorm depicts one of these events held by crabs. For 10 points, festivals like Electric Daisy Carnival are commercialized offshoots of what psychedelic, laser-lit parties where DJs play electronic dance music?

ANSWER: **raves** [accept "Crab **Rave**"; accept **rave** culture; accept megar**raves**; accept "**Raver**"; prompt on electronic dance **party**, circuit **parties**, **dances**, EDM **festivals**, dance **clubs**, or underground **scene**] (The 2019 film is *Beats*.)

<Pop Culture>

6. While calling for action from this institution, a politician described "isolated, majestic, imperious" facilities "brooded over by the gigantic water-tower." By metaphorically "stuff[ing] their mouths with gold," opponents of this institution were won over by the "Tito from Tonypandy." After the Alma-Ata Declaration, inequity within this institution was investigated by Douglas Black. The Tredegar Society influenced the design of this institution, whose long-term viability was probed by the Guillebaud Committee. Ironically, one of this institution's recruitment drives to employ Black Caribbean women was led by the xenophobic Enoch Powell. In 1945, Aneurin Bevan ("uh-NYE-rin BEV-in") proposed this institution to achieve the Beveridge Report's aim of providing support from the "cradle to the grave." For 10 points, name this system of free public medical care in the United Kingdom.

ANSWER: **National Health Service** [or **NHS**; prompt on British **health** care system or equivalents] (Bevan's "stuff their mouths with gold" quote referenced a concession that allowed doctors to keep seeing private patients if they saw NHS patients as well. Powell gave the "Water Tower" speech to paint a bleak picture of mental asylums in need of support from the NHS.)

<Other History>

7. The reader is told to compose a poem in this form as a “homework assignment” in Nicanor Parra’s antipoem “Something Like That.” A poem in this form addresses a person “in the moon’s airy and blue powder” before declaring “I leave singing my lovely revenge.” A collection of poems in this form is divided into morning, afternoon, evening, and night and is dedicated to Matilde Urrutia. A group of poems in this form begins “From the icy niche where men placed you / I lower your body to the sunny, poor earth” and responds to the death of the poet’s lover, Romelio Ureta. One hundred poems in this form make up a Pablo Neruda collection. Three poems in this form about death were written by Gabriela Mistral. For 10 points, what poetic form includes a type named for Petrarch?

ANSWER: **sonnets** [or **sonetos**; accept Petrarchan **sonnet** or Italian **sonnet**; accept **Sonnets of Death** or **Sonetos de la muerte**; accept *One Hundred Love **Sonnets*** or *Cien **sonetos de amor***]

<World Literature>

8. This quantity increases in discrete steps for the Kuramoto–Sivashinsky equation describing thermal instabilities as the domain length increases. As this quantity diverges, the number of points in a Poincaré section increases. The ratio of parameters for which this quantity doubles converges to the first Feigenbaum constant for systems like the logistic map, describing a “route to chaos” corresponding to bifurcations where this quantity doubles. Similarly, this quantity diverges to infinity for most trajectories in chaotic systems. The square of this quantity is proportional to the semimajor axis cubed for an orbit, according to Kepler’s third law. This quantity scales as the square root of L over g for a pendulum undergoing small oscillations. For 10 points, what quantity gives the time it takes for a system to return to its initial state?

ANSWER: **period** [or word forms like **periodic**; accept orbital **period**; accept **period** doubling route to chaos]

<Physics>

9. Fanny Cerrito (“chair-REE-toh”) and Sofia Fuoco were trained at one of these institutions by Carlo Blasis. Robert Altman’s penultimate film depicts one of these institutions co-founded by Gerald Arpino. Two rival Danish institutions of this type were founded by Pierre Laurent and Vincenzo Galeotti. “Methods” used by these institutions include “Italian” and “Russian” ones created by Enrico Cecchetti (“check-KET-tee”) and Agrippina Vaganova. They’re not theatres, but after founding one of these institutions, Louis XIV performed as Apollo, the Sun King, and commissioned the Beauchamp–Feuillet notation, which describes five “positions.” For 10 points, Robert Joffrey names an example of what institutions where students learn techniques such as *en pointe* to perform in works like *The Nutcracker*?

ANSWER: **ballet** schools [or **ballet** companies, **ballet** studios, **ballet** academies, or **ballet** troupes; accept Joffrey **Ballet** Company; accept **Académie Royale de Danse**; prompt on **schools**, **studios**, **companies**, dance **academies**, or equivalents by asking “for what art form?”; prompt on **dance** or **danse**] (Altman’s film *The Company* is about the Joffrey Ballet.)

<Other Fine Arts>

10. The eighth iteration of a model of these substances includes a CDS term describing effects such as cavitation and dispersion. Y represents the ionizing power of these substances in the Grunwald–Winstein equation. The LCPO method solves a linearized two-body problem to determine the accessible surface area that these substances interact with in implicit models, which treat them as continuous dielectrics. These substances affect the favored mechanism in nucleophilic substitution reactions because they stabilize the nucleophile when they are polar. Protic examples of these substances often contain hydroxyl groups and can participate in hydrogen bonding. For 10 points, water is often described as the “universal” type of what substances that dissolve solutes?

ANSWER: **solvents** [accept polar protic **solvents** or polar aprotic **solvents**; accept **solvent**-accessible surface area; accept **solvent** coefficients] (The first line refers to the SM8 model.)

<Chemistry>

11. Postcolonial analyses of this character often discuss his whist games with Sir Francis Cromarty. This character fires James Forster for making his shaving water two degrees too cold, and is compared to a Madame Tussaud's waxwork by Forster's replacement. This character is wrongly arrested for a bank robbery committed by James Strand. While traveling to Allahabad by elephant, this character criticizes the "barbarous customs" of India before he prevents Aouda from performing sati. This character wins a 20,000-pound bet at the Reform Club by unknowingly passing the International Date Line, a fact realized just in time by the valet Passepartout ("pass-par-TOO"). For 10 points, name this English gentleman, the protagonist of Jules Verne's *Around the World in Eighty Days*.

ANSWER: Phileas **Fogg** [or **Phileas** Fogg]

<European Literature>

12. A deaf artist trained by Pieter Isaacs sold lively paintings depicting this time period under the moniker "the mute of Kampen." The right side of a landscape titled for this time period allegorically shows birds flocking around a trap. Many of Hendrick Avercamp's Dutch Golden Age landscapes highlight this time period's leisure activities. A 1565 landscape set amidst this time period features in the films *Melancholia* and *Solaris*. The merchant Nicolaes Jonghelinck ("YONG-uh-link") commissioned that painting of this time period along with *Haymaking*, *The Harvesters*, and other peasant scenes for the cycle *Series of the Months*. In that painting of this period, downtrodden men and dogs trudge back to a valley dotted with skaters. For 10 points, Pieter Bruegel's landscape *Hunters in the Snow* depicts what season?

ANSWER: **winter** [accept *Winter Landscape with Skaters and Birds Trap* or *Winterlandschap met schaatsers en vogelknip*; reject "Little Ice Age"]

<Painting/Sculpture>

13. The death of this ruler caused a power struggle that ended with a siege of Jean IV de Rieux's ("zhawn the fourth duh ree-UH's") forces at Saint-Aubin-du-Cormier ("san-toh-BAN-du-corm-YAY"). This ruler's use of Swiss mercenaries instead of native troops is criticized in *The Prince*. An alliance formed against this ruler sought to retake the "Somme towns." This ruler invited writer Philippe de Commines ("kuh-MEEN") away from his rival's court. This ruler and Jacques Cœur ("kurr") were rumored to have poisoned the first official royal mistress, Agnès Sorel ("ahn-YESS so-REL"). While he was the dauphin, this ruler joined the "Praguerie" against his father. This ruler's brother, Charles, Duke of Berry, was the figurehead of the League of the Public Weal. This ruler used the Treaty of Picquigny ("pee-keen-YEE") to sideline Charles the Bold of Burgundy. For 10 points, name this French king nicknamed for his arachnid-like schemings.

ANSWER: **Louis XI** [or **Louis** the **Prudent** or **Louis** le **Prudent**; accept **Louis** the **Spider** King or **Louis** the Universal **Spider** or **Louis** l'universelle **araignée**; prompt on **Louis**; prompt on the Universal **Spider** or l'universelle **araignée**]

<European History>

14. The difference between the static and total values of this quantity is used to calculate the ram rise. The potential value of this quantity is proportional to P-naught over P to the two-sevenths power, accounting for how this quantity would change when a parcel of air is adiabatically brought to standard pressure. The negative derivative of this quantity with respect to altitude determines the lapse rate, which is negative for an inversion layer. This quantity is directly measured by a sling psychrometer ("sigh-CROM-uh-ter"), part of which is covered in damp cloth to give the wet-bulb form of this quantity, taking into account relative humidity. Parcels with a higher value for this quantity rise, because higher values of this quantity correspond to a lower air density. For 10 points, name this atmospheric quantity measured in degrees Celsius.

ANSWER: atmospheric **temperature** [accept wet-bulb **temperature**, dry-bulb **temperature**, static **temperature**, total **temperature**, potential **temperature**, or virtual **temperature**; prompt on **T**]

<Other Science>

15. Deirdre McCloskey has decried explanations for the “Great Enrichment” relying on these entities as lacking “oomph” compared to her ideas-based view. A medieval coalition of Maghribi traders was analyzed as one of these entities that solved overseas commitment problems by Avner Greif (“ahv-nair GRYFE”). European settler mortality rates are an instrument for the quality of these entities in a paper by Acemoğlu (“ah-jay-MOH-loo”), Johnson, and Robinson, two of whom contrasted “inclusive” and “extractive” types of them in *Why Nations Fail*. Douglass North described how these “humanly-devised constraints” are in their namesake “new” school of economics. Gallup polls show that trust in examples of these entities like the media has declined. For 10 points, what concept from the social sciences groups formal laws and organizations?

ANSWER: **institution** [accept new **institutional** economics; accept extractive **institutions** or inclusive **institutions**; reject “institutes”]

<Social Science>

16. Uncle Root praises this author in a novel that cuts between a Georgia plantation owned by the abusive Samuel Pinchard and Ailey Pearl Garfield’s present-day research on her ancestors. Manuel Mansart builds Atlanta University in the second book of this author’s *Black Flame* trilogy. This author wrote about Jim and Julia, the only two people to survive a comet that strikes New York City, in a proto-Afrofuturist story collected in the book *Darkwater*. The lives of a Black and white man are profiled in “Of the Coming of John,” a story from a book by this author that excerpts scores of “sorrow songs” and describes a “Veil” stemming from the “problem of the color line.” For 10 points, name this author who discussed the idea of “double consciousness” in *The Souls of Black Folk*.

ANSWER: W. E. B. **Du Bois** [or William Edward Burghardt **Du Bois**; accept *The Love Songs of W. E. B. Du Bois*] (Honorée Fanonne Jeffers wrote *The Love Songs of W. E. B. Du Bois*.)

<American Literature>

17. The final movement of an orchestral suite by this composer is pervaded by the three-note horn ostinato “G-sharp, E, F-sharp,” which mimics a carillon. This composer’s best-known piano music is a set of four-hands miniatures with titles like “Soap Bubbles” and “The Spinning Top.” A youthful symphony by this composer opens with the tutti melody “C, down to ascending [emphasize italic notes] G-G-C, [pause] C-C-E, [pause] E-E-G” and was first performed 60 years after his death. This composer quoted the Epiphany hymn “March of the Kings” throughout his two *L’Arlésienne* suites. An opera by this composer set in Sri Lanka features the friends Nadir and Zurga singing the duet *Au fond du temple saint*. For 10 points, name this French composer of *The Pearl Fishers*, who included a habanera and “Toreador Song” in his opera *Carmen*.

ANSWER: Georges **Bizet** [or Alexandre César Léopold **Bizet**]

<Classical Music>

18. During one of these events, Gall goes to the “Glen of the Lunatics” near Ventry. A man nicknamed for these events, who named a northerly “half” contrasted with Leath Moga (“leh-uh MOH-guh”), is the first to be acclaimed by the Stone of Destiny. The *Book of the Dun Cow* describes one of these events at Cnucha (“KNOOK-uh”), after which Fionn’s mother seeks a king nicknamed for “one hundred” of them named Conn. The Mythological Cycle narrates two of these events at Magh Tuireadh (“mai TOO-ruh”). These events, which paradigmatically trigger a demigod’s “warp spasm” or ríastrad (“REE-strud”), are influenced by a tripartite goddess’s Badb (“baiv”) aspect in the form of a crow. The *Annals of Ulster* mythologize Brian Boru for one of these events at Clontarf. These events are incited by the Morrígan. For 10 points, Cú Chulainn ties himself to a stone during what type of event so he can die standing?

ANSWER: **battles** [or **combat**; or **cathanna**; accept **war**s or **conflicts** or equivalents; or **cogadh** or **cogaí**; accept **Cath** Chluain Tarbh, **Battle** of Clontarf, Conn of the Hundred **Battles**, Con Cét**chathach**, *The Cause of the **Battle** of Cnucha*, *Fotha **Catha** Chnucha*, **Cath** Maige Tuired, **Battle** of Moytura, **Battle** of Ventry, or **Cath** Finntrágh; prompt on raids or campaigns or invasions; prompt on death or killing or slaughter or similar; reject “cattle raids”] (Leath Cuinn is “Conn’s half.”)

<Mythology>

19. As a lawyer, this man used a then-pioneering insanity defense in a failed attempt to save William Freeman from the death penalty. This man controversially adopted Olive Risley despite their 40-year age gap. This man signed an anti-slave-trade treaty with Richard Lyons after an incident started by *USS Jacinto* captain Charles Wilkes. Along with Anson Burlingame, this man amended the Treaty of Tiānjīn (“t’yen-JIN”) by granting China “most favored nation” status. This longtime ally of Thurlow Weed argued for a “higher law than the Constitution” during a Senate speech opposing the Compromise of 1850. This man and Eduard de Stoeckl (“sh’TECK-ull”) negotiated the 7.2-million-dollar purchase of a territory that some critics labeled his “icebox.” For 10 points, name this Secretary of State under Presidents Andrew Johnson and Abraham Lincoln, whose “folly” was the purchase of Alaska.

ANSWER: William Henry **Seward** [accept **Seward**’s folly; accept **Seward**’s icebox; accept Burlingame–**Seward** Treaty; accept Lyons–**Seward** Treaty] (The incident in the third line was the *Trent* Affair.)

<American History>

20. *Word forms acceptable.* A prefix derived from this word names “trophic factors” that signal through Trk tyrosine kinases, discovered by Rita Levi-Montalcini. *Drosophila* express *deadpan* throughout tissue named for this adjective, in which netrins guide commissural cells that bypass Slit-mediated repulsion from the midline by downregulating Robo in their growth cones. This adjective names a group of migratory ectodermal cells whose cardiac domain forms melanocytes after they arise from a transitory developmental “crest.” The notochord induces the formation of a “plate” named for this adjective that folds to form a “tube” whose birth defects are prevented by folate. This type of stem cell generates radial glial cells like astrocytes and oligodendrocytes. For 10 points, what adjective names tissue that develops into central and peripheral systems?

ANSWER: **neural** [or word forms such as **neuronal**, **nervous**, **neuro-**, **nerves**, or **neurons**; accept central **nervous** system or peripheral **nervous** system; accept **neural** tube defects, **neural** plate, **neural** folds, **neural** stem cells, or **neural** crest cells; accept **neurulation** or **neuro**development or **neural** development; accept **neuro**epithelium or **neuro**ectodermal cells; accept **neuro**trophic factors or **neuro**trophins]

<Biology>

21. A short story by this author depicts Dasa, who kills his half-brother Nala. In another story by this author, Ada is the daughter of Master Turu, who teaches his apprentice “thousands of years ago, when women ruled.” This author included “The Indian Life” and “The Rainmaker” in the “posthumous writings” of a protagonist who dies while following his pupil on a swim in a mountain lake. A character created by this author learns from a treatise that he is a “suicide” who may become an “immortal.” This author created a protagonist who debates with Plinio Designori and gains a title previously held by Thomas van der Trave. In a novel by this author, the Waldzell School teaches Joseph Knecht the title esoteric activity. For 10 points, name this Swiss-German author of *The Glass Bead Game* and *Steppenwolf*.

ANSWER: Hermann **Hesse** [or Hermann Karl **Hesse**; prompt on Joseph Knecht or Joseph Knecht by asking “he was created by what real-life author?”]

<European Literature>

Bonuses

1. Many songs in this genre were sung to tunes written by French trouvères (“troo-VEHR”) in the practice of contrafactum. For 10 points each:

[10h] Name this genre of medieval German songs performed by poets like Walther von der Vogelweide (“FOH-gull-vye-duh”), whose pro-Crusade “Palestine Song” is among the few whose melody survives today.

ANSWER: **Minnelieder** [accept **Minnesang** or **Minnesänger**; prompt on **Lieder**]

[10m] This composer wrote out the first lines of a Minnelied about a “blue, blue flower” under the opening bars of the slow movement of his first piano sonata in C major. This composer’s own vocal works include his *Four Serious Songs* and *Schicksalslied* (“SHICK-sals-leet”).

ANSWER: Johannes **Brahms**

[10e] The Minnesang tradition gradually evolved into one dominated by guilds of Meistersingers, whose strict melodic rules form part of the plot of a Richard Wagner comedy set in this German city.

ANSWER: **Nuremberg** [or **Nürnberg**; accept *Die Meistersinger von Nürnberg* or *The Master-Singers of Nuremberg*]

<Classical Music>

2. Polybius speculated, and Strabo confirmed, that this island may have been the home of the legendary “lotus-eaters.” For 10 points each:

[10h] Name this Tunisian island sometimes known as the “Island of the Kohanim” (“ko-hah-NEEM”) due to its people’s mythical descent from Jewish priests. A synagogue located on this island has been in continued use since 586 BCE.

ANSWER: **Djerba** [or **Dzerbah**; accept **Meninx** or **Meninge**] (The synagogue is the El Ghriba Synagogue.)

[10e] Some of Djerba’s Jewish settlers legendarily helped the Phoenicians found this city that the Romans destroyed after the Third Punic War.

ANSWER: **Carthage** [or **Carthāgō** or **Qārt-ḥadāšt**]

[10m] This historian recorded the existence of half a million Jews living in Cyrenaica in the first century CE. This author of *Antiquities of the Jews* claimed that the Roman destruction of the Second Temple was necessary in *The Jewish War*.

ANSWER: **Josephus** [or Titus Flavius **Josephus**; or **Iósēpos**]

<Other History>

3. An etching on a gourd may suggest that Caral’s Norte Chico civilization first venerated a god with these features, who is depicted on Chavín de Huántar’s (“chah-VEEN day WAHN-tar’s”) Raimondi Stele. For 10 points each:

[10h] Four of what features distinguish the Moche god Ai Apaec (“eye ah-peck”) on funerary masks? An adobe sculpture from Huaca de los Reyes has a large nose and these features, which are exaggerated on the Staff God of Wari and Tiwanaku.

ANSWER: **fangs** [or pointed **teeth**; accept **fanged** god; prompt on large **mouth** or **maw** or **jaw** or equivalents]

[10e] This empire’s goddess Mama Huaco bares her teeth and carries a golden staff. The chakana cross symbolized this empire, whose semi-legendary founder Manco Cápac planted his staff in Cusco.

ANSWER: **Inca** Empire [or the **Incas**; or **Tawantinsuyu**; accept Sapa **Inca**; accept **Inca** cross; prompt on “Realm of the **Four Parts**” or “**Four Parts** Together” or “Land of **Four Corners**”]

[10m] The Inca spread Pachamama’s worship to people of this ethnicity, who place cigarettes between skulls’ teeth for Ñatitas (“nyah-TEE-tahss”) in Bolivia. This ethnic group, which practices tinku combat, is symbolized by the rainbow wiphala (“wee-PAH-lah”).

ANSWER: **Aymara** people [or **Aimara**] (Ñatitas is the Festival of the Skulls.)

<Mythology>

4. Walter Reed offers a course in the branch of medicine named for this adjective, which developed at colonial institutions like the Prince Leopold Institute. For 10 points each:

[10m] Identify this adjective that partly names the London School of Hygiene founded by the parasitologist Patrick Manson. This adjective names “neglected diseases” like lymphatic filariasis and ascariasis.

ANSWER: **tropical** [accept neglected **tropical** diseases; accept **tropical** medicine or London School of Hygiene and **Tropical** Medicine]

[10h] This neglected tropical disease caused by the nematode *O. volvulus* is transmitted by blackflies throughout equatorial Africa. This disease damages a structure that is also infected by *Loa loa*.

ANSWER: **river blindness** [or **onchocerciasis**; or **Robles** disease; prompt on **blindness**] (*Loa loa* is the “African eye worm.”)

[10e] The WHO classifies this anthelmintic drug as an essential medicine for river blindness. Ōmura and Campbell won the 2015 Nobel Prize for this deworming drug, which was touted as a COVID-19 treatment.

ANSWER: **ivermectin** [prompt on **Stromectol**, **Heartgard**, **Sklice**, **Ivomec**, **Iverhart Plus**, **Mectizan**, or **Ivexterm** by asking “what is the generic name?”]

<Biology>

5. Correlation length diverges where these events happen in spin models like the Ising model. For 10 points each:

[10e] Name these abrupt changes in the physical properties of a system. These changes are sometimes accompanied by release of latent heat.

ANSWER: **phase transitions** [or **phase changes**]

[10m] Phase transitions are characterized by one of these quantities that go from zero to a finite value across the transition. Magnetization plays the role of this quantity for the paramagnetic–ferromagnetic phase transition in the Ising model.

ANSWER: **order parameter**

[10h] The order parameter for phase transition in this type of system is the second Legendre polynomial of the cosine of the molecular axis angle. Lars Onsager, who analytically modeled the Ising model phase transition in 2D, developed a hard rod model of these systems.

ANSWER: **liquid crystals** [or **LCs**; accept nematic **liquid crystals** or uniaxial nematic **liquid crystals**; reject “liquids” or “crystals”]

<Physics>

6. A poem by Dionysios Solomos recounts Alexandros Mavrokordatos’s heroic defense of this city, where “Lord Byron lies dead” as “the woodlands weep, the castle groans” according to a later ballad. For 10 points each:

[10m] Name this city that fell to Ibrahim Pasha in 1826 after a bloody third siege. That same year, Eugène Delacroix painted a scene that depicts a woman with outstretched arms kneeling in this city.

ANSWER: **Missolonghi** [or **Messolonghi**; accept Third Siege of **Missolonghi**]

[10e] This country’s national anthem adapts Solomos’s “Hymn to Liberty,” which references Missolonghi. A folk ballad dedicated to Mount Kisavos was written during this country’s 1820s war of independence against the Ottomans.

ANSWER: **Greece** [or **Hellenic** Republic or **Hellas**; or **Elláda** or **Ellinikí** Demokratía]

[10h] That folk ballad belongs to a genre of music named after these Greek bandits. Like the *armatoloi*, many of these mountain-dwelling outlaws secretly negotiated with the Ottomans.

ANSWER: **klephts** [or **klefts** or **klefteins**; accept **klephtic** songs]

<European History>

7. A book on the “Experimental Life” by Steven Shapin and Simon Schaffer examines this philosopher’s skepticism about the scientific experiments of Robert Boyle. For 10 points each:

[10m] Name this philosopher whom John Wallis attacked for the shoddy geometry in his treatise *De Corpore*, such as a “proof” of squaring the circle. This author listed 19 laws of nature in a book similar to his earlier *De Cive* (“day CHEE-vay”).

ANSWER: Thomas **Hobbes**

[10e] The title of Shapin and Schaffer’s book pairs Boyle’s “Air-Pump” with this book by Hobbes, which supports an absolute sovereign to overcome the “war of all against all.”

ANSWER: **Leviathan** [or **Leviathan: Or the Matter, Forme and Power of a Commonwealth Ecclesiasticall and Civil**; accept **Leviathan and the Air-Pump**]

[10h] Shapin and Schaffer trace Hobbes’s natural philosophy in part to his time among French intellectuals while patronized by a member of this family. A member of this family included *Observations upon Experimental Philosophy* as a companion to a 1666 novel.

ANSWER: **Cavendish** [accept Margaret **Cavendish**; accept William **Cavendish**, 1st Duke of Newcastle upon Tyne; prompt on Duke of **Newcastle** upon Tyne; prompt on Margaret **Lucas** by asking “what was her married surname?”] (The novel is *The Blazing World*.)

<Philosophy>

8. Pixels in these devices correspond to p-doped MOS (“moss”) capacitors. For 10 points each:

[10m] Name these image sensor devices in which incoming photons produce an eponymous quantity. These devices have only one output node, allowing for more light-capture area than comparable technologies.

ANSWER: **charge-coupled devices** [or **CCDs**]

[10e] To read out the image from a CCD, the captured charge is converted to this quantity and amplified.

Capacitance is the ratio of the charge difference to this quantity across the capacitor.

ANSWER: **voltage** [or **electric potential**; accept **potential difference**; prompt on *V* or **potential**]

[10h] The readout stage of CCD operation uses these circuits to transfer charge between capacitors until they reach the readout electronics. More generally, these circuits consist of a cascade of flip-flops sharing a common clock signal.

ANSWER: **shift registers** [accept output **shift registers**; prompt on **registers**; prompt on **analog-to-digital converter** or **ADC**]

<Other Science>

9. The first chapter of John Betjeman’s blank verse memoir *Summoned by Bells*, which explores his “memories of the nursery,” is titled for being “Before” this time period. For 10 points each:

[10h] Give this title time period of a poem whose speaker sees a photograph of “archaic faces grinning as if it were all an August Bank Holiday” before reflecting that there has been “never such innocence, never before or since.”

ANSWER: **1914** [or **MCMXIV**; accept “Before **MCMXIV**”]

[10e] Betjeman was close friends with this author of “MCMXIV” and helped popularize his collection *The Whitsun Weddings*. This poet wrote that “they fuck you up, your mum and dad” in “This Be the Verse.”

ANSWER: Philip **Larkin** [or Philip Arthur **Larkin**]

[10m] In a BBC show, Betjeman reads Larkin’s poem about one of these places “not worth stopping for” as Larkin acts it out. Betjeman wrote a documentary about his “Passion for” these places, which Larkin discussed in a poem titled for “Going” to one.

ANSWER: **churches** [accept “**Church** Going”; accept *A Passion for Churches*; reject other types of church building such as “basilicas” or “cathedrals”]

<British Literature>

10. These things are the focus of the first of three Dievturība life-cycle celebrations in Latvia, where godparents witness their conferral after a feast of milk, honey, bread, and cheese. For 10 points each:

[10m] Identify these things that were traditionally awarded by Christians during confirmation ceremonies. In countries like Greece, Cyprus, and Russia, these things are the focus of individualized holidays.

ANSWER: **names** [or personal **name** or first **names**; accept **name** days; accept **namesakes**; accept Christian **names** or baptismal **names** or confirmation **names**; accept **christening** or **krustabas**; prompt on patron **saints** by asking “what connection with the saint is the impetus for the holidays?”; reject “surnames” or “last names”]

[10e] Charles Bardsley used this virtue, which is itself a popular Christian name for girls, to describe Puritan names like “Faith” and “Obedience.” This virtue is called “amazing” in a hymn written by John Newton.

ANSWER: **grace** [or divine **grace**; or **gratia**; accept “Amazing **Grace**”; accept **grace** names]

[10h] In John Wesley’s adaptation of the Arminian articles of Remonstrance, this adjective describes grace bestowed by Christ’s death, which exists before a sinful person chooses to embrace or resist it.

ANSWER: **prevenient** [or word forms like **prevenience**; accept **prevenient** grace]

<Religion>

11. An activist from this state coined a euphemism about its “appendectomy” after her white doctors removed her uterus without her consent during cancer surgery. For 10 points each:

[10m] Name this state where the activists James Chaney, Andrew Goodman, and Michael Schwerner were murdered by the KKK. COFO organized the Freedom Summer Project in this state to promote Black voter registration.

ANSWER: **Mississippi** [or **MS**; accept “**Mississippi** appendectomy”]

[10h] This founder of the Mississippi Freedom Democratic Party helped organize the Freedom Summer with SNCC (“snick”). This woman gave the speech “I am sick and tired of being sick and tired” at a Harlem rally with Malcolm X.

ANSWER: Fannie Lou **Hamer** [or Fannie Lou **Townsend**]

[10e] This president unsuccessfully tried to ban Hamer from speaking at the 1964 DNC because she was illiterate. Nicholas Katzenbach drafted the Voting Rights Act that this president signed into law a year later.

ANSWER: **Lyndon B. Johnson** [or **Lyndon Baines Johnson** or **LBJ**; prompt on **Johnson**]

<American History>

12. Dambudzo Marechera, an author from this country, depicted his mistreatment and marginality both in Oxford and in this country in *The House of Hunger*. For 10 points each:

[10m] Name this home country of Tsitsi Dangarembga, who set her novels *This Mournable Body* and *Nervous Conditions* here.

ANSWER: **Zimbabwe** [or Republic of **Zimbabwe** or Nyika ye**Zimbabwe** or Ilizwe le**Zimbabwe**; accept **Rhodesia**, Southern **Rhodesia**, Republic of **Rhodesia**, or **Rodizha**; reject “Northern Rhodesia”]

[10e] This author described reading *The House of Hunger* as “like overhearing a scream.” This British-Zimbabwean author wrote the *Children of Violence* novel sequence and *The Golden Notebook*.

ANSWER: Doris **Lessing** [or Doris May **Lessing**; or Doris May **Taylor**]

[10h] This author depicted Darling’s childhood in Zimbabwe in her debut novel, whose first chapter started as the short story “Hitting Budapest.” This author’s second novel, *Glory*, was inspired by George Orwell’s *Animal Farm*.

ANSWER: NoViolet **Bulawayo** [or Elizabeth Zandile **Tshele**] (The debut novel is *We Need New Names*.)

<World Literature>

13. A series of paintings depicting the “Adoration” and “Naked Soul” of a “Captain” of this material features backdrops of black stars with eyes cut from magazines. For 10 points each:

[10m] Identify this material that Chris Ofili also used to represent an exposed breast in his painting *The Holy Virgin Mary*.

ANSWER: elephant **dung** [or equivalents such as **poop** or **feces** or **shit**; accept Captain **Shit**]

[10e] Elephant dung also features in Ofili’s *No Woman No Cry*, a “modern” rendition of this religious scene. Angus Fairhurst photographed himself in the arms of a gorilla suit to imitate this scene of Mary cradling Jesus’s dead body.

ANSWER: **Pietà**

[10h] This series by Ofili represents Jesus and his disciples with its 13 entries, each of which shows a rhesus macaque with a painted ball of dung. It was displayed in a walnut-paneled space designed by David Adjaye (“AD-jay”).

ANSWER: *The **Upper Room***

<Painting/Sculpture>

14. The ninth section of this text unusually includes a quotation from Genesis among several passages from Homeric epic. For 10 points each:

[10h] Name this treatise that describes its title concept as “loftiness and excellence of language.” This treatise on literary theory is conventionally attributed to Longinus.

ANSWER: ***On the Sublime*** [or ***De Sublimitate*** or ***Peri Hypsous***]

[10m] *On the Sublime* praises the way this poet “freezes, burns, raves, reasons, and all at the same instant” after quoting this author’s fragmentary poem 31. This author’s first poem addresses a “deathless” goddess “of the spangled mind.”

ANSWER: **Sappho** [or **Psápphō** or **Sappho** of Lesbos] (The second poem is the “Ode to Aphrodite.”)

[10e] Longinus also analyzes the imagery in the “battle of the gods” in this poem’s twenty-first book. This Homeric epic poem depicts Achilles’s fury in the Trojan War.

ANSWER: ***Iliad***

<European Literature>

15. Answer the following about islands whose populations have a disproportionate incidence of unusual traits, for 10 points each.

[10e] A unique sign language arose on this island thanks to a 19th-century rate of deafness 37 times the US average. The Chappaquiddick incident occurred on a bridge to this Massachusetts island’s city of Edgartown.

ANSWER: Martha’s **Vineyard** [or the **Vineyard**]

[10m] The clustering of people with this trait on Lake Victoria’s Ukerewe Island stems in part from their fear of persecution. “Witch doctors” have murdered people with this trait in mainland Tanzania, Malawi, and Zambia.

ANSWER: **albinism** [or **albino** people; accept oculocutaneous **albinism** or **OCA**; prompt on **hypopigmentation** or **dermatological disorders**]

[10h] This island’s original settlers included at least two asthmatics; the modern incidence is over 40 percent due to the founder effect. The name of this island’s only settlement references the dukedom of Queen Victoria’s son Prince Alfred.

ANSWER: **Tristan da Cunha** (The settlement is Edinburgh of the Seven Seas.)

<Geography>

16. Olaf Nelson took over this people's independence movement after its previous leader, Lealofi III of the Tupua Tamasese, was shot and killed by colonial police on Black Saturday, 1929. For 10 points each:

[10m] Name this ethnic group whose rival matai chiefs sought backing from the US, UK, and Germany during their 1887 to 1889 "crisis." New Zealand apologized for its role in spreading the 1918 flu pandemic among this people.

ANSWER: **Sāmoans** [or tagata **Sāmoa**; accept Western **Sāmoans**; accept American **Sāmoans**; prompt on **Polynesians**]

[10h] The Sāmoan independence movement was named after this native word, roughly translated as "resolute testimony." An earlier movement named after this word was led by the Pule ("poo-LAY") chief Lauaki Mamoe ("lao-AH-kee muh-MOH-ee").

ANSWER: **Mau** [accept **Mau** Movement; accept **Mau** a Pule; accept O le **Mau**; reject "Mau Mau"]

[10e] As a sign of defiance against colonial authorities, Mau members refused mandated searches for rhinoceros beetles that devastated harvests of this fruit, whose flesh can be dried into copra, pressed for its oil, and extracted for its milk.

ANSWER: **coconuts** [or *Cocos nucifera*; accept **coconut** palms; accept **coconut** oil; prompt on **palm** trees]
<World History>

17. These reconstructed phonemes are usually represented as H1, H2, and H3, with H2 and H3 believed to have a "coloring" effect on nearby vowels. For 10 points each:

[10h] Give the collective name for these phonemes, which Ferdinand de Saussure ("so-SYOOR") proposed in their namesake theory. The Hittite language provides direct evidence for some of these hypothetical phonemes.

ANSWER: **laryngeals** [or **laryngeal** consonants; accept **laryngeal** theory; accept **sonant coefficients** or **coefficients sonantiques**; reject "sonants," "glottals," or "glottalic theory"]

[10e] Laryngeal theory helps to explain the strange distribution of A-vowels in this language. This reconstructed proto-language is the ancestor of languages such as French, Greek, and Hindi.

ANSWER: **Proto-Indo-European** [or **PIE**; reject "Indo-European"]

[10m] Some scholars argue for a fourth laryngeal based on some instances of word-initial h in this Indo-European language, the only extant one in its branch. The Shkumbin River divides this language's Gheg and Tosk dialects.

ANSWER: **Albanian** [or **shqipja** or gjuha **shqipe**]

<Social Science>

18. 2022 Nobel laureate Barry Sharpless called one of these reactions between an azide and an alkyne "the cream of the crop" of click chemistry. For 10 points each:

[10m] Name these reactions that are notated with square brackets that contain the number of participating electrons from each reactant, such as [4+2] ("four plus two").

ANSWER: **cycloaddition** reactions [prompt on **pericyclic** reactions]

[10e] The azide-alkyne Huisgen cycloaddition produces a triazole, which is a five-membered ring containing three atoms of this element. Azides are polyatomic anions consisting of three atoms of this element.

ANSWER: **nitrogen** [or **N**]

[10h] Morton Meldal, another co-winner of the 2022 Chemistry Nobel, developed a version of the azide-alkyne cycloaddition catalyzed by this transition metal, which forms a pi complex with the triple bond of the alkyne. TBTA can prevent the aerobic disproportionation of this metal in its plus-one oxidation state.

ANSWER: **copper** [or **Cu**]

<Chemistry>

19. Despite its commercial success, critic Russell Blaine Nye lambasted this poem as “one of the most complete failures in American poetic history.” For 10 points each:

[10h] Name this 1807 poem intended as a national epic of the US. This poem rejects the muses in favor of invoking “Almighty Freedom” and celebrates “the Mariner who first unfurl’d / An eastern banner o’er the western world.”

ANSWER: *The **Columbiad*** (by Joel Barlow)

[10m] Columbus draws up maps at the opening of this poet’s cycle *Pictures of Columbus*. This poet remarked “Reason’s self shall bow the knee / To shadows and delusions here” in a poem set at a Native American graveyard.

ANSWER: Philip **Freneau** [or Philip Morin **Freneau**] (The poem is “The Indian Burying Ground.”)

[10e] This poet, who translated a paean to Columbus by Schiller, praised the exploration of a mountain-climbing youth in his poem “Excelsior.” He also wrote “Paul Revere’s Ride.”

ANSWER: Henry Wadsworth **Longfellow**

<American Literature>

20. *Two answers required.* One of these two men premiered the roles of Robert Devereux in *Gloriana* and King Nebuchadnezzar in *The Burning Fiery Furnace*, two operas written by the other. For 10 points each:

[10h] Name these two men who co-founded a festival that takes place in the Snape Maltings Concert Hall. One of them premiered many tenor roles in operas composed by the other, often with the soprano Joan Cross.

ANSWER: Benjamin **Britten** AND Peter **Pears** [accept in either order; accept Edward Benjamin **Britten** in place of “Benjamin Britten”; accept Peter Neville Luard **Pears** in place of “Peter Pears”] (They co-founded the Aldeburgh Festival.)

[10e] Pears premiered the role of the title fisherman in this Britten opera, which is named after a section of George Crabbe’s poem *The Borough*. *Four Sea Interludes* is a suite of orchestral excerpts from this opera.

ANSWER: **Peter Grimes**

[10m] Pears performed with Dietrich Fischer-Dieskau (“fisher-DEE-scow”) in the premiere of this Britten vocal work based on a C–F-sharp tritone. Ten days before this work’s 1962 premiere, Heather Harper replaced Galina Vishnevskaya as the solo soprano.

ANSWER: **War Requiem**

<Other Fine Arts>

21. A book by Mark Adams titled “Meet Me in” this location asks why amateur explorers are obsessed with finding it, despite it being a clear invention of Plato’s. For 10 points each:

[10e] Name this mythical island that is said to sink into the sea after the fall of its empire in the *Critias* and *Timaeus*.

ANSWER: **Atlantis** [or **Atlantis** nêsos; accept **Atlantean** Empire or the **Atlanteans**; accept *Meet Me in Atlantis*]

[10m] In the *Timaeus*, priests in Sais relate the story of Atlantis to this man, whose abortive passion project was an epic about Atlantis, according to Plutarch. The Seven Sages included this Athenian, who legendarily traveled to Lydia.

ANSWER: **Solon**

[10h] The *Critias* attributes a description of Atlantis mining this red-flashing material to Solon. A real version of this brass alloy was possibly used in the grip of the scepter of Maxentius and Cypriot ingots wrecked near Gela, Sicily.

ANSWER: **orichalcum** [or **aurichalcum**; or **oreichalkos**; prompt on **chalkos** or **mountain copper** or **golden copper**]

<Mythology>