2022 ACF Winter

Packet 8 by Bristol A, Warwick A, Warwick B, Minnesota C

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Tossups

1. On a picnic in this country, two characters joke that they are “utilizing” wine and chicken. A waiter in this country asks “what do you think of that?” after cynically noting that an activity is “all for fun.” While visiting this country, the narrator of a novel is punched and called a “damned pimp” for setting a woman up with a man who gives her a severed ear. In that novel, two men meet the Englishman Harris on a fishing trip in this country before going to see an event that was profiled in the book *Death in the Afternoon*. While riding through this country’s capital in a taxi, Lady Brett Ashley is asked “isn’t it pretty to think so?” by the impotent journalist Jake Barnes. For 10 points, the characters in Ernest Hemingway’s novel *The Sun Also Rises* travel to what European country to watch bullfighting?

ANSWER: **Spain** [or **España**; or Kingdom of **Spain** or Reino de **España**]

<American Literature>

2. A book on this city’s women by Sarah Pomeroy reports their consent for extramarital paternity and profiles a queen who supposedly told her father to throw out a corrupting stranger’s bribe and decoded a message by scraping wax off a tablet. Unmarried women in this city sang Alcman’s partheneia and mothered the men who founded Taras, its only colony in Magna Graecia (“MAHNG-nah GRAI-kee-ah”). Plutarch’s *Moralia* features the “sayings” of this city’s women, which included the injunction to come back either “with” a shield or “on it” with characteristic terse wit. Women in this city may have exercised nude in the Gymnopaedia. This city’s queen Gorgo was the daughter of the Agiad (“AG-ee-ad”) king Cleomenes I (“clee-AH-min-eez the first”). For 10 points, women could inherit land under the Lycurgan laws of what Peloponnesian (“pell-uh-puh-NEEZH-un”) polis led by Leonidas at the Battle of Thermopylae?

ANSWER: **Sparta** [or **Spártē**; or **Lacedaemon** or **Lakedaímōn**; accept ***Spartan*** *Constitution* or *Constitution of the* ***Lacedaemonian****s* or ***Lacedaemonion*** *Politeia* or *Republic of the* ***Lacedaemonian****s*; accept *Sayings of* ***Spartan*** *Women* or ***Lacaenarum*** *Apophthegmata*] (The corrupting stranger was Aristagoras of Miletus. Taras is the modern city of Taranto.)

<Other History>

3. A composer from this country, whose piece partly titled for *Ethiopia’s Shadow* was one of many rediscovered in an abandoned house in 2009, gained prominence for her Symphony in E Minor. An epic poem from this country inspired a trilogy of cantatas by British composer Samuel Coleridge-Taylor. The protagonist of a ballet from this country goes on the run after stabbing a man who shot his mother. In a piece from this country, trumpets play [read slowly] rising F, B flat, F to evoke a political speech. A leader of this country provides the quote “we cannot escape history” in a musical “Portrait.”. Composers from this country created *Fanfare for the Common Man* and a ballet that uses the hymn *Simple Gifts* and was choreographed by Martha Graham. For 10 points, name this home country of Florence Price and Aaron Copland.

ANSWER: **United States** of America [or **America**; or **US**A; accept *Ethiopia’s Shadow in* ***America***] (The first line is about Florence Price. The epic poem was *The Song of Hiawatha*. The third line refers to Copland’s *Billy the Kid*. The other ballet is *Appalachian Spring*.)

<Classical Music>

4. Matthew Gavin Frank reported on carrier pigeons smuggling this resource from coastal towns like Alexander Bay. The “Sperrgebiet” (“SHPAIR-guh-beet”) prohibited entry into this resource’s boomtowns of Kolmanskop (“KOLE-monz-kope”) and Lüderitz (“LOO-durr-itz”). Labor migrants from Sekhukhune’s (“say-koo-KOO-nay’s”) Pedi (“PED-ee”) Kingdom bought guns with profits from this resource in the 1860s after a Griqua (“GREEK-wuh”) shepherd started its “new rush,” which brought electric lights to the future site of Sol Plaatje (“soal PLAH-kee”) University. The Marange (“mah-RON-gay”) and Orapa (“oh-RAH-pah”) fields supply Zimbabwe and Botswana with this resource, whose Cullinan discovery was celebrated by Louis Botha (“LOO-ee BOO-uh-tuh”) and the “Randlords.” Before gold, this prototypical conflict resource kicked off the “mineral revolution” around the Big Hole in Kimberley, Northern Cape. For 10 points, De Beers gained a monopoly on what precious gems?

ANSWER: **diamond**s [accept blood **diamond**s or conflict **diamond**s or war **diamond**s or hot **diamond**s or red **diamond**s; accept **Diamond** Rush; accept **Diamond** Coast; accept **kimberlite** until “Kimberley” is read; accept *Flight of the* ***Diamond*** *Smugglers*; prompt on gemstones or jewels or precious stones or igneous rocks until “gems” is read; prompt on minerals until read; prompt on peridotite or crystals]

<World History>

5. On this holiday, food is set out on leaf plates for crows and dogs are garlanded as gatekeepers by the “self-worshiping” Newar (“nay-WAHR”) people. Towards the end of this holiday, women who live far away from their brothers send prayers through the moon, though more commonly they invite their brothers into their homes. The Sikh holiday of Bandi Chhor Divas (“BUN-dee shor DEE-vuss”) overlaps with this holiday, which includes the day of Bhai Dooj. This is the most common holiday on which participants make powder patterns called rangoli and place *diya*s around their homes. On the third day of this holiday, participants make offerings to a goddess of prosperity in the Lakshmi Pūjā. For 10 points, fireworks are set off as part of what Hindu holiday that celebrates the victory of light?

ANSWER: **Diwali** [or **Deepawali** or **Dipavali**; accept **Bhai Dooj** or **Bandi Chhor Divas** until each is read; accept **Bhaubeej**, **Bhai Tika**, **Bhai Phonta**, or **Bhratri Dwitiya**; accept **Tihar** or **Yamapanchak**a; prompt on Lakshmi Pūjā until read]

<Religion>

6. Sadegh Hedayat (“saw-deg uh heh-DEH-yat”), the author of *The Blind Owl*, stated in critical pieces that this author subscribed to a philosophy of agnostic skepticism. A work by this author describes Destiny playing with men on a “Chequer-board of Nights and Days.” In that work by this author, the topics of creation and the possibility of destruction by the creator are discussed by some clay pots. A line by this author was translated to “Oh, Wilderness were Paradise enow!” by Edward FitzGerald, whose loose English translation of this author popularized his lines about how “the Moving Finger writes, and, having writ, / Moves on.” For 10 points, what Persian poet used the rhyme scheme AABA for the quatrains in his *Rubaiyat* (“roo-bai-YAHT”)?

ANSWER: Omar **Khayyam** [or Ghiyāth al-Dīn Abū al-Fatḥ ʿUmar ibn Ibrāhīm al-**Khayyāmī** Nishapuri or Ghiyāth al-Dīn Abū al-Fatḥ ʿUmar ibn Ibrāhīm al-**Khayyāmī** Nīsābūrī; prompt on Edward FitzGerald until read by asking “what author did he most famously translate?”; prompt on Nīsābūrī or Nishapuri]

<World Literature>

7. A US-based economist from this country worked with Thomas Tørsløv (“TUR-slurv”) and Ludvig Wier (“VEE-ur”) on a 2018 paper that estimated that 40 percent of multinational profits are “shifted.” That economist from this country claimed that eight percent of the world’s wealth is hidden in tax havens in his book *The Hidden Wealth of Nations*. An economist from this country argued that a U-shaped curve, rather than the Kuznets curve, should describe income data in a book that advocates for a progressive global wealth tax. That economist from this country theorized that wealth inequality rises when “*r* is greater than *g*” in his surprise 2013 bestseller *Capital in the Twenty-First Century*. For 10 points, economists from what country include Gabriel Zucman and his PhD advisor, Thomas Piketty?

ANSWER: **France** [or **French** Republic or République **française**]

<Social Science>

8. Robert Tarjan co-developed an algorithm that identifies a certain type of these things by computing their “lowpoint.” All possible [emphasize] *pairs* of these things are considered in Johnson’s algorithm. The removal of order “root *n*” of these things is the subject of the planar separator theorem. Each of these things corresponds to one row and one column in an adjacency matrix. The term [read slowly] “big O of the number of these things times the log of the number of these things” appears in the complexity of Dijkstra’s (“DIKE-struh’s”) algorithm, which begins with all of these things unvisited and constructs the shortest path between two of them. For 10 points, the indegree is the number of directed arcs leading to one of what parts of graphs that are connected by edges?

ANSWER: **node**s [or **vertices** or **vertex**; accept cut **vertices**; prompt on V]

<Other Science>

9. Frank Gehry turned down commissions in this city until he designed its Lou Ruvo Center for Brain Health. *The Wizard of Oz* inspired a literal yellow brick road in the lobby of a building in this city and the emerald green stripes on its façade. Factions called the “Greys” and “Whites” debated a book titled for this city that contrasts a New York farm building shaped like a duck with “decorated sheds.” Curved mirrors at the zenith of a building in this city emit the world’s brightest light beam. This city’s architecture was scrutinized in a book by Steven Izenour, Denise Scott Brown, and Robert Venturi titled for “Learning from” it. Egyptian architecture inspired one of this city’s hotels to feature a sphinx and pyramid tower. For 10 points, the Luxor and Bellagio hotels are casinos on what city’s namesake “strip”?

ANSWER: Las **Vegas**, Nevada [accept Las **Vegas** Strip; accept Luxor Las **Vegas**; accept *Learning from Las* ***Vegas***; prompt on “Sin City”] (The building in the second line is the MGM Grand Hotel.)

<Other Arts (Architecture)>

10. This phenomenon is represented by the non-constant terms in the Briot (“BREE-oh”) formula, which is sometimes named for its use by the German company Schott (“shot”) AG. In an equation, this phenomenon is accounted for by terms of the form [read slowly] “B times x squared over x squared minus C.” The Sellmeier (“SELL-mai-er”) equation can model both this phenomenon’s “normal” and “anomalous” forms. Differentiating a statement named for this phenomenon yields the group velocity. A wave’s wavenumber and frequency are linked by “relations” named for this phenomenon, which causes chromatic aberration. This phenomenon occurs if the angle of refraction by a material depends on wavelength. For 10 points, name this phenomenon that allows prisms to split white light into different colors.

ANSWER: **dispersion** [or **dispersive**; accept **dispersion** relations; accept chromatic **dispersion**; accept **dispersion** equation; accept **dispersive** prisms]

<Physics>

11. One of these artworks from Archaic Greece that depicts a wreathed kouros is named for Rampin*.* Cosimo de Medici holds a scroll in one of these works by Giambologna (“jahm-boh-LOH-nyah”). Alessandro Leopardi finished one of these works by Verrocchio that depicts Bartolomeo Colleoni. Many Renaissance sculptures of this type were modeled on Roman ones, such as the destroyed *Regisole* and one depicting Marcus Aurelius with an outstretched arm. A Donatello sculpture of this type depicts Erasmo de Narni, who was nicknamed “Honey Cat.” E. M. Falconet created a sculpture of this type that depicts Peter the Great in bronze. For 10 points, *Gattamelata* is what type of sculpture that depicts a rider on a certain animal?

ANSWER: **equestrian** statues [accept statues of people on **horse**s or **horse**back; accept **rider**s or **riding** a horse or equivalents; accept *Bronze* ***Horse****man* or *Mednyy* ***Vsadnik***; accept *Rampin* ***Rider*** or *Rampin* ***Horse****man*; prompt on statues or sculptures by asking “what action or pose does the sculpture depict?” until “sculptures” is read; prompt on bronze sculptures until read]

<Painting & Sculpture>

12. This deity entered people’s houses in the form of a skunk or a bundle of ashes to portend death. After an elderly couple disturbed the heavens by cooking a fish, this non-water deity tore off their heads and placed them on their rears, creating the first dogs. This deity caused the rains to stop for several years after kidnapping and marrying a flower goddess. This deity served as bait for a primordial crocodile, from whose body he made the land with his brother. That brother was later tricked by this deity into sleeping with his sister. After this deity lost his foot to Cipactli (“sih-PAHKT-lee”), he replaced it with a piece of obsidian, giving him a name meaning “Smoking Mirror.” For 10 points, name this Aztec god who had a rivalry with his brother Quetzalcōātl (“ket-zoll-KOH-ah-tull”).

ANSWER: **Tezcatlipōca** [or Black-**Tezcatlipōca**; or **Yoalehecatl**; or **Acxomocuil**; prompt on “Smoking Mirror” until read] (The flower goddess was Xōchiquetzal. Quetzalpetlatl was Quetzalcōātl’s sister.)

<Mythology>

13. This book criticizes the “narrow theory of life” propounded by Calvinism, arguing that “pagan self-assertion” is what increases a person’s self-worth. This book’s fifth and final chapter, “Applications,” expands on two earlier maxims, the first being that generally, “the individual is not accountable to society for his actions.” This book argues that the suppression of beliefs, whether they be true, partially true, or false, is always detrimental to society and is an example of “the tyranny of the majority.” This book, published shortly after the death of its author’s wife Harriet, holds that power can only be exercised if it is used for the purpose of “[preventing] harm to others.” For 10 points, name this book about freedom by John Stuart Mill.

ANSWER: ***On Liberty***

<Philosophy>

14. In this technique, either DpnI (“D-p-n-one”) treatment or UNG (“ung”) are used to decrease carryover contamination. A nonspecific version of this technique replaces a reagent with random hexamers. To increase specificity, a reagent used in this technique can be inactivated by a monoclonal antibody that is removed in a “hot start” procedure. In this technique, several components are usually combined into a master mix that is then aliquoted into a strip of tubes that contain individual samples. This technique uses a thermal cycler to go through denaturation, annealing, and elongation steps. This technique was developed by Kary Mullis. For 10 points, name this technique that uses a thermostable substance such as Taq (“tack”) to amplify a specific segment of DNA.

ANSWER: **PCR** [or **polymerase chain reaction**; accept RT-**PCR** or reverse transcription **polymerase chain reaction**]

<Biology>

15. A dissenting opinion in this case argued that its central issue “lies about like a loaded weapon, ready for the hand of any authority that can bring forward a plausible claim of urgent need.” In the 1980s, it was discovered that this case’s outcome was likely influenced by Charles Fahy’s suppression of the Ringle Report. Hugo Black’s majority opinion in this case drew upon an earlier case that involved a university student accused of violating a curfew. John Roberts called this case “morally repugnant” in a 2018 majority opinion that upheld the Trump travel ban. The plaintiff in this case challenged an order issued by General John DeWitt and the legality of Executive Order 9066. For 10 points, name this Supreme Court case that upheld the World War II internment of Japanese-Americans.

ANSWER: ***Korematsu*** *v. U. S.* [or ***Korematsu*** *v. United States*] (The earlier case was *Hirabayashi v. United States*.)

<American History>

16. A Richard Wilbur poem titled for this sort of place describes “a wild supposed bloom” and is addressed to the author of an earlier poem titled for one of these places, whose speaker feels “a breezy call of incense-breathing morn.” A poem set in this sort of place describes “many a gem of purest ray serene” and was written by a member of a group of poets named for these places that included Thomas Parnell and Robert Blair. A narrator in one of these places imagines being spotted by a “hoary-headed swain” while pondering “rude forefathers of the hamlet,” such as a “guiltless” “Cromwell.” One of these places is noted to be “far from the madding crowd’s ignoble strife” in a poem that begins, “the curfew tolls the knell of parting day.” For 10 points, name this sort of place that titles an elegy by Thomas Gray.

ANSWER: **churchyard** [or **graveyard**; accept **cemetery** or **burial** ground; accept “Elegy Written in a Country **Churchyard**”; accept “In a **Churchyard**”; accept **Graveyard** Poets; prompt on church; prompt on grave]

<British Literature>

17. A chiral ligand with two of these functional groups features a ferrocene core and is named after Josi Puleo (“HOH-see POO-lay-oh”). These compounds form three of the four ligands around a central rhodium atom in Wilkinson’s catalyst. These compounds are paired with the azo compound DEAD (“D-E-A-D”) to facilitate nucleophilic substitutions of alcohols in the Mitsunobu (“MIT-soo-no-boo”) reaction. An SN2 (“S-N-two”) reaction between alkyl (“AL-keel”) halides and a triphenyl-substituted (“tri-FEEN-ull”) example of these compounds can form ylides (“ILL-ids”) upon deprotonation (“dee-PRO-tuh-nay-shun”) in the Wittig (“VIT-ig”) reaction. For 10 points, name these compounds that feature organic substituents on phosphorus.

ANSWER: **phosphine**s [or **phosphane**s; or organo**phosphine**s; accept triphenyl**phosphine** or triphenyl**phosphane**; accept triphenyl**phosphine** oxide or **TPPO**; accept tertiary **phosphine**s; prompt on organophosphorus compounds until “phosphorus” is read; prompt on Josiphos ligands]

<Chemistry>

18. In this country in 2002, a French stuntman cycled at a world-record 107 miles per hour down the gravel slopes of the active volcano of Cerro Negro. This country contains the Western Hemisphere’s second-largest rainforest, the Bosawás Biosphere Reserve. This country’s citizens use the term “mar dulce,” meaning “sweet sea,” to refer to a body of water upon which the Concepción and Maderas volcanoes formed the island of Ometepe (“OM-ay-TEP-ay”). A Dutch pirate names this country’s city of Bluefields. A waterfall on the Tipitapa River prevents the migration of bull sharks out of this country’s primary lake. This is the southernmost of the two countries whose eastern shores were called the “Mosquito Coast.” For 10 points, what country contains Central America’s largest lake and Lake Managua?

ANSWER: **Nicaragua** [or Republic of **Nicaragua** or República de **Nicaragua**; accept Lake **Nicaragua** or Lago de **Nicaragua**] (The other Mosquito Coast country is Honduras.)

<Geography>

19. Vincent de Beauvais’s *Speculum Maius* popularized a history of these people written by the papal envoy Giovanni da Pian del Carpine. According to legend, a trumpeter at Saint Mary’s Church was killed while warning against an invasion by these people that ended with the head of Duke Henry the Pious being paraded on a spike at the Battle of Legnica (“leg-NEET-sah”). Under the command of a general nicknamed the “valiant dog of war,” these people feigned retreat to win the Battle of Kalka River. These people issued edicts known as *yarlyks* from their capital at Sarai. After defeating these people at the Great Stand on the Ugra, Ivan the Great ended their “yoke” of vassalage over Moscow. For 10 points, name these people who invaded Eastern Europe in the 1240s under Batu Khan.

ANSWER: **Mongol**s [or **Moŋğol**çuud; accept **Mongol** Empire or Yeke **Monggol** Ulus; accept **Tatar**s or **Tatar**lar; accept **Borjigin** or **Borjigid** or **Kiyat** clan; accept **Golden Horde** or Ulug **Ulus** or **Ulus** of Jochi; accept **Mongol** yoke or **Tatar** yoke]

<European History>

20. At the end of a 1983 novel in this language, a musician stabs herself in the shoulder. A sick pianist’s condition worsens in a novella in this language after a writer asks her to play excerpts from the title opera. In a novel in this language, a pianist descends into self-destruction after meeting Glenn Gould. In another novel in this language, a student has a sadomasochistic relationship with the title *Piano* *Teacher*. This language of *The Loser* was used for a novel whose protagonist writes *The Apocalypse with Figures* and contracts syphilis as part of a demonic deal for 24 years of musical genius. A soldier hums a song about a linden tree that he heard while visiting his tubercular cousin at a sanatorium in a novel in this language titled *The Magic Mountain*. For 10 points, name this language used by Elfriede Jelinek (“el-FREE-duh YELL-in-ek”) and Thomas Mann.

ANSWER: **German** [or **Deutsch**] (The second line refers to Mann’s *Tristan*. Thomas Bernhard wrote *The Loser*.)

<European Literature>

TB. Jan Vansina’s book on “antecedents” to this modern-day country describes Tsobe ritualists backing its ruler Sentabyo, who caught smallpox from a cloth from Gisaka. This country’s Nyiginya dynasty was abolished in 1961 after the “Wind of Destruction,” an anti-pastoralist “social revolution” led by Grégoire Kayibanda. This country’s army funded the Rally for Congolese Democracy by forcing Kivu’s Walikale people to mine coltan in the Second Congo War. Leaders of this country’s “Patriotic Front” met in Tanzania to end its civil war in the Arusha Accords before an assassin shot down its president Juvénal Habyarimana (“hob-gyah-ree-mah-nah”). Paul Rusesabagina’s (“roo-say-sah-bah-gyee-nah’s”) Hôtel des Mille Collines (“oh-tell day meel kaw-leen”) saved people from the Interahamwe in this former Belgian mandate north of Burundi. For 10 points, what country’s president Paul Kagame (“kah-GAH-may”) led a Tutsi force during its 1994 genocide?

ANSWER: **Rwanda** [or Republic of **Rwanda** or Repubulika y’u **Rwanda** or République du **Rwanda** or Jamhuri ya **Rwanda**; accept Kingdom of **Rwanda**; or Ubwami bw’u **Rwanda** or Royaume du **Rwanda**; accept **Rwandan** Genocide; accept **Rwandan** Civil War; accept **Rwandan** Patriotic Front; accept **Rwandan** Revolution or Révolution **rwandaise**; accept *Antecedents to Modern* ***Rwanda***; prompt on Ruanda​​–Urundi]

<TB (World History)>

Bonuses

1. When working with materials with this hazard, one should have a class D fire extinguisher on hand. For 10 points each:

[10h] Potassium hydride, diethyl (“dai-ETH-ill”) zinc, and *n*-butyl (“n-BYOO-till”) lithium have what property that enables them to form metal fires upon exposure to any moisture?

ANSWER: **pyrophoric**ity [prompt on combustible]

[10m] To avoid metal fires, pyrophoric reagents like *n*-butyl lithium are stored in this common solvent composed of an impure mixture of a straight-chain hydrocarbon with molecular formula C6H14 (“C-six-H-fourteen”) and its isomers.

ANSWER: **hexane**s [accept **petroleum ether**; reject “pentane” or “heptane” or “cyclohexane”]

[10e] Reactions involving pyrophoric reagents are typically run with an inert atmosphere of either argon or this diatomic gas that makes up about 78 percent of the Earth’s atmosphere.

ANSWER: **nitrogen** gas [or **N2** (“N-two”)]

<Chemistry>

2. Marauders known as écorcheurs (“ay-kor-SHUR”)harassed French peasants during this conflict. For 10 points each:

[10e] Name this conflict during which the French hired Genoese crossbowmen to fight against Edward III at the Battle of Crécy. Joan of Arc helped fend off the siege of Orléans during this conflict​​.

ANSWER: **Hundred Years**’ War [or La guerre de **Cent Ans**; prompt on Anglo-French Wars; prompt on Edwardian War or Lancastrian War by asking “that was a phase of what broader conflict?”]

[10m] One of these people named John Hawkwood led many English and French Hundred Years’ War veterans in the White Company. These mercenary captains fought various wars in Italy.

ANSWER: **condottiere** (“cone-dote-TYEH-ray”) [or **condottiero**; or **condottieri**]

[10h] This French term refers to the fast, devastating raids on the countryside that were carried out by Edward III’s troops during the Hundred Years’ War.

ANSWER: **chevauchée**s (“sheh-voh-SHAYs”)

<European History>

3. One of these processes named for California has led to an increased occurrence of the cot-caught (“cot-cawt”) merger. For 10 points each:

[10m] Name this type of linguistic process, whose best-known example resulted in a change in the pronunciation of certain sounds in English between about 1400 and 1700.

ANSWER: **vowel shift**s [accept Great **Vowel Shift**; accept California **vowel shift**; prompt on linguistic shifts]

[10h] The Great Vowel Shift was first studied by this Danish historical linguist, whose namesake “cycle” describes the appearance and disappearance of preverbal and postverbal elements in negations.

ANSWER: Otto **Jespersen** (“YESS-per-suhn”) [or Jens Otto Harry **Jespersen**; accept **Jespersen**’s cycle]

[10e] Jespersen advocated for a choice of mid vowel sounds in Ido (“AI-doh”), an offshoot of this most widely-spoken international auxiliary language. It was constructed by L. L. Zamenhof (“ZAH-mun-hoff”).

ANSWER: **Esperanto** [or la **lingvo internacia**; accept Reformed **Esperanto**]

<Social Science>

4. Helen Edmundson’s 2012 play *The Heresy of Love* is based on the life of this author. For 10 points each:

[10h] Name this author who defended women’s rights to education in a letter that is discussed in the book *The Traps of Faith*.

ANSWER: Sor **Juana** [or Sor **Juana** Inés de la Cruz; or Juana Inés de Asbaje y **Ramírez** de Santillana; prompt on de la Cruz or de Asbaje or de Santillana] (Octavio Paz wrote *The Traps of Faith*.)

[10e] Sor Juana wrote her *Reply to Sister Filotea* while serving as a nun in this modern-day country. Her play *The Divine Narcissus* links Christ’s crucifixion to the human sacrifices performed by this country’s native Aztecs.

ANSWER: **Mexico** [or **Méjico**; or United **Mexican** States or Estados Unidos **Mexicanos**; reject “Estados Unidos”]

[10m] The *Reply to Sister Filotea* claims that if Aristotle had done this activity, he would have written much more. Tita de la Garza expresses herself through this activity in a 1989 Laura Esquivel novel, whose title references this activity.

ANSWER: **cook**ing [or making **food**; accept making **drink**s or making hot **chocolate**; accept **baking** or **culinary** work or being a **chef** or similar] (The novel is *Like Water for Chocolate*.)

<World Literature>

5. Members of this kingdom generally lack the ability to photosynthesize and often have chitin in their cell walls. For 10 points each:

[10e] Name this kingdom whose divisions include Basidiomycota and Ascomycota. This kingdom includes both yeasts and molds.

ANSWER: **fungi** [or **fungus**es]

[10h] Like plants, fungi cycle between a haploid gametophyte phase and a diploid sporophyte phase, a phenomenon known by this name.

ANSWER: **alternation** of **generations** [or **metagenesis**]

[10m] This is the name for the root-like main body of a fungus, which is composed of interconnected hyphae.

ANSWER: **mycelium** [or **mycelia**]

<Biology>

6. A serialized chapter regarding the inquest of a death in this manner cites the work of “two pestilent Frenchmen” to counter skeptics like the author’s friend George Henry Lewes (“looz”). For 10 points each:

[10h] Name this manner of death that befalls the alcoholic owner of a rag-and-bone shop where Nemo dies of an opium overdose.

ANSWER: **spontaneous** human **combust**ion [or equivalents such as **sudden**ly catching on **fire**; prompt on combustion; prompt on burning up or equivalents]

[10m] After the miserly Mr. Krook spontaneously combusts in this novel, found among his possessions is a letter that proves Nemo to be the father of Esther Summerson. This novel concerns the interminable court case *Jarndyce and Jarndyce*.

ANSWER: ***Bleak House***

[10e] This author, whose belief in the dangers of spontaneous combustion turned out to be unfounded, drew on his experience as a law clerk to write *Bleak House*. He also wrote *Great Expectations*.

ANSWER: Charles **Dickens** [or Charles John Huffam **Dickens**]

<British Literature>

7. The pre-Socratic philosopher Democritus proposed an early theory of the void in his argument for the existence of these things. For 10 points each:

[10e] Name these basic units of matter whose name is derived from the Greek for “indivisible.”

ANSWER: **atom**s [or **atom**os; accept **atom**ism or **atom**ic theory]

[10h] The Roman philosopher Lucretius proposed that atoms will spontaneously undergo this process, creating randomness in the universe. This process titles a Stephen Greenblatt book about the birth of Renaissance culture.

ANSWER: the **swerve** [or **clinamen**; accept *The* ***Swerve****: How the World Became Modern*; prompt on descriptive answers such as changing direction or deflecting by asking “what is the term that Lucretius used?”]

[10m] Lucretius was a proponent of this earlier philosopher’s atomic theory. This philosopher believed that the greatest good in life is achieved by pursuing both *aponia* and *ataraxia*.

ANSWER: **Epicurus** [or **Epikouros**; accept **Epicureanism**]

<Philosophy>

8. The Mitchell Map was used during negotiations of this treaty to create the borders of a newly independent country. For 10 points each:

[10h] Name this treaty that awarded a country an enclave known as the Northwest Angle.

ANSWER: Treaty of **Paris** [or Treaty of **1763**; reject answers that indicate a Treaty of Paris from another year]

[10m] Albert Gallatin and this diplomat traveled to the Convention of 1818 to resettle territory exchanged by the Treaty of Paris. This man signed an 1817 treaty with Charles Bagot that helped demilitarize the Great Lakes.

ANSWER: Richard **Rush** [accept **Rush**–Bagot Treaty]

[10e] Lumberjacks from this American state almost sparked a border dispute during the Aroostook War. This New England state was created out of Massachusetts as a result of the Missouri Compromise.

ANSWER: **Maine** [or **ME**]

<American History>

9. Norman Mailer reused the title of *The Executioner’s Song* from a chapter of his book about this person, whom he once dubbed “America’s biggest ego.” For 10 points each:

[10e] Name this person whose influence on hip-hop and rap is demonstrated by his spoken-word album *I Am the Greatest*. This boxer quipped “I’m so mean, I made medicine sick” and “float like a butterfly, sting like a bee.”

ANSWER: Muhammad **Ali** [or Cassius **Clay**; or Cassius Marcellus **Clay**, Jr.] (Mailer’s book is *The Fight*.)

[10m] Ali said, “When Liston reads about [this group]” visiting me, he’ll get so mad I’ll knock him out in three!” The KKK targeted this group after one of them wondered in an interview if Christianity would outlive rock ’n’ roll.

ANSWER: The **Beatles** [or George **Harrison**, John **Lennon**, Paul **McCartney**, AND Ringo **Starr**; or **George**, **John**, **Paul**, AND **Ringo**; accept answers in any order; prompt on any individual Beatle]

[10h] This New York poet and baseball fan praised Ali as the “smiling pugilist” in the liner notes for *I Am the Greatest*. At George Plimpton’s request, this author wrote a poem with Ali about Ernie Terrell’s impending annihilation.

ANSWER: Marianne **Moore** [or Marianne Craig **Moore**]

<Other Academic>

10. This composer often performed alongside violinist Joseph Joachim (“YOH-sef yoh-AH-keem”) and dedicated a set of *Three Romances for Violin and Piano* to him. For 10 points each:

[10h] Name this composer of a piano trio in G minor and the *Soirées Musicales*.

ANSWER: **C**lara **Schumann** [or Clara **Wieck**; prompt on Schumann]

[10e] Schumann and Joachim performed several works by this German composer, who wrote his violin concerto for Joachim and used a “Clara theme” in his Intermezzi. This composer of the *Hungarian Dances* wrote a celebrated “Lullaby.”

ANSWER: Johannes **Brahms**

[10m] Joachim wrote the most commonly performed version of this part of Brahms’s violin concerto. Versions of these short, virtuosic solo passages written by Clara Schumann for a Mozart piano concerto were rediscovered in 2019.

ANSWER: **cadenza** [or **cadenze**]

<Classical Music>

11. Answer the following about the axis mundi in Asian religions, for 10 points each.

[10e] In this kami-venerating belief system, Izanami and Izanagi walked around an axis mundi called the Heavenly Pillar before having sex and then birthing the islands of the Japanese archipelago.

ANSWER: **Shintō** [or **Shinto**ism; or **kami-no-michi**]

[10m] This temple complex was built to symbolize Mount Meru, part of the Hindu axis mundi, but it was turned into a Buddhist site under King Jayavarman VII in the 12th century CE.

ANSWER: **Angkor Wat** [prompt on Angkor or Yaśodharapura] (It was built by the Khmer people in Cambodia.)

[10h] This faith considers the jiba to be the axis mundi and where humans were created. This new religion was founded in the 19th century by Nakayama Miki, who encouraged her followers to live the “joyous life.”

ANSWER: **Tenrikyō** [or **Tenri**ism]

<Religion>

12. Paintings in this style include *Four Darks on Red* and *Magenta, Black, Green on Orange*. For 10 points each:

[10m] Name this popular style of abstract expressionism whose two-word name refers to the use of large blocks of a single solid hue.

ANSWER: **color field** painting

[10e] Agnes Martin praised this Latvian-American artist for having “reached zero” through his color field paintings, which decorate his namesake chapel in Houston.

ANSWER: Mark **Rothko** [or Markus Yakovlevich **Rothkowitz**; accept **Rothko** Chapel]

[10h] Helen Frankenthaler created color field paintings using this technique, in which she applied paint diluted with turpentine directly to unprimed canvas, creating watercolor-like effects.

ANSWER: **soak stain** technique

<Painting & Sculpture>

13. Answer the following about hospitality in mythology, for 10 points each.

[10h] This Greek word for hospitality encompasses reciprocity and mutual gift-giving. Zeus had an epithet referring to this word, highlighting his role as a protector of strangers.

ANSWER: **xenia** (”K’SEN-yah”) [accept Zeus **Xenio**s; accept theo**xenia**]

[10m] The Irish warrior Cú Chulainn (“koo KULL-in”) was bound to eat the meat of one of these animals from an old woman, breaking a taboo called a geas (“gaysh”) and weakening him before his final battle.

ANSWER: **dog**s [or **madra**í; accept **dog** meat; prompt on cú]

[10e] In Cherokee myth, these phenomena began after Pine Tree allowed Sparrow to stay with him to avoid the cold. Persephone’s return to and from the Underworld personified the changing of these natural phenomena.

ANSWER: **season**s [or **horae**]

<Mythology>

14. During this event, Victor Hugues (“oog”) attempted to capture Martinique (“mar-tih-NEEK”), communicated with Julien Fédon’s (“zhool-yen fay-dawn’s”) rebels in Grenada (“gruh-NAY-duh”), and sent aid to the Black Caribs of Saint Vincent and “brigands” of Saint Lucia. For 10 points each:

[10e] What 1791–1804 revolution led by Toussaint L’ouverture (“too-san loo-vair-ter”) inspired later revolts of enslaved Afro-Caribbean sugar workers in Curaçao (“K’YOO-ruh-sao”), Demerara, and Jamaica?

ANSWER: **Haitian** Revolution [or Révolution **haïtienne** or Revolisyon **ayisyen**; or **Haiti**’s Revolution or Revolution of **Saint-Domingue**]

[10h] Although this criollo (“cree-oh-yo”) leader admired the Haitian Revolution, he fought against Jean-Pierre Boyer’s (“zhawn-pyair bwah-YAY’s”) occupation of Santo Domingo. This founding father of the Dominican Republic names Hispaniola’s highest peak.

ANSWER: Juan Pablo **Duarte** [or Juan Pablo **Duarte** y Diez; accept Pico **Duarte**]

[10m] Duarte founded a secret society named for this word, which names a battle won by Francisco Morazán (“moh-rah-SAHN”) in Honduras. On an island of this name, indentured cocoa and sugar workers founded the largest Indo-Caribbean population.

ANSWER: **Trinidad** [accept La **Trinitaria** or Los **Trinitarios**; accept La Isla de la **Trinidad**; accept Battle of La **Trinidad**; accept Holy **Trinity** or **Trinitarian**ism]

<World History>

15. A work in this genre ends, “I taught women how to speak…but God, how to make them shut up?” For 10 points each:

[10h] Name this genre that titles a poem that describes the “huge laughing cockroaches” on the top lip of a “Kremlin Highlander.”

ANSWER: **epigram** [accept “Stalin **Epigram**”]

[10e] The author of that epigram, Osip Mandelstam, was a 20th-century writer from this country, like Marina Tsvetaeva, Alexander Blok, and Mikhail Bulgakov.

ANSWER: **Soviet Union** [or **USSR**; or **Union of Soviet Socialist Republics**; or **CCCP** or **Soyuz Sovetskikh Sotsialisticheskikh Respublik**; prompt on Russia or Rossiya]

[10m] Mandelstam was a close friend of this Soviet poet, who described standing in line in front of a Leningrad prison in the section “Instead of a Preface” of her poem “Requiem.” She also wrote “Poem without a Hero.”

ANSWER: Anna **Akhmatova** [or Anna Andreyevna **Gorenko**] (The poem in the first line is an epigram by Akhmatova.)

<European Literature>

16. This force is approximately independent of speed in a simple model proposed by Charles-Augustin de Coulomb (“sharls-OH-goo-stan duh COO-loam”). For 10 points each:

[10m] Name this force whose “dry” form is subject to Amontons’s laws.

ANSWER: **friction** [accept dry **friction** or kinetic **friction**]

[10e] The first of Amontons’s laws asserts that dry friction is independent of this quantity. Pressure can be defined as force divided by this quantity.

ANSWER: contact **area** [or surface **area**]

[10h] The contact area between two bodies is smaller than it seems due to these microscopic surface imperfections. Under a load, these features deform until the actual contact area is large enough to support the load.

ANSWER: **asperities** [or **asperity**]

<Physics>

17. Princess Ennigaldi’s prestige as an entu dedicated to this god allowed her to establish what may have been the world’s first museum. For 10 points each:

[10h] Name this god who displaced Marduk as Babylon’s chief deity under Ennigaldi’s father Nabonidus, who prays to this god, Ishtar, and Shamash on the Harran Stela. Ur-Nammu built the Ziggurat of Ur for this lunar deity.

ANSWER: **Nanna** [or **Sīn** or variants like **Su’en** or **Sen**; or **Nannar**; accept **Dilimbabbar** or **Ašimbabbar**; accept Ennigaldi-**Nanna** or Bel-Shalti-**Nannar**; reject “Inanna”]

[10e] Ennigaldi-Nanna was chosen as an entu of Sīn via this general process, which Roman religious figures like haruspices and augurs performed by interpreting entrails, auspices, dreams, and oracles.

ANSWER: **divination** [or word forms like **divine**rs; or interpreting **omen**s; or interpreting **divine** will or **divine** favor or the **will** of the **god**s or equivalents; or determining the **future**; or **fortune**-telling or **prophecy** or **prediction**s or equivalents; accept interpreting **symptom**s or **Sakikkū**]

[10m] Sheep liver omen texts are key sources on the migrations of speakers of these languages like the Amorites, who founded Babylon, Isin, and Larsa. Sumerian was eclipsed by the Akkadian language from this family.

ANSWER: **Semitic** languages [accept **Canaanite** languages; accept East **Semitic** or Northwest **Semitic**; prompt on Afroasiatic languages or Hamito-Semitic languages]

<Other History>

18. Maria Martin painted many of the backgrounds for a book by this artist that he intended to print on “double elephant” sized paper to make its subjects feel life-size. For 10 points each:

[10h] Name this artist who, at the advice of Napoleon’s nephew Charles Lucien Bonaparte, sailed to the UK from Philadelphia to commission the engraving of a book’s 435 hand-colored prints.

ANSWER: John James **Audubon** [or Jean-Jacques **Rabin**]

[10e] Wood engraver Thomas Bewick’s (“BYOO-wick’s”) “History of” this general class of non-quadruped animals in Great Britain predates Audubon’s illustrated field guide to them “in America” by nearly 30 years.

ANSWER: **bird**s [or **avian**s or **Aves** or **Neornithes**; accept ***Bird****s of America*; accept *A History of British* ***Bird****s*; prompt on specific types of birds like falcons or eagles by asking “what general class of animals do they belong to?”]

[10m] This critic praised Bewick’s engravings of feathers as “the most masterly thing ever done in woodcutting.” This critic’s most famous negative review described an oil painting as “flinging a pot of paint in the public’s face.”

ANSWER: John **Ruskin** (The second review panned Whistler’s *Nocturne in Black and Gold*.)

<Other Fine Arts (Mixed Visual Arts)>

19. One of these things prompts the protagonist’s wife Sarah Ruth to beat him with a broom in the Flannery O’Connor short story “Parker’s Back.” For 10 points each:

[10h] Name these things that inspire stories like “The Veldt” and “The Concrete Mixer” in a collection titled for a man described by these things.

ANSWER: **tattoo**s [or **illustration**s; accept *The* ***Illustrated*** *Man*; prompt on artworks or drawings or similar]

[10e] This author of *The Illustrated Man* previously included the character in his novel *Something Wicked This Way Comes*. This author also wrote *Fahrenheit 451*.

ANSWER: Ray **Bradbury** [or Ray Douglas **Bradbury**]

[10m] “Parker’s Back” appears in this O’Connor collection. In this collection’s title story, a woman gives the young Black boy Carver a penny, then has a stroke after Carver’s mother strikes her in retaliation.

ANSWER: ***Everything That Rises Must Converge***

<American Literature>

20. Welch’s *t*-test is used to test whether two populations have equal values for this statistic. For 10 points each:

[10e] Name this statistic found by adding up the data and dividing by the number of data points.

ANSWER: **mean** [accept **average**; accept population **mean** or sample **mean**]

[10m] For more than two populations, this technique tests for differences in means without multiple *t*-tests. Ronald Fisher devised this technique, which is based on partitioning its eponymous statistic.

ANSWER: **ANOVA** [or **analysis of variance**]

[10h] ANOVA is conducted using this distribution. By definition, it is the distribution of a ratio of two chi-squared variables times the ratio of their degrees of freedom.

ANSWER: **F**-distribution [or **F**-ratio; or **Snedecor**’s distribution or Fisher–**Snedecor** distribution]

<Other Science>

TB. Tetramethylsilane is used as a reference at zero parts per million in instruments that perform this technique. For 10 points each:

[10e] Name this spectroscopic technique whose “proton” form produces peaks that can be split by nearby distinct protons. Powerful magnets are used to probe chemical structure in this technique.

ANSWER: **NMR** spectroscopy [or **nuclear magnetic resonance** spectroscopy; accept proton **NMR** or other types of NMR; prompt on spectroscopy]

[10m] NMR can be used to deduce this quantity for a reaction. This quantity equals the actual amount of isolated product divided by the theoretical amount of product that can be formed.

ANSWER: **yield** [accept percent **yield** or reaction **yield**; accept NMR **yield**; prompt on reaction efficiency]

[10h] To find NMR yield, one of these entities must have been spiked into the sample. Examples of these species for proton NMR include dibromomethane and trichloroethylene.

ANSWER: internal **standard**s [accept NMR **standard**s; accept **standard** peaks; prompt on peaks; prompt on references]

<TB (Chemistry)>