2022 ACF Fall

Packet C by CWRU C, Maryland A, Mira Loma B, Sheffield A

Edited by Steven Liu, Arjun Nageswaran, Dean Ah Now, Raymond Chen, Jim Fan, Sean Farrell, Evan Knox, Daniel Ma, Ned Tagtmeier, Eric Yin, and Walter Zhang.

Tossups

1. This composer dedicated his third violin concerto, as well as a shorter A minor piece for violin and orchestra, to Pablo de Sarasate. Another piece by this composer includes a [read slowly] "G B-flat G A B-flat" motif on the xylophone and begins with a harp playing twelve D's and a *scordatura* violin playing a tritone on open strings; that piece by this composer depicts skeletons rising from their graves on Halloween. This composer quoted that motif in a movement of a later work named "Fossils," which comes after a glass harmonica is played in "Aquarium" and before a cello solo opens "The Swan." For 10 points, name this French composer of *Danse Macabre* and *Carnival of the Animals*.

ANSWER: Camille <u>Saint-Saëns</u> [or Charles-Camille <u>Saint-Saëns</u>] (The piece in the first line is *Introduction and Rondo Capriccioso*.)

<Classical Music>

2. One work by this thinker traces the development of race-thinking into racism, which formed the basis for imperialism and bourgeois capture of the state. Another work by this thinker defines labor, work, and action as the elements of the *vita activa*, which has been neglected in favor of the *vita contemplativa*. A different work by this author of *The Human Condition* criticizes the title man for misinterpreting the categorical imperative and ends by asserting "you must hang." That work, which discusses the "banality of evil," was her report on a Nazi war criminal on trial in the title city. For 10 points, name this German author of *The Origins of Totalitarianism* and *Eichmann in Jerusalem*.

ANSWER: Hannah **Arendt** [or Hannah Arendt **Blücher**; or Johanna **Arendt**] <Philosophy>

3. Directional dependence in this phenomenon's dipole is thought to be caused by Doppler shifts due to movement of the Milky Way in space. This phenomenon first became visible at the surface of last scattering, which formed due to the recombination of nuclei and electrons. This phenomenon's spectrum was observed to be identical to a blackbody by the COBE ("KOH-bee") telescope. Arno Penzias and Robert Wilson discovered this phenomenon in 1965 after thinking that its uniform distribution was caused by bird droppings. This phenomenon has a constant temperature of 3 kelvin. For 10 points, name this oldest known electromagnetic radiation, a leftover from the Big Bang.

ANSWER: <u>cosmic microwave background</u> radiation [or <u>CMB</u>R; prompt on <u>cosmic background</u> radiation or <u>CBR</u>] <Other Science>

4. This author noted that the "moral" of one of his poems is that "beauty is twice / beauty / and what is good is doubly / good." The speaker of a poem by this author notes that "she loved me / sometimes I loved her too" but laments that "loving is so short / forgetting is so long." Another of this author's poems opens with a call to "rise up to be born with me, brother." The last poem in a collection by this author of *Elemental Odes* repeats the lines "It is the hour of departure" and "in you everything sank!" For 10 points, "Tonight I Can Write (The Saddest Lines)" appears in what Chilean poet's collection *Twenty Love Poems and a Song of Despair*?

ANSWER: Pablo <u>Neruda</u> [or Ricardo Eliécer Neftalí <u>Reyes</u> Basoalto] (The poem in the first line is "Ode to my Socks.")

<World/Other Literature>

- 5. The oxide of an element in this group is produced along with carbon dioxide by namesake kilns and has a name prefixed "quick-." Another element in this group names a mineral whose varieties include aquamarine and emerald. An element in this group reacts with a halide to create a Grignard ("grin-YARD") reagent and forms a milky white hydroxide used to treat constipation. Since the valence shell of this group consists of only a completely filled s orbital, cations ("CAT-ai-ons") formed from this group possess a charge of 2-plus. For 10 points, name this group that includes beryllium, magnesium, and calcium and makes up the second-leftmost column of the periodic table. ANSWER: alkaline earth metals [or alkaline earth elements or Group 2 or IIA; reject "alkali metals"] <Chemistry>
- 6. During this conflict, Eliza Roberts helped lead an institution established after the poor conditions faced by soldiers were reported by Sidney Herbert. During this conflict, the Jamaican-born Mary Seacole founded a "British Hotel" to care for wounded officers. During this conflict, a nurse pioneered the use of pie charts to improve conditions at a hospital at Scutari ("SCOO-tuh-ree"). A nurse was nicknamed "the Lady with the Lamp" for her work tending to soldiers wounded during this conflict's battles at Balaclava and Sevastopol. For 10 points, Florence Nightingale healed soldiers wounded during what 1850s conflict named for a Black Sea peninsula?

 ANSWER: Crimean War [or Kirim Savaşı; or Vostochnaya voyna]

 <European History>
- 7. In a novel, a retired judge shows his disdain for this country by eating a native dish with a fork and a knife. An undocumented immigrant from this country is one of the protagonists of *The Inheritance of Loss*. A character from this country survives a train crash while clutching a page from a short story by a Russian author. A married immigrant from this country goes on a date with Miranda to the Mapparium, where he whispers to her, "You're sexy." In the title story of a collection, a character visiting this country confesses that her son Bobby is illegitimate to the tour guide Mr. Kapasi. For 10 points, name this country, the setting of the title story of *Interpreter of Maladies* by Jhumpa Lahiri.

ANSWER: <u>India</u> [or Republic of <u>India</u> or <u>Bhārat</u> Gaṇarājya] (The third line refers to *The Namesake* by Jhumpa Lahiri.)

<American Literature>

8. This commodity's production, which is evidenced by pits from Tanzania's KM2 and KM3 sites, may have been spread by "Chifumbaze complex" in Mozambique. Mande producers of this commodity who formed the numu caste were revered as sorcerers. Around 1000 BCE, this commodity may have been independently manufactured by the Nok culture in Nigeria. The region around the Nubian city of Meroë ("MAIR-oh-ee") was deforested for fuel to produce this commodity at the requisite high temperatures. African craftsmen produced this commodity with bloomery furnaces that yielded a slag-rich mixture during smelting. For 10 points, the Bantu Expansion spread the use of what metal that names the era after the Bronze Age?

ANSWER: <u>iron</u> [or <u>Fe</u>; accept <u>iron</u>working; accept wrought <u>iron</u>; accept <u>Iron</u> Age or African <u>Iron</u> Age; reject "meteoric iron"]

<Other History>

9. This thinker studied the paradox that men are expected to marry but are considered unclean when they get close to women. This author of "The Barbarian Status of Women" viewed advertising as a form of waste necessary to ensure continuing profits for prestige corporations. The financial strength of sports like football were posited by this thinker to be a side effect of "conspicuous leisure." This thinker described lower-status groups practicing "pecuniary emulation" to gain status through wealth. This thinker names a class of luxury goods whose demand rises with price. For 10 points, name this Norwegian-American economist who wrote *The Theory of the Leisure Class*. ANSWER: Thorstein <u>Veblen</u> [or Thorstein Bunde <u>Veblen</u>]

10. According to *The Tale of the Bamboo Cutter*, Mount Fuji's name derives from one of these people burning a letter for Kaguya to see in heaven. One of these people was seduced by a fox spirit as punishment for lusting over a statue of Nǚwā. After his death, the corpse of the official Gǔn gave birth to one of these people who used magic soil to control China's flooding. Ninigi gifted a sword, mirror, and jewel as sacred treasures to one of these people who claimed descent from Amaterasu. Legendarily, the Chinese zodiac originates from a race organized by a "Jade" figure with this title who is the most revered deity in heaven. For 10 points, Yǔ the Great was a legendary holder of what imperial title?

ANSWER: emperor [accept emperor of China or Huángdì; accept emperor of Japan or Tennō</u>; accept Jade
Emperor or Yù Huáng or Yù Dì</u>; accept sovereign or huáng; accept ruler or monarch or wáng]
Awing or wáng]
emperor or <a

11. A tutor in this play misunderstands an allusion to "pagan authors" after another character calls her "Egeria." In this play, a character's smoking is praised because "a man should always have an occupation of some kind." A character in this play stops his friend from having sandwiches that were "ordered specially" for his aunt before eating one himself. That character in this play invents a "permanent invalid" friend as an excuse for avoiding obligations, which he calls "Bunburying." Despite being found as a baby in a handbag at Victoria Station, a man in this play is allowed to marry Gwendolen Fairfax. For 10 points, Jack Worthing and Algernon Moncrieff both pretend to have the title name in what play by Oscar Wilde?

ANSWER: The <u>Importance of Being Earnest</u> [or The <u>Importance of Being Earnest</u>, A Trivial Comedy for Serious People]

<British Literature>

<Social Science>

12. This organ is composed of follicular cells and parafollicular cells. Autoimmune diseases of this organ can be treated using propylthiouracil ("PRO-pill-thigh-oh-uracil"). This organ reduces levels of calcium in the bloodstream by secreting calcitonin. This organ names tyrosine-derived hormones whose release is signaled by TSH. Antibodies attack this organ in Hashimoto's disease. This organ's activity is elevated in Graves' disease. This butterfly-shaped gland is swollen in patients with a goiter. For 10 points, name this gland in the neck that regulates metabolism and whose function depends on iodine.

ANSWER: thyroid gland

<Biology>

13. In First Nephi Chapter 8, Lehi had a vision of a partially white one of these objects at the end of an iron rod running alongside a river. Jesus said believers can tell mountains to throw themselves into the sea after he inflicts one of these objects with a curse. While interacting with one of these objects, Zacchaeus was called to by Jesus. A holiday named for these objects commemorates an event in which the phrase "the Lord needs it" was used to requisition a donkey. Parts of these objects are carried around while shouting "Hosanna" in a procession on the first day of Holy Week, which marks Jesus's triumphal entry into Jerusalem. For 10 points, tinsel and star-shaped toppers are common ornaments for what plants grown as Christmas decorations?

ANSWER: <u>tree</u>s [accept <u>wood</u>; accept <u>branch</u>es; accept palm <u>frond</u> or palm <u>leaves</u> or palm <u>leaf</u>; accept specific types of tree like <u>fig</u> trees, <u>sycamore</u> trees, <u>sycamore-fig</u> trees, or <u>palm</u> trees; accept <u>Palm</u> Sunday; accept Christmas <u>tree</u>s; accept <u>fruit</u>; accept <u>Tree</u> of Life]
<Religion>

- 14. The "Structure and Distribution" of these geographic features title Charles Darwin's first monograph, in which he theorized a subsidence ("sub-SIDE-ence") model of their development. These geographic features can be categorized as "platform" or "fringing" depending on their relation to the continental shelf. One of these features named the "Lighthouse" surrounds Belize's Great Blue Hole. The city of Cairns is an entry point for tourists visiting one of these locations that has been damaged by mass bleaching events. These features outlast the erosion of a central landform to form an atoll ("uh-TOLE"). The largest of these features in the world stretches over 1500 miles along the eastern Australian coast. For 10 points, the "Great Barrier" is an example of what underwater ecosystems? ANSWER: coral <u>reef</u>s [accept <u>atoll</u>s until read; accept Great Barrier <u>Reef</u>; accept Lighthouse <u>Reef</u>] <Geography>
- 15. In a 2003 film in this language, a detective discovers a serial killer who targets women wearing red in the rain. This language was used for the *Vengeance Trilogy*, whose second film features an extended hallway fight scene with a hammer. In a film in this language, a first grader's ghost sighting leads to a later hinted diagnosis in the "Schizophrenia Zone." English and this language were used for a 2020 film centered on a family in Arkansas whose barn burns down, causing them to harvest the titular minari. In a film in this language, the fake art therapist "Jessica" is stabbed at a birthday party after her family infiltrates the rich Park household. For 10 points, name this native language of the director of *Parasite*, Bong Joon-ho.

ANSWER: <u>Korean</u> [or <u>Hangugeo</u>] <Other Fine Arts>

16. In a story by this author, the narrator is astonished when his fiance Lll ("L-L-L") leaves him for his uncle, who unusually still lives at the bottom of the ocean. This author described a love triangle that ends when the moon pulls away from the Earth in one of several stories narrated by the shapeshifting Qfwfq ("Q-F-W-F-Q"). In one of this author's novels, the leader of the Organization of Apocryphal Power, Ermes Marana, fraudulently translates novels to the confusion of the main character and Ludmilla. That novel by this author begins by describing the reader's experience while trying to read it. For 10 points, you, the reader, are the protagonist of what Italian author's second-person novel *If on a winter's night a traveler*?

ANSWER: Italo <u>Calvino</u> [or Italo Giovanni Calvino <u>Mameli</u>] <European Literature>

17. The Hóngwǔ Emperor praised the founder of this religion in the Hundred-Word Eulogy. During the Qīng ("cheeng") Dynasty, followers of this religion simultaneously led the Dungan and Panthay revolts. During the Boxer Rebellion, imperial forces fought alongside a group of soldiers who practiced this religion called the Gānsù Braves. The largest ethnic group in China that practices this religion is the Huí ("HWAY"). The Chinese government has been accused of committing genocide by placing a people who mainly practice this religion in "re-education camps" in Xīnjiāng ("SHIN-jahng"). For 10 points, name this religion practiced in China by Uyghurs ("WEE-gurs"), who follow the teachings of the prophet Muhammad.

ANSWER: <u>Islam</u> [or al-<u>'Islām</u>; accept <u>Muslim</u>s; accept <u>Sunni</u> Islam] <World History>

18. A type of this instrument records the deflection of a silicon cantilever ("CAN-tih-lee-ver") as it runs across a sample in order to sense "atomic force." A type of this instrument scans an electron beam on the specimen's surface, allowing for any thickness of sample to be used. Another type of this instrument relies on electron transmission and requires thinly sliced samples of less than 100 nanometers. "Phase contrast" is a technique for viewing transparent specimens with the "optical" type of this instrument, on which samples are placed between a glass slide and coverslip. For 10 points, Antonie van Leeuwenhoek ("LAY-von-hook") was the first scientist to use what instrument to view an enlarged image of a small structure?

ANSWER: <u>microscope</u> [or <u>microscopy</u>; accept specific types such as light <u>microscope</u> or scanning electron <u>microscope</u> or transmission electron <u>microscope</u> or atomic force <u>microscope</u>]

<Physics>

19. This artist jumps with furniture and three cats suspended in midair in a Philippe Halsman photo inspired by a nude portrait of this artist's wife caressing a swan's neck. A museum in Figueres ("fee-GAY-ress") features a sofa that this artist modeled after Mae West's lips. This artist lost a film contest to Max Ernst with his version of *The Temptation of St. Anthony*, which depicts four spindly-legged elephants. This creator of the *Lobster Telephone* showed ants swarming at the bottom left of his most famous painting, which is a dream-like interpretation of Camembert cheese melting. For 10 points, *The Persistence of Memory* is a painting by what Spanish Surrealist? ANSWER: Salvador **Dalí** [or Salvador **Dalí**, Marquess of Dalí of Púbol; or Salvador Domingo Felipe Jacinto **Dalí** i Domènech; accept "**Dalí** Atomicus"] <Painting/Sculpture>

20. A company that primarily sold this good took a 1906 "quarantine tour" under the leadership of Andrew Preston and Minor Keith and used a non-federal "Great White Fleet" to transport it. A variety of this good was wiped out in the 1950s by Panama disease. Land near the Cuyamel ("COO-yah-mell") river helped Sam Zemurray make a fortune from this good's Gros Michel ("groh mee-SHELL") variety. This good appears in a term coined by O. Henry to describe a poor, exploited country that relies on a single export. The United Fruit Company grew tons of this fruit on plantations in Honduras and Guatemala. For 10 points, name this fruit that gave its name to those Latin American "republics."

ANSWER: **banana**s [or **Musa**; accept **banana** republics; prompt on <u>fruit</u> or <u>food</u> until "United Fruit Company" is read]

<American History>

Bonuses

1. Staccato notes called teruah ("teh-roo-AH") and a strong blast called the tekiah gedolah ("teck-ee-AH ghid-oh-LAH") are played on this instrument. For 10 points each:

[10m] Name this instrument that typically consists of a ram's horn. It is blown every weekday morning leading up to Rosh Hashanah, then around 100 times a day during the holiday.

ANSWER: shofar ("shoh-FAR")

[10e] A blowing of the shofar ("shoh-FAR") accompanies the Ne'ila ("neh-ee-LAH") prayer that closes out this holiday. This last of the High Holy Days involves fasting and confessions as part of a "Day of Atonement."

ANSWER: Yōm Kīppūr

[10h] Hearing the sound of a shofar is one of the 613 commandments, or mitzvot, that make this body of Jewish law collected in the *Mishneh Torah*. Teshuvot are questions and responses about this body of law.

ANSWER: <u>halakha</u> [or <u>halachot</u>; or <u>halakhoth</u>] <Religion>

2. At the beginning of a novel, a character with this occupation is described as looking "rather pleasantly like a blond Satan." For 10 points each:

[10e] Name this occupation central to hardboiled fiction. Many film noir pictures adapt novels about people with this occupation whose offices are visited by femme fatale characters.

ANSWER: <u>detective</u>s [accept private <u>detective</u>s or private <u>investigator</u>s or <u>PI</u>s]

[10m] Humphrey Bogart played the aforementioned Sam Spade in the movie adaptation of a Dashiell Hammett novel titled for a statue of this animal.

ANSWER: **falcon** [accept *The Maltese Falcon*; prompt on bird]

[10h] This other author featured the hardboiled detective Phillip Marlowe in a novel where Marlowe uncovers the increasingly convoluted story of the bookseller Geiger's blackmailing of Carmen.

ANSWER: Raymond **Chandler** [or Raymond Thornton **Chandler**] (That novel is *The Big Sleep*.) <American Literature>

3. The Archives of Terror detailed crimes committed by Paraguayan leader Alfredo Stroessner ("ess-TROZE-nair") as part of this project. For 10 points each:

[10h] Name this CIA-funded project that supported right-wing dictatorships in South America. As part of this program, Orlando Letelier ("leh-tell-YAIR") was killed during a car bombing at Embassy Row.

ANSWER: Operation **Condor** [or Operación **Cóndor** or Plan **Condor**]

[10m] The assassination of Orlando Letelier was "personally ordered" by this Chilean dictator who helped establish Operation Condor.

ANSWER: Augusto Pinochet ("ow-GOOST-oh pee-no-CHAY") [or Augusto Jose Ramon Pinochet Ugarte]

[10e] João Goulart ("zh'WOW goo-LAR"), a former leader of this country, was assassinated as part of Operation

Condor in an incident exposed by this country's newspaper the Folha de São Paolo ("FOAL-yuh jee sao PAO-loo").

ANSWER: **Brazil** [or Federative Republic of **Brazil**; or República Federativa do **Brasil**]

<World History>

4. These molecules often malfunction at temperatures over 37 degrees Celsius. For 10 points each:

[10e] Name these biological catalysts that include pepsin and often have names ending in the three-letter suffix "-ase" ("aze").

ANSWER: enzymes

[10m] This remarkably inefficient enzyme makes up about half of the protein content of a chloroplast, and is likely the most abundant protein on Earth. This enzyme fixes carbon in the first step of the Calvin cycle.

ANSWER: <u>RuBisCO</u> ("roo-BISS-koh") [or <u>RuBPCase</u> or <u>RuBPco</u> or <u>ribulose-1,5-bisphosphate</u> <u>carboxylase/oxygenase</u>]

[10h] By interfering with protein-cleaving enzymes, protease ("PRO-tee-aze") inhibitors such as atazanavir ("at-uh-ZAN-uh-veer") target this pathogen, which is treated using multiple drugs in the HAART ("hart") method.

ANSWER: **HIV** [or **human immunodeficiency virus**; reject "AIDS"] <Biology>

5. Philip Vera Cruz led a strike of unionized farm workers against grape growers in a California town named for this family. For 10 points each:

[10h] Identify this [emphasize] *middle* name of a president who received policy advice from Mary McLeod Bethune and the Black Cabinet alongside his wife.

ANSWER: **<u>Delano</u>** [accept **<u>Delano</u>** grape strike; prompt on <u>FDR</u> or Franklin <u>Delano Roosevelt</u> by asking "which name?"; reject "Roosevelt" or "Franklin Roosevelt"]

[10e] Dolores Huerta and this activist joined the 1965 grape workers strike in Delano, California. This leader of the United Farm Workers used the slogan "sí, se puede."

ANSWER: Cesar Chavez [or Cesar Estrada Chavez]

[10m] Chavez's UFW was headquartered in a building with this name, which referred to the amount of land it occupied. Earlier, this much land and a mule were promised to freedmen in General Sherman's Special Field Orders No. 15.

ANSWER: <u>forty acres</u> [accept The <u>Forty Acres</u>; accept "<u>forty acres</u> and a mule"] <American History>

6. James Q. Wilson hypothesized that the "great" decline in this behavior since the 1990s was caused in part by removal of lead from water. For 10 points each:

[10e] Name this type of behavior that breaks the laws in a given nation. It is contrasted with deviance, which is behavior that contravenes social norms.

ANSWER: **crime** [or word forms like **criminal** behavior; accept "great **crime** decline"]

[10m] This sociologist made the functionalist argument that crime must exist in order to strengthen ethical norms. He also popularized the term anomie ("ANN-uh-mee") for the loss of norms in books like *Suicide: A Study in Sociology*.

ANSWER: Émile **Durkheim** [or David Émile **Durkheim**]

[10h] This type of theft is not considered criminal despite making up two-thirds of all theft by monetary value. Types of it include misclassification and illegal deductions.

ANSWER: <u>wage</u> theft <Social Science>

7. This point is the basis of barycentric coordinates. For 10 points each:

[10h] The reference frame named after what point is commonly used in classical mechanics because it guarantees that a system has zero total momentum?

ANSWER: <u>center of mass</u> [accept <u>center-of-mass</u> reference frame; prompt on <u>COM</u>; prompt on <u>barycenter</u>] [10e] The center of mass of an isolated system travels at a constant velocity due to this physicist's third law of motion, which states that for every action there is an equal and opposite reaction.

ANSWER: Isaac Newton

[10m] These events are analyzed in a common demonstration of the center of mass frame. The coefficient of restitution equals one if this type of event is "elastic," meaning it conserves kinetic energy.

ANSWER: **collision**s [accept elastic **collision**s] <Physics>

8. A poem from this country concludes about how "the book of events is always open halfway through" in a poem about "Love at First Sight." For 10 points each:

[10h] Name this country of origin of a poet who wrote a book length poem titled *A Treatise on Poetry* and the nonfiction book *The Captive Mind*.

ANSWER: **Poland** [or Republic of **Poland** or Rzeczpospolita **Polska**]

[10e] Wisława Szymborska ("vee-SWAH-vah shim-BOR-skah") and Czeslaw Milosz ("CHESS-waff MEE-woash") both won this international award, which Olga Tokarczuk ("toe-CAR-chuck") won in 2018.

ANSWER: **Nobel** Prize in **Literature** [prompt on Nobel Prize]

[10m] Tomas Tranströmer was the most recent Nobel laureate in Literature from this country. Selma Lagerlöf, who wrote the children's book *The Wonderful Adventure of Nils*, was this country's first Nobel laureate in Literature.

ANSWER: <u>Sweden</u> [or <u>Sverige</u>; or Kingdom of <u>Sweden</u> or Konungariket <u>Sverige</u>] <European Literature>

9. Kerry James Marshall referenced the name of this art movement in a 1993 painting depicting a Black barbershop. For 10 points each:

[10h] Name this art movement, also known as Neoplasticism, whose members included the creator of several lozenge paintings. The artist of *Counter-Compositions*, Theo van Doesburg, also belonged to this movement.

ANSWER: **<u>De Stijl</u>** [or "<u>The Style</u>"; accept <u>**De Style**</u>]

[10m] Lozenge paintings by this Dutch De Stijl artist include his *Victory Boogie Woogie*. That painting expanded on the red, yellow, and blue squares used in this artist's earlier *Broadway Boogie Woogie*.

ANSWER: Piet **Mondrian** [or Pieter Cornelis **Mondriaan**]

[10e] Mondrian and Doesburg's early compositions recalled the works of George Braque and other analytical artists from this movement. Picasso's *Three Musicians* was painted in the synthetic phase of this movement.

ANSWER: <u>Cubism</u> <Painting/Sculpture>

10. A song on this album starts with the line "hello, new world, all the boys and girls, I got some true stories to tell." For 10 points each:

[10m] Name this 2022 album that includes "N95." This album's track "Auntie Diaries" was both praised for addressing transphobia and criticized for its use of anti-gay slurs.

ANSWER: Mr. Morale [or Mr. Morale and the Big Steppers]

[10e] This rapper behind Mr. Morale and the Big Steppers also released popular albums like To Pimp A Butterfly and his Pulitzer-winning DAMN.

ANSWER: Kendrick <u>Lamar</u> [or Kendrick Lamar <u>Duckworth</u>]

[10h] Kendrick Lamar's cousin is this other rapper who has collaborated with him on songs like "family ties" and "range brothers." This rap artist's most recent album was *The Melodic Blue*.

ANSWER: **Baby Keem** [or Hykeem Jamaal **Carter** Jr.] <Pop Culture>

11. A history of this empire was written after its author was exiled to a monastery for attempting to overthrow her brother John II. For 10 points each:

[10h] Name this empire whose ruler Alexius I was the subject of a namesake biography by Anna Comnena. The *Alexiad*'s seventh and eighth books discuss wars between this empire and the Scythians.

ANSWER: <u>Byzantine</u> Empire [or <u>Eastern Roman</u> Empire; or <u>Byzantium</u>; or <u>Greek</u> Empire; or Basileion ton <u>Romaion</u>; prompt on <u>Eastern</u> Empire; reject "Rome" or "Roman Empire"]

[10e] In the *Alexiad*, Anna Comnena discusses the Byzantine Empire's role in the first of these Christian quests to retake the Holy Land. Pope Urban II helped initiate the first of these events at the Council of Clermont.

ANSWER: <u>Crusade</u>s [accept First <u>Crusade</u>]

[10m] The first six books of the *Alexiad* chronicle conflicts between the Byzantine Empire and the forces of Robert Guiscard ("ghee-SKAR"), an adventurer born in this region. William the Conqueror was a duke of this region.

ANSWER: <u>Normandy</u> [or <u>Normandie</u> or <u>Normanz</u>; accept the duchy of <u>Normandy</u>] <European History>

12. This composer and musicologist assembled a collection of more than 200 Edison Cylinders of folk songs. For 10 points each:

[10h] Name this Australian composer of wind band pieces like "Horkstow Grange" and "Lost Lady Found" in his *Lincolnshire Posy*.

ANSWER: Percy <u>Grainger</u> [or Percy Aldridge <u>Grainger</u>; or George Percy <u>Grainger</u>]

[10m] Grainger was a native performer of this wind instrument, invented in 1840 by a Belgian who nearly died 10 times before creating it. This instrument is a woodwind due to its single reed, despite being made of brass.

ANSWER: <u>sax</u>ophone [accept specific types like alto <u>sax</u>ophone, tenor <u>sax</u>ophone, baritone <u>sax</u>ophone, or soprano <u>sax</u>ophone]

[10e] Grainger's *Lincolnshire Posy* is a collection of folk songs from this country. This country's folk song "Greensleeves" was apocryphally written by its king, Henry VIII, for Anne Boleyn.

ANSWER: <u>England</u> [accept <u>UK</u> or <u>United Kingdom</u>; accept Kingdom of <u>England</u> or Tudor <u>England</u>] <Classical Music>

13. Dynamic memory allocation with malloc and free as well as pointer arithmetic are reasons for this language's lack of memory safety. For 10 points each:

[10e] Name this programming language, to which Bjarne Stroustrup ("strow-strup") appended "++" ("plus-plus") in the name of a different object-oriented language.

ANSWER: $\underline{\mathbf{C}}$ [accept $\underline{\mathbf{C}}$ ++]

[10m] This company announced Carbon, an experimental replacement for C++, in July 2022. Other tools made by this company include TensorFlow and its namesake "Analytics" for web traffic.

ANSWER: **Google** [accept **Google** Analytics]

[10h] Google's Carbon is envisaged to prioritize memory safety, similar to this language developed by Mozilla. This language's compiler maintains safety through a borrow checker.

ANSWER: **Rust** <Other Science>

14. In a novel by this author, "curious observations" like "in America, racism exists but racists are all gone" are posted to the "lifestyle blog" *Raceteenth*. For 10 points each:

[10h] Name this author whose novel *Half of a Yellow Sun* describes the servant Ugwu and the Englishman Richard during the Biafran War. In another of this author's novels, Ifemelu and Obinze reunite after returning to Lagos.

ANSWER: Chimamanda Ngozi Adichie (The unnamed novel is Americanah.)

[10e] Adichie wrote a "feminist manifesto in fifteen suggestions" framed as one of these texts addressed to her friend in *Dear Ijeawele*. Epistolary novels are traditionally composed of a series of these texts.

ANSWER: letters

[10m] Ifemelu starts reading this author on the recommendation of Obinze's mother, who reads this author's novel *The Heart of the Matter* twice a year. This author wrote about a "whiskey priest" in *The Power and the Glory*.

ANSWER: Graham **Greene** [or Henry Graham **Greene**]

<World/Other Literature>

15. In Book 4 of *the Odyssey*, Telemachus visits Sparta to learn of his father's imprisonment by this nymph, a situation that Menelaus discovered when he trapped Proteus. For 10 points each:

[10m] Name this woman with whom Odysseus is stranded after his crew eats the cattle of Helios. This nymph sang to enchant Odysseus into being her lover for seven years before she released him.

ANSWER: Calypso

[10e] Odysseus's crew ate the sacred cattle despite the warnings of this daughter of Helios. This sorceress's singing enticed all but one of the shipmates before she turned them into pigs.

ANSWER: Circe

[10h] Odysseus later relates his tales of Calypso and Circe to this woman's father, King Alcinous ("al-SIN-oh-us"), after a bard's singing makes him cry. This Phaeacian ("fee-AY-shun") woman discovers Odysseus after he is shipwrecked while leaving Calypso's island.

ANSWER: Nausicaa [or Nausicaä or Nausikaa]

<Mythology>

16. A Depression-era protest movement named for this national capital commandeered freight trains and made stops at towns such as Moose Jaw and Medicine Hat. For 10 points each:

[10m] Name this national capital, the destination of that Depression-era "trek." On the way to this city, the trekkers used a transcontinental "Pacific Railway" that had been built with the aid of James J. Hill in the late 1800s.

ANSWER: Ottawa [accept On-to-Ottawa Trek]

[10e] The On-to-Ottawa Trek began with a Workers' Unity League strike in this city, the most populous in the Canadian province of British Columbia.

ANSWER: Vancouver

[10h] The Trek was stopped by the Bennett government and the Royal Canadian Mounted Police in Regina ("ruh-JAI-nuh"), an unpopular move that resulted in this longest-serving Canadian PM being reelected later in 1935.

ANSWER: William Lyon Mackenzie **King** [or W. L. M. **King**]

<Other History>

17. The Iowa-based Summit company is planning to construct a 4.5 billion-dollar pipeline used in conjunction with this technology. For 10 points each:

[10h] Name this technology, which was utilized by the short-lived Petra Nova project. This technology, the subject of the 45Q tax credit, has been criticized by environmental groups for not addressing fossil fuel usage.

ANSWER: <u>carbon capture</u> [or <u>CCS</u>; or <u>carbon sequestration</u> or <u>carbon storage</u> or <u>carbon sequestration</u>; accept <u>CO</u>₂ or <u>carbon</u> dioxide in place of "carbon" prompt on <u>reducing carbon</u> dioxide emissions or <u>control</u>ling <u>emissions</u> or <u>reducing pollution</u> or equivalents]

[10m] Carbon capture is one of the approaches in the "all-of-the-above" climate policy pushed by this California Republican, the current House Minority Leader.

ANSWER: Kevin McCarthy [or Kevin Owen McCarthy]

[10e] This environmental proposal co-sponsored by Alexandria Ocasio-Cortez did not include carbon capture as a favored approach. This proposal's name references Franklin D. Roosevelt's policies to combat the Great Depression.

ANSWER: Green New Deal [or GND]

<Current Events>

18. Answer the following about LGBTQ+ ballroom culture, for 10 points each:

[10e] Aspects of this common ballroom practice like "realness" were captured in the documentary *Paris is Burning*. This practice is performed by cross dressing "queens."

ANSWER: drag [accept drag queen]

[10h] Willi Ninja is the "grandfather" of this ballroom dance form that involves posing as if in a magazine photoshoot. It too gained popular attention from its inclusion in *Paris is Burning*.

ANSWER: **voguing** [or **vogue**]

[10m] This popular musician's 1990 song "Vogue" included voguing choreographed by members of the House of Xtravaganza.

ANSWER: **Madonna** [accept Madonna Louise **Ciccone**]

<Other Fine Arts>

19. The only copy of a poem about this character is found in the Cotton Nero A.x. manuscript alongside the poems *Patience* and *Cleanliness*, which were likely by the same author. For 10 points each:

[10m] Name this character who is revealed to be Lord Bertilak. In a Middle English poem by an anonymous author sometimes known as the "Pearl Poet," this character participates in a "beheading game" with Sir Gawain.

ANSWER: the **Green Knight** [accept Sir Gawain and the **Green Knight**]

[10h] Gawain conceals that he had received this magical item from Lord Bertilak's wife because she claimed that it had the power to help him survive the beheading game.

ANSWER: girdle [or belt; accept a green girdle]

[10e] Gawain is the nephew of this character, whose "death" titles a prose work by Sir Thomas Malory in which this king leads the Knights of the Round Table from Camelot.

ANSWER: King <u>Arthur</u> [or King <u>Arthur</u> Pendragon; accept *Le Morte d'<u>Arthur</u>*]

<British Literature>

20. This scientist's wife Clara Immerwahr ("IMM-ur-varr"), the first woman to earn a chemistry PhD in Germany, committed suicide after he weaponized chlorine gas in World War I. For 10 points each:

[10m] Name this "father of chemical warfare" whose eponymous process removed the need for guano mining in the production of explosives.

ANSWER: Fritz <u>Haber</u> ("HAH-bur") [accept <u>Haber</u> process; prompt on <u>Haber-Bosch</u> process]

[10e] The Haber process synthesizes this compound from nitrogen and hydrogen gas. The use of this compound in fertilizer is credited with saving millions of lives.

ANSWER: ammonia [or NH₃]

[10h] Haber and this other German co-name a "cycle" used to calculate the energies needed to synthesize ionic compounds. This scientist introduced the probabilistic interpretation of the wavefunction.

ANSWER: Max **Born** [accept **Born**—Haber cycle]

<Chemistry>