

Chicago Open 2014:

Packet by Los Editors

Edited by Austin Brownlow, Andrew Hart, Ike Jose, Gautam & Gaurav Kandlikar, and Jacob Reed

Tossups

1. The 6/8 last movement of a work by this composer begins with a C-major scale in parallel, first-inversion triads in the right hand, and its first movement begins with the right hand playing a difficult trill figure in thirds. The first movement of a C-minor piano work by this composer has a hand-crossing-filled second theme that starts in E-flat minor, after a first theme that is mostly accompanied by left-hand octave tremolos. The first movement of that piano sonata by this composer alternates between Allegro con brio and dramatic Grave [“GRAH-vay”] sections full of big chords in dotted rhythms. He published his first three piano sonatas, in F minor, A major, and C major, as his Opus 2. His drone-filled D-major 15th piano sonata is nicknamed “Pastorale,” and he labelled his Opus 27 piano sonatas “quasi una fantasia.” For 10 points, name this composer whose Piano Sonatas Nos. 8 and 14 are nicknamed “Pathétique” and “Moonlight.”

ANSWER: Ludwig van **Beethoven**

2. In a process named for Arlon Hunt, this compound is used to expel alcohol in resorcinol-formaldehyde and tetra-ethyl-ortho-silicate mixtures, which are used to form aerogels. “Ambidextrous” surfactants developed by Keith Johnston are block-copolymers that have a hydrophilic block as well as a block that stabilizes the interface with this compound. Hagiwara et al. pioneered the use of this compound as a solvent for precipitation polymerization reactions using gamma-irradiation or AIBN as initiators. Uranium enrichment via the Silex process, and cutaneous lesion removal and resurfacing, both employ lasers in which molecules of this compound undergo population inversion. Its IR spectrum has an antisymmetric stretch at 2345 wavenumbers. It is used as a solvent for dry cleaning and for extracting caffeine in its supercritical form. For 10 points, name this compound that undergoes deposition to form dry ice.

ANSWER: **carbon dioxide** [accept **CO2**]

3. One of this writer’s works is a critique of Jean Watteau framed as a diary of a female friend of Watteau’s family. One of his books closes by comparing our senses to a whirlpool and notes it has become the trend “to regard all things and principles of things as inconstant modes or fashions.” In that book, this author also stated that “to burn always with this hard gemlike flame, to maintain this ecstasy, is success in life.” This author of *Imaginary Portraits* wrote a book that analyzes the *chante-fable* of *Aucassin and Nicolette* and the *chanson de geste* of *Amis et Amiles* in its second chapter. That book contains this author’s essay “The School of Giorgione,” which claims that painting can never aspire to the condition of music. In that book, this man recounts the death of Johann Winckelmann, the making of Michelangelo’s poetry, and the construction of the philosophical system of Pico della Mirandola. For 10 points, name this art critic and essayist who authored *The Renaissance*.

ANSWER: Walter [Horatio] **Pater**

4. An article that tries to explain the limits of this concept advocates transcendental naturalism and introduces the idea of cognitive closure to argue that humans are incapable of ever articulating this concept. A book on this topic that advocates “constructive naturalism” to explain “The Missing Shade of You” was written by Owen Flanagan and is named for this concept “reconsidered.” The unknowability of this concept is accepted by New Mysterians, which is promoted by sexual harasser Colin McGinn, who talks about this concept in *The Mysterious Flame*. Joseph Levine argues that a physical substrate is potentially necessary to understand this idea in a paper that introduces “the explanatory gap.” A science of this concept using first-person and third-person data is advocated by David Chalmers, who also introduced the “hard” form of the “problem” of this concept. For 10 points, a philosophical problem requires an explanation of what state of being aware?

ANSWER: [problem of] **consciousness** [accept the **mind-body** problem or the **explanatory gap** before “reconsidered”]

5. In multiple Romantic treatments of this man, columns are decorated with a motif in which a snake coils around the pillar. A thunderstorm and the planet Astarte behind some clouds can be seen in an outdoor depiction of this man that shows hundreds of people on three different stories of his mile-long palace. Gilbert Stuart told the artist of another depiction of this man that the perspective was wrong, so that artist destroyed the canvas and spent 25 years working on-and-off on another depiction. That version, which shows this man next to some gold drinking vessels, was inspired by John Martin’s treatment and was painted by Washington Allston. In a Baroque painting, this man wears a richly brocaded cloak over his under-robe and has a white turban as his open hand hangs over the head of a woman in red who almost drops a jug of liquid. In that version, this man gazes at an ethereal, disembodied hand. For 10 points, name this Biblical character whom Rembrandt showed looking at the Writing on the Wall.

ANSWER: **Belshazzar** [accept **Belshazzar’s Feast**]

6. This man’s nephew of the same first and last name allegedly suffered brain trauma from the climate of the West Indies while serving as Governor of Jamaica. That man of this name was stripped of the rank of general for “conduct unbecoming of a soldier and a gentleman” when he entered a boys’ school and offered students money to flog them. This man himself instigated a lifelong feud with a superior officer after he took orders from Admiral Watson at Fort William. In 1761, this man defeated the Count de Lally and forced the French to retreat to Pondicherry, where they soon surrendered, during the Third Carnatic War. This commander-in-chief of East India Company forces during the Second Anglo-Mysore War was known as “Bahadur” for his bravery by the sepoy troops loyal to him. For 10 points, what subordinate of Robert Clive at the Battle of Plassey and victor at the Battle of Wandiwash was a prominent and amusingly named Irish-born British soldier in India?

ANSWER: [Sir] Eyre **Coote** [accept **Coote Bahadur**]

7. The speaker of one of this man’s poems sees “teeny black devils” in his urine. One of this man’s poetry collections ends with “My Secret Identity Is,” a poem whose two lines states “The room is empty, and the window is open.” In one of his books, he compared the artist of *Medici Slot Machine* to Spiderman riding a web of occult forces. In one of this author’s prose poems, he imagined a misbehaved child who averts the end of days when he grabs the Beast of the Apocalypse by its tail. This author included “Demonology” in his collection that sketches New York City life, titled *Night Picnic*. He treats mythological subjects in many collections, including *The Book of Gods and Devils* and *Charon’s Cosmology*. He wrote about an artist that assembled trash into art in *Dime Store Alchemy: The Art of Joseph Cornell*. This author is a poetry co-editor for the *Paris Review*, and he won the 1990 Pulitzer Prize for his collection of prose poetry *The World Doesn’t End*. For 10 points, name this Serbian-American poet.

ANSWER: Charles **Simić** [or Dušan **Simic**]

8. In 1960, a cabinet in this city resigned after police beat to death a 22-year-old schoolgirl protesting that cabinet. White House Press Secretary James Hagerty was attacked in this city, torpedoing Eisenhower's planned visit here. Radhabinod Pal penned a blanket dissent in a trial at this city, and the construction of this city's International Airport led to five years of violence as leftists and farmers capitalized on the absence of eminent domain law. In 1969, this city enacted its country's strictest environmental laws in response to the Four Great Pollution Diseases. In the 1980s, a popular saying quipped that all the real estate in California was worth a "palace" in this city, which, in 1905, saw many riots in opposition to the Treaty of Portsmouth. A 1923 earthquake in this city did not destroy its Frank Lloyd Wright-designed Imperial Hotel. For 10 points, name this city that was struck by the Great Kanto Earthquake.

ANSWER: **Tokyo** Metropolis [or **Tokyo-to**]

9. A March 2014 paper by S.H. Kang et al. discusses this phenomenon coupling to elasticity in continuum structures. This phenomenon corresponds locally to a value of negative-one for a plaquette variable. One example of this phenomenon arises from the gauge invariance of the phase angle difference in the Hamiltonian expression for a Josephson junction array. That example of this phenomenon, which can alternatively be described in terms of the Villain interaction, causes spontaneous breaking of the continuous $U(1)$ ["U-1"] and discrete Z_2 ["Z sub 2"] symmetries in the FFX model. A mean field approximation of this phenomenon's long-range effects is central to Sherrington and Kirkpatrick's extension of the Ising model. This phenomenon can create quenched disorder in materials that exhibit antiferromagnetism, such as a spin glass. For 10 points, name this phenomenon in which a system's geometrical configuration makes minimizing all interaction energies impossible.

ANSWER: geometrical **frustration**

10. This artist incorporated camera blur to capture movement in images of the Hong Kong, Tokyo, Kuwait, New York, and Chicago stock exchanges. This artist captured the record for the most expensive photograph ever sold when a bidder paid \$4.3 million for his image depicting the boundaries between green grass, a path, a river, and the sky as nearly perfect lines. This man took a 1999 image, depicting people browsing fluorescently lit aisles, in which the title word appears on the walls upper next to the words "thanks," "only," and "nothing over"; a 2001 image of a similar scene is presented as a diptych and is the fourth-most-expensive photograph ever sold. For 10 points, name this contemporary German photographer whose photos of empty, anonymous spaces include *Rhein II*, *99 Cent*, and *99 Cent II Diptychon*, the latter two of which depict shoppers browsing brightly packaged food inside a discount supermarket.

ANSWER: Andreas **Gursky**

11. In the original version of one of this man's screenplays, a lieutenant named Beckwith sells a drug called "Jewels of Sound." This author voices a video game character that is a machine whose brain is divided into an id, ego, and superego, and whose circuitry is powered by the Totem of Entropy. That game was based on one of this author's stories, in which a woman kills a man by ramming an icicle down his throat after a group of characters travel to some ice caves. The aforementioned screenplay by this man features a woman named Edith Keeler, whose pacifist views prevents the U.S. from entering World War II. In one story by this author, writing on a pillar expresses how much a certain machine hates humanity. This author, who created the super-evil computer AM ["am"], wrote the screenplay to the *Star Trek* episode "The City on the Edge of Forever." For 10 points, name this science fiction writer who authored "I Have No Mouth, and I Must Scream."

ANSWER: Harlan [Jay] **Ellison**

12. A stripper who received money and gifts from this man, Priscilla Sue Galey, claimed that she never slept with him and that his interest in her was limited to attempting to convert her to Roman Catholicism. This man was code-named “Graysuit” in an investigation in which Michael Waguespack identified him based on Bob King recalling that this man was fond of a George Patton quote about the “purple-pissing Japanese.” The investigation into Felix Bloch eventually led to the capture of this man, whose voice recordings led to the exoneration of Brian Kelley, who was suspected of the crimes this man committed. Eric O’Neill was instrumental in bringing about the downfall of this man, who was arrested at Foxstone Park. This man used the pseudonym “Ramon Garcia” during his dealings with Victor Cherkashin, who also served as the handler for CIA agent Aldrich Ames. For 10 points, name this former FBI agent who was arrested in 2001 for passing secrets to Russia.

ANSWER: Robert [Philip] **Hanssen**

13. The drug bosentan treats a form of this condition that is associated with the overproduction of endothelin-1, and that can be alleviated by prostacyclins. This condition, which is the subject of the Birmingham paradox, may be partly alleviated by a cascade wherein HMWK and LMWK are cleaved by kallikrein. One class of drugs that treats this condition are dicarboxylates, which prevent the removal of two C-terminal residues from a hormone that is converted to an active form by an aspartyl protease secreted by the juxtaglomerular apparatus. This condition is also treated by drugs that prevent the binding of catecholamines to beta-adrenergic receptors. This condition can be controlled by modulating the renin-angiotensin-aldosterone system. The primary or essential version of this condition, which is treated by ACE inhibitors and beta blockers, accounts for most cases of it. For 10 points, name this condition in which a vital sign that is measured in systolic and diastolic forms is elevated.

ANSWER: **high blood pressure** [or essential **hypertension**; accept equivalents such as **elevated blood pressure**; accept “**pulmonary artery hypertension**” until “hemorrhagic”]

14. One of this man’s works, which was commissioned by local government officials attempting to find a site for a new post office, uses squares to represent a “center of gravity.” Another of this man’s works uses circles of varying sizes and colors to demonstrate the sources of his country’s capital’s beef. A third of this man’s works, which represents the English with the color green, contains dark green bands representing English immigration to Canada, the U.S., and Australia. This man depicted the progress onward from “Kowno” as a dwindling tan bar, and movement back toward Kowno as an increasingly large black bar, in an image that also uses a line plot to show the average temperature. That image by this man, which Edward Tufte called “the best statistical graphic ever made,” shows the geographical coordinates, the direction, and the army size during Napoleon’s invasion of Russia. For 10 points, name this French mapmaker.

ANSWER: Charles Joseph **Minard**

15. In one novel, the former proprietor of this location plays a flute while sitting next to the fire-breathing archivist Lindhorst and the author Longus, who is creating dragons through his writing. This location is where the protagonist of another novel is tried for the crime of murdering the reflection of a girl using the reflection of a knife. A section of this horseshoe-shaped building that illustrates “Cosmic Psychotherapy” contains a mirror that causes the protagonist’s self to be refracted into several chess pieces for an eternal game. In the first room of this location, the protagonist meets his school friend Gustav and hides in a treehouse after observing cars and other machines murdering men. In its last room, the protagonist is placed in the last act of *Don Giovanni* before Mozart reveals himself to be the jazz saxophonist Pablo. Its slogan is “for madmen only” and its price of admission is “your mind.” For 10 points, name this location visited by Harry Haller in *Steppenwolf*.

ANSWER: **Magic Theater** [or **Zaubertheater** prompt on “the building in *Steppenwolf*” or other such descriptive answers]

16. Sources of information on this battle include a letter written by Andreas del Palatio and a *minnelied* based on the account of Hans Mergest. According to legend, this battle's losing commander assumed the name Henrique Alemão and spent the rest of his life on the island of Madeira. This battle's winning commander set up his camp around a pair of Thracian burial mounds located at the foot of the Franga plateau between the villages of Kamenar and Vladislavovo. This battle began with Franco Talotsi and Michael Szilagyí successfully defending their flanks from attacks by the Akincis and Sipahis. Among this battle's casualties were Cardinal Giuliano Cesarini and a 20-year-old monarch who led a disastrous charge against the Janissaries. This battle broke the Peace of Szeged and ended a conflict that began with a bull from Pope Eugene IV. For 10 points, name this 1444 battle in which Murad II defeated an army led by Wladyslaw III and Janos Hunyadi, ending a namesake crusade.

ANSWER: Battle of **Varna** [accept **Varna Crusade**]

17. A method of analyzing these entities begins by finding maxima of the displacement field divergence in Lagrangian coordinates. The SDSS used an algorithm proposed by Hoyle and Vogeley to find these objects that begins by using a nearest neighbor algorithm on galaxies, which are represented by vertices. These structures correspond to primordial clouds with three negative eigenvalues of the deformation tensor. The small-scale residual velocity field for these structures has high coherence and low magnitude. The dark energy equation of state is constrained by the evolution of these structures' ellipticity. Robert Kirshner discovered a major example of these structures that is located in the constellation Boötes. Because the late-time integrated Sachs-Wolfe effect causes these structures to decrease the local CMB temperature, the WMAP cold spot may correspond to an exceptionally large one that is called Eridanus. For 10 points, name these regions of the universe that have very low matter density.

ANSWER: cosmic **voids** [accept **supervoids**]

18. In a letter to St. Denis, this thinker used the term *sykphaliosis* to describe his belief that those who receive a miracle have just consummated their relationship with God. In one of this thinker's works, he likened the image of God to the most vile of creatures, a worm. In that same work, he compared the secrets of God to the mystery of a secret object wrapped in light that is wrapped in darkness. Another of this thinker's works uses the example of Moses on Mount Sinai to argue that once one learns the divine secrets, one only knows silence and unknowing. Another of this man's works posits that the church is inhabited by eight types of people, the lowest of whom are the "demon-possessed." This Neo-Platonist wrote *On the Divine Names* and *The Celestial Hierarchy*, which states that the seraphim are the highest order of angels. For 10 points, name this religious thinker who put forth the angelic hierarchy, an Areopagite whose name suggests that he was the "pseudo" version of a Greek god.

ANSWER: Pseudo-**Dionysus** the Areopagite [or Pseudio-**Dionysius** the Areopagite]

19. One member of this quartet neutralizes the invincibility of an enemy by having that enemy's uncle interrupt an offering to a God of thunder. Another member of this quartet has a mother who is advised by her wet nurse to avail a boon she received for saving her husband's life. These figures are conceived after a long period of infertility is ended when their father follows the advice of Vasistha. One of these figures marries Urmila, and in a different story, draws a perimeter that is exploited by the demon Maricha. One of these figures is revived from unconsciousness by Sushena using the herb Sanjivani. Upon the death of their father, one of these figures becomes a ruler, but instead chooses to have a pair of sandals placed on the throne, and two of them are exiled from Ayodhya. For 10 points, name these mythological siblings, including Bharata, Lakshmana, and a figure who marries Sita in a namesake epic written by Valmiki.

ANSWER: **Rama and his brothers** [accept **Shatrughna, Lakhman, Rama, and Bharat** in any order, until "Bharata"; or "**sons of Dasharatha**"; or "**sons of Kaikeyi, Kausalya, and Sumitra**"; accept "**Ikshvaku siblings**" or equivalents; do not accept answers including "Sita"]

20. This story's narrator is reminded of the Nubian geographer's account of the *Mare Tenebrarum* when he sees the sky. Near the end of this story, one man makes three scientific observations, the third of which states that cylindrical objects are absorbed more slowly than other objects. Earlier in this story, that man compares the vehicle on which he is standing to a mass of "liquid ebony," the epigraph of which is a quote by Joseph Glanville comparing the profundity of nature to the well of Democritus. The narrator of this story repeatedly cites the testimony of Jonas Ramus and enumerates the islands of Suarven, Keildhelm, and Vurrgh. As it opens, the narrator listens to that man who claims that the title event made his hair turn from jet-black to white over the course of six hours. Its narrator, a fisherman, then recounts how he lost his brother to the title phenomenon, which he survived by riding in a cask. For 10 points, name this story by Edgar Allan Poe about an encounter with a Norwegian whirlpool.

ANSWER: "A **Descent into the Maelström**"

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Bonuses

- Economics blogger Noah Smith described this equation as “the Flux Capacitor that powers all modern DSGE macro models,” but it assumes that higher interest rates today imply lower consumption today, which is not quite borne out in the data. For 10 points each:

[10] Name this equation whose most general form relates the expected value of marginal utility of consumption in period t-plus-one to the marginal utility of consumption in period t and the interest rate.
ANSWER: intertemporal **Euler** equation [accept **Keynes-Ramsey** condition]

[10] The Euler equation usually contains a term describing this behavior, in which agents value current consumption more than future consumption. If you are an accountant, you would use the rate of this name to calculate the present value of a future stream of cash flows.
ANSWER: **discount** factor [accept word forms such as **discounting**]

[10] Experiments suggest that rather than discounting like an exponential function, humans discount the near-term more than they discount the long-term, which is known as this type of discounting. When represented graphically, it looks like the Cartesian curve for “y equals 1 over x.”
ANSWER: **hyperbolic** discounting [accept word forms]
- After the *Washington Star* reported this study’s existence in 1972, Congress created the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. For 10 points each:

[10] Name this study in which American doctors infected several hundred poor black sharecroppers from Macon County with syphilis at the namesake institute, before then knowingly failing to treat any of them.
ANSWER: **Tuskegee** syphilis experiment [accept any equivalent mentioning **Tuskegee**]

[10] In 2010, the U.S. government formally apologized to this country, whose President Juan José Arévalo allowed the Truman administration to operate similar syphilis experiments there during the 1940s.
ANSWER: [Republic of] **Guatemala** [or República de **Guatemala**]

[10] This doctor became the first globally known medical professional from the U.S. for discovering how to repair vesicovaginal fistula, a method he discovered through extensive gruesome experimentation on slave women.
ANSWER: [James] Marion **Sims**
- The Anglo-Saxon metrical charm that begins “settle down, victory-women” was used to keep these animals at bay. For 10 points each:

[10] Name these animals that were associated with Melaina, Kleodora, and Daphnis, who comprise the *Thriae*. Hannahanna sent one of these animals to find Telepinu.
ANSWER: **bees**

[10] The bow of this Hindu love god is made of sugarcane and bees.
ANSWER: **Kama**

[10] In the *Kalevala*, this figure picks up a pea plant and rolls it with her hands until a bee is born. The story of this woman’s magic squirrel and magic bear spittle is told to Louhi, who is inspired to brew beer upon hearing it.
ANSWER: **Osmotar**

4. The earliest models for these entities involved hierarchical or network structures, the latter of which was implemented in CODASYL. For 10 points each:
[10] Name these entities that perform atomic transactions and must be durable according to the ACID model. Relational implementations of them are SQL [**S Q L**] based, but “NoSQL” ones are all the craze these days.
ANSWER: **databases**
- [10] This distributed model for processing large datasets involves two steps that emit key-value pairs, and a “shuffle” step that sorts the output from the first step to the appropriate node for the second step. It is named for two higher-order functions from functional programming.
ANSWER: **map/reduce** [prompt on **MR**]
- [10] According to the CAP theorem, distributed systems must make a choice between this property, high availability, and partition tolerance. It is the “C” in the ACID model of databases.
ANSWER: **consistency** [accept word forms]
5. The first of these people included Dost Mohammed and Ehsan Khan, who helped out with the Burke-Willis expedition. For 10 points each:
[10] Name this group of Muslims who traveled to Australia to assist exploratory endeavors like the Madigan expedition. Despite what their name suggests, some of them came from what is now Pakistan.
ANSWER: Afghan **cameleers** [accept either; accept **Afghans** or **Ghans**]
- [10] The Burke-Willis expedition started from this city on the Yarra river with the intent of reaching the Gulf of Carpentaria. Port Phillip was an early attempt at settling around this modern-day capital of Victoria.
ANSWER: **Melbourne**
- [10] This man negotiated a treaty with the Aborigines to acquire the land surrounding Melbourne. He had earlier attempted to force out several Aborigines out of pockets of Tasmania during the Black Wars of the early 1830s.
ANSWER: John **Batman**
6. Examples of this genre include Guo Xi’s *Early Spring*, which shows the “angle of totality.” For 10 points each:
[10] Name this genre of painting with monumental and lyrical styles. Its other masters include Zhang Zeduan and, in the U.S., the members of the Hudson River School.
ANSWER: **landscape** painting [or **shanshui**]
- [10] “China’s *Mona Lisa*” is a domestic landscape showing scenes of daily life “along the river” during this annual spring festival, when tombs are traditionally swept.
ANSWER: **Qingming** Festival [or **Ching Ming**; prompt on “(Chinese) Memorial Day” or “Ancestors’ Day”]
- [10] This 6th-century CE Chinese painter wrote “The Record of the Classification of Old Painters,” which contained Six Principles of Chinese Painting that are still influential today.
ANSWER: **Xie** He [or **Hsieh** Ho]

7. In this novel, Reverend Ude drowns a little boy while baptizing him; another section briefly mentions how the fake holy water from the Pee Dee River causes typhus. For 10 points each:

[10] Name this postmodern novel by William Gaddis in which Paul and Elizabeth Booth rent a house in the title style from the geologist McCandless.

ANSWER: *Carpenter's Gothic*

[10] This posthumously released novel by William Gaddis is written in the style of Thomas Bernhard and is narrated by a bedridden man who gives a rambling monologue that compares the mechanization of the arts to the disintegration of his organic body.

ANSWER: *Agapē Agape*

[10] Gaddis's book *JR* beat out this other writer's novel *Humboldt's Gift* to win the *National Book Award*. This writer's other books include one about Holocaust survivor Mr. Sammler and *Henderson the Rain King*.

ANSWER: Saul **Bellow** [or Solomon **Bellows**]

8. Answer the following about synthetic biology, for 10 points each.

[10] Synthetic biologists often use zinc finger proteins, which have this activity that is also possessed by leucine zipper motifs. Electrophoretic mobility shift assays or footprinting assays are used to study this activity, which usually occurs along the major groove of the substrate.

ANSWER: protein-**DNA binding** [accept word forms; prompt on more generic things like "DNA interaction"]

[10] Synthetic biologists love to tinker with this bacterial genus, whose *genitalium* species was the second species to ever have its full genome sequenced. The *avium* and *intercellulare* species of this genus form a complex that usually only affects patients suffering from AIDS.

ANSWER: **Mycobacterium**

[10] One important synthetic biologist is this Harvard geneticist and director of the Personal Genomes Project. He demonstrated DNA's use as an information storage system by encoding his book *Regenesi* in DNA in 2013.

ANSWER: George [McDonald] **Church**

9. This religion's founder was sent to an insane asylum, where he then converted the head doctor. For 10 points each:

[10] Name this offshoot of Buddhism that is practiced mainly by farmers. It was founded by Huynh Phu So in 1939.

ANSWER: Dao **Hoa Hao** [or Phat Giao **Hoa Hao**; or **Hoahaoism** or word forms thereof]

[10] Hoa Hao is a Buddhist tradition in this country, which is also home to Cao Dai and the mother goddess religion Dao Mau.

ANSWER: [Socialist Republic of] **Vietnam** [or **SRV**; or Cong hoa Xa hoi chu nghia **Viet Nam**]

[10] Like Hoa Hao, this movement founded by Li Hongzhi is subject to Communist persecution. The Kilgour-Matas report concluded that the Chinese government forcibly detains this faith's practitioners and harvests their organs.

ANSWER: **Falun Gong** [or **Falun Dafa**]

10. This man suggested that captains of ships ferrying criminals to Australia be paid by the number of people who arrived alive, which resulted in a nearly 96% reduction in mortality of the passengers. For 10 points each:
[10] Name this public-health activist of the 1800s, who became the first director of the Board of Health after helping pass the Public Health Act of 1848. His work on the London sewer system was influential in warding off cholera.
ANSWER: Sir Edwin **Chadwick**
[10] In the 1820s, cholera made its way into Russia via this Caspian Sea port, from where it spread up the Volga into St. Petersburg. One of the Nazi goals of Operation Barbarossa was to establish a line of control from Archangelsk to this city.
ANSWER: **Astrakhan**
[10] The seventh major cholera pandemic, caused by the El Tor strain, began in this southeast Asian country, which has more recently seen avian flu scares on its islands of Sulawesi, Borneo, and Sumatra.
ANSWER: [Republic of] **Indonesia** [or Republik **Indonesia**]
11. Examples of literature in this art form include *Pisanus Fraxi* and *The Dream of Poliphilius*. For 10 points each:
[10] Name this genre of literature that also includes *The Plum in the Golden Vase*, which the Library of Congress defined as “Literature, Immoral.”
ANSWER: **pornography** [or **erotic** literature; accept word forms of either]
[10] Ihara Saikaku was a producer of this genre of pleasurable literature, which included many depictions of pornography; its stock characters included geishas, prostitutes, sumo wrestlers, and more geishas.
ANSWER: **floating world** [or **Ukiyo**]
[10] The 1,000,000-word, 11-volume, porn novel *My Secret Life* is attributed to an author of this name, whom many suspect of actually being Henry Spencer Ashbee.
ANSWER: **Walter**
12. Sometimes *lieder* become more famous than the song cycles they are part of. For 10 points each:
[10] Name the fifth song from *Winterreise*. It uses streams of triplets in the piano to evoke the wind, and its piano part often imitates horns while accompanying the voice.
ANSWER: “Der **Lindenbaum**” [or “The **Linden Tree**”]
[10] This composer wrote two song cycles based on Heinrich Heine’s poetry, though the songs “Mit Myrthen und Rosen” and “Ich grolle nicht” are individually much more famous than the cycles. He also wrote *Kinderszenen* and *Carnaval*.
ANSWER: Robert **Schumann**
[10] This later Austrian composer wrote 53 songs based on Eduard Mörike’s poetry, but “Fussreise” and “Der Feuerreiter” are by far the most famous.
ANSWER: Hugo **Wolf**
13. This mineral, which is harder and denser than its counterpart anatase, is named for its red appearance. For 10 points each:
[10] Name this mineral that is transparent to light in the visible light spectrum, and has a high index of refraction. Those properties make this mineral the go-to source for white pigments.
ANSWER: **rutile**
[10] Anatase and rutile have this symmetry, which means they have two axes of equal length and a third that is stretched. The two Bravais lattices with this symmetry are labeled tP and tI [“**T-P**” and “**T-I**”].
ANSWER: **tetragonal**
[10] Anatase and rutile are oxides of this element, which is extracted from rutile via the Kroll process.
ANSWER: **titanium** [accept **Ti**]

14. This museum's namesake "villa" is modeled after the Villa of the Papyri and houses a life-size bronze statue attributed to Lysippos called *Victorious Youth*. For 10 points each:
 [10] Name this museum whose permanent collection includes James Ensor's *Christ's Entry Into Brussels* and a marble sculpture found outside Hadrian's tomb in Tivoli, the *Lansdowne Heracles*.
 ANSWER: J. Paul **Getty** Museum [accept J. Paul **Getty Villa** or J. Paul **Getty Center**]
 [10] This museum, which is run by a large state college, has an extensive collection of Daumier paintings and drawings, and its prized possessions Gustave Moreau's *Salome Dancing Before Herod*, and John Singer Sargent's *Portrait of Dr. Samuel Pozzi*.
 ANSWER: **Hammer** Museum [accept Armand **Hammer Museum of Art** and Culture Center or **AHMACC**]
 [10] Both the Getty Museum and the Hammer museum are located in this city, whose Philharmonic Orchestra performs in the Walt Disney Concert Hall.
 ANSWER: **Los Angeles**, California [accept **LA**]
15. This work argues that the idea of "progress" in Enlightenment Europe combined with Romanticism and the growing discourse to obscure one civilization's influence on another. For 10 points each:
 [10] Name this three-volume work arguing that growing Enlightenment-era racism obscured Egyptian influence on Greece.
 ANSWER: **Black Athena: The Afroasiatic Roots of Classical Civilization**
 [10] Martin Bernal argued in *Black Athena* that scholars like Dietrich Tiedemann, J.F. Blumenbach, and K.A. Heumann contributed to a racialized Romanticist nationalist tradition centering at this university. Seven scholars from this university, including the Brothers Grimm, were expelled in an 1837 controversy.
 ANSWER: University of **Göttingen** [or Georg-August-Universität **Göttingen**; accept **Georgia Augusta**]
 [10] Bernal argued that the main Romanticist who influenced the Göttingen scholars was Johann Gottfried Herder, an exponent of this German literary movement named for a Friedrich Maximilian Klingler play.
 ANSWER: **Sturm und Drang** [or **Storm and Stress**; or **Storm and Urge**]
16. One of these poems that praises the Earl of Leicester describes "where pan and Bacchus their high feasts have made / beneath the broad beech and the chestnut shade." For 10 points each:
 [10] Name this genre of poetry that includes "To Penshurst" by Ben Jonson. This type of poetry usually celebrates the author's rich friend by immortalizing the namesake type of edifice.
 ANSWER: **country house** poem [do not accept or prompt on partial answers]
 [10] This English poet continued the country house poem tradition with his "Upon Appleton House." Another of his poems states "the grave's a fine and private place, but none, I think, do there embrace."
 ANSWER: Andrew **Marvell**
 [10] This other poet wrote the country house poem "At Penshurst." When not authoring popular lyrics like "Go, lovely rose," he plotted to seize Parliament for Charles I before the rise of Cromwell.
 ANSWER: Edmund **Waller**

17. In compositional theory, Johndan Johnson-Eilola and Stuart Selber use this word to mean a text built from existing texts to solve a communication problem in a new context. For 10 points each:
[10] Name this term that, in art, refers to agglomerations of found objects; in archaeology, it refers to groups of artifacts found in association with one another.
ANSWER: **assemblages**
[10] In philosophy and various types of “theory,” assemblages derive from *A Thousand Plateaus*, the second volume of *Capitalism and Schizophrenia*, by Felix Guattari and this Frenchman.
ANSWER: Gilles **Deleuze**
[10] Jasbir Puar connects “homonationalism in queer times” to the “assemblages” of this practice in a 2007 book. The “definition problem” of this practice is partly resolved using “sectoral conventions.”
ANSWER: **terrorism** [accept word forms; accept **Terrorist Assemblages**]
18. This Mongol tribe led the Zubu confederacy, and its last leader was Toghrul, who helped the Jin Dynasty defeat a Tatar rebellion. For 10 points each:
[10] Name this tribe that converted to Nestorianism in the 11th century. They were allies of the Khamag Mongols during the rise of Temujin, who broke them up after becoming Genghis Khan.
ANSWER: **Khereids** [or **Kerait** Mongols]
[10] This Khereid princess became Genghis Khan’s daughter-in-law when she married his youngest son Tolui. She was the mother of the khans Mongke, Kublai, and Hulagu.
ANSWER: **Sorghaghtani** Beki
[10] Khereid princess Doquz Khatun convinced her husband Hulagu Khan to spare the Christians living in this capital of the Abbasid Caliphate. Its 1258 sacking allegedly caused the Tigris to run black with ink.
ANSWER: **Baghdad**
19. The “zero-area” version of this device is a potential next-generation gravitational wave detector. For 10 points each:
[10] Name this device that splits light into two beams that travel around the same closed path in opposite directions.
ANSWER: **Sagnac interferometer** [prompt on “interferometer”]
[10] Michelson and Morley improved upon this experiment by using a Sagnac interferometer. This experiment, which measured the speed of light in flowing water, appeared to verify Fresnel’s partial ether drag hypothesis.
ANSWER: **Fizeau** experiment
[10] Fresnel was wrong about the ether, but he did derive the correct governing equation for this phenomenon in the case where aperture diameter squared over quantity “distance times wavelength” is greater than or equal to one.
ANSWER: **diffraction**
20. Name these Roman poets, for 10 points each.
[10] This man wrote numerous books of epigrams, one of which is addressed to the reader. The opening of the Coliseum is celebrated in his *Book of Spectacles*.
ANSWER: Marcus Valerius **Martialis**
[10] This court poet of Domitian wrote a collection of occasional verse whose topics include the parrot of Atedius Melior and a lament for his slave boy. He also wrote an unfinished epic poem about the growth of Achilles on Scyros.
ANSWER: Publius Papinius **Statiu**s
[10] This 4th-century Christian poet wrote *Liber Cathermerinon* and *Liber Peristephanon*, which contain numerous poems on the hours of the day and martyrs respectively. His *Psychomachia* inspired the model for morality plays.
ANSWER: Aurelius **Prudentius** Clemens