

Chicago Open 2018: The spice must flow

Edited by Auroi Gupta, Jacob Reed, Will Holub-Moorman, Jordan Brownstein, Seth Teitler, Eliza Grames, and Joey Goldman, with contributions by Stephen Eltinge, Matt Jackson, JinAh Kim, Raynor Kuang, Dennis Loo, Rohith Nagari, Sriram Pendyala, and Victor Prieto

Packet by xtra thicc description (Will Nediger, Rafael Krichevsky, Kurtis Droge, and Will Alston); and by Cornelia pointing to her children as her juuls (Jay Misuk, Rein Otsason, Derek So, and Joe Su)

Tossups

1. Individuals with mutations of a protein in this family may suffer from hypomyelination, hypodontia, and hypogonadotropic hypogonadism in a condition aptly named “4H syndrome.” The activity of these enzymes can be measured by incubating cells with BrUTP with sarkosyl in a run-on assay. Selectivity factor 1 is crucial to the recruitment of the fastest enzyme in this family, whose products have their “spacers” cleaved by C/D and H/ACA box molecules. 52 repeats of the heptapeptide YSPTSPS make up the (*) carboxy-terminal domain of the best-characterized enzyme in this family, in which the pattern of phosphorylation of the two serine residues determines if the enzyme is IIA [“two A”] or IIO [“two O”]. These enzymes act without physically moving in a process called “scrunching” that takes place during “abortive initiation.” After losing contact with the -10 and -35 elements in promoters of these proteins at the end of elongation, the sigma factors dissociate from these complexes. For 10 points, name this family of enzymes that initiates transcription.

ANSWER: **RNA polymerase** [accept more specific answers like **RNA pol IIA**; prompt on polymerase or Pol]
<Biology>

2. Historically, these people would eliminate their defilement by rubbing their bodies against a replica, which would then be thrown into a river. A girl as young as five was selected by divination and was prohibited from saying taboo words like “blood” or “meat” while cloistered in a building for two years to perform rituals on behalf of these people. An “accession ordination” ritual in which these people would take the tonsure is no longer part of the “great rite of feasting,” in which these people put on a “heavenly robe of feathers” and at midnight and again the following dawn offer (*) rice and wine from different regions. Unmarried daughters of these people, called *saiō*, serve as the chief priestesses at several shrines. When a six-year old person of this type drowned, he lost an item that was ceremonially entrusted to these people alongside a sacred jewel and mirror. For 10 points, name these spiritual heads of the Shinto religion, who are believed to be the direct descendants of Amaterasu.

ANSWER: **emperor of Japan** [or **tennō**; prompt on emperor; the lost item is the sword Kusanagi]
<Religion>

3. In a story by this author, a man tells his date about how staring in solitude at Delacroix’s *The Barque of Dante* at the Louvre made him realize that “A painting like that... just makes you shit.” This author repeated the word “Ha!” for five pages straight to represent a woman’s response to her husband’s serial infidelity, in a story in which she shoos away a teenager squatting in her attic shortly before gunning down a burglar in her bedroom. A doctor tells a guy that he has six weeks to live, then delivers the title punchline when asked for a second opinion, in one of the morbid jokes favored by the unmarried history professor (*) Zoë Hendricks in this author’s story “You’re Ugly, Too.” This author wrote of an infant, referred to simply as The Baby, who is diagnosed with cancer in her story “People Like That Are the Only People Here,” which appears in a collection set partly at a house in Key West where Audubon shot the title animals before painting them. For 10 points, name this author who collected her witty stories in volumes such as *Like Life* and *Birds of America*.

ANSWER: Lorrie **Moore** [or Marie Lorena **Moore**]
<Short Fiction>

4. This was the main instrument of arranger Anthony Gonsalves, whose student Pyarelal wrote a tribute to him for the film *Amar Akbar Anthony*. A “double” version of this instrument was built for fusion jazz musician L. Shankar. Baluswami Dikshitar pioneered a technique for playing this instrument with extensive glissandi. The use of this instrument is similar to that of the northern *sarangi*. In a raga alapana, this instrument usually repeats each phrase back to the vocalist as a kind of “shadow,” which is analogous to the role of the (*) harmonium in Hindustani music. Typically, either this melody instrument, a flute, or a *veena* is found alongside a *mridangam* and a *tambura*. In one tradition, this instrument is usually tuned in two fifths an octave apart, and its player sits cross-legged with this instrument’s scroll resting on their foot. Yehudi Menuhin collaborated with Carnatic players of—for 10 points—what European bowed string instrument?

ANSWER: violins [or fiddles]

<Auditory Arts>

5. The writings of Dio Chrysostom invented an epitaph for a king of this name that mentions a “maid of bronze.” Though probably built for his father, a site usually called the “tomb” or “tumulus” of a king of this name was excavated by the Penn Museum in 1957 at Yassihüyük [yas-SIH-hoo-YOOK]. The best-known king of this name in the historical record is identified with a king of the Mushki who sponsored revolts against Sargon II of Assyria. According to Strabo, a king of this name committed suicide by drinking bull’s blood after losing a battle to the (*) Cimmerians. The best-known king of this name is recorded as the first non-Greek to make an offering at Delphi, and was made king after fulfilling an oracle’s prophecy by arriving on his father’s wagon. In an Anatolian ruling dynasty, kings with this name alternated with kings named Gordias. For 10 points, give this name of a historical Phrygian king who features in Greek mythology.

ANSWER: Midas [or Mita or Mit-ta-a]

<European/Canadian/Australian History>

6. The “balance sheet” approach of Hyman Minsky rejects this assumption, arguing that liabilities and assets affect future commitments and receipts. Austrian school economists hold that this assumption is fallacious because it is contradicted by non-uniform outcomes called Cantillon effects. This assumption’s strong form is generally considered not to hold because of the process of reallocation underlying the Mundell–Tobin effect. If rational expectations hold, then the “*k*-percent rule” is optimal and *this* assumption holds true in the long-run, according to a 1972 paper titled for “Expectations and [*it*]” by Robert (*) Lucas. This assumption’s long-run validity was argued for by Milton Friedman’s “helicopter drop” story, in which each resident of an economically stable community receives 20,000 dollars, causing no long-term effect except a doubling of prices. For 10 points, name this assumption central to neoclassical monetary theory, which holds that fluctuations in the money supply only affect nominal variables, not real ones.

ANSWER: neutrality of money [accept neutrality after “dollars”; accept superneutrality of money; accept word forms such as neutral money or monetary neutrality; accept “Expectations and the Neutrality of Money” prompt on money or neutrality]

<Social Science>

7. A low power-setup can be used during this technique by either balancing the bridge or employing a superheterodyne detector. One form of this technique uses a device invented by T.J. Balle and W.H. Flygare, in which a sample is cooled to a few Kelvin by expanding gas jets inside a Fabry-Perot cavity. A backward wave oscillator phase-locked to a stable signal generator is typically used as a radiation source in the frequency-domain type of this technique. Heteronuclear diatomics have spectra with equally spaced lines with spacing equal to $h\bar{\nu}$ -squared over reduced mass times interatomic distance squared, and their energy levels probed in this technique scale as the quantum number (*) j times (j+1) in the absence of the next-order centrifugal distortion correction. If a molecule has a potential barrier of greater than 200 using this technique, it is typically treated as a rigid rotor. Selection rules forbid the observation of centrosymmetric linear molecules, such as dinitrogen or acetylene, using this technique. For 10 points, name this technique that studies the rotation of molecules at several gigahertz of frequency.

ANSWER: microwave spectroscopy [or rotational spectroscopy until “rotor” is read]

<Chemistry>

8. The “evangelical line” of this practice’s advocates has been frequently criticized by Hugh Willmott, who questions whether examples such as BS 7750 “take the priorities of capitalism for granted.” According to the DIRFT model for this practice developed by Philip Crosby, it involves measuring the “price of nonconformance.” “Circles” named for this practice are central to the approach of a book titled *What is Total [this practice]: The Japanese Way*. This practice is the source of (*) Shewhart and Deming’s distinction between common-cause and special-cause variation in statistics. Kaoru Ishikawa’s “fishbone chart” is one of the “Seven Basic Tools of” this practice, while the PDCA cycle is a model for improving this practice. “Go/no-go” gauges are used in certain forms of this practice, many of which follow the ISO 9000 system of standards. The Six Sigma approach to this practice is named for the goal of six standard deviations of a product being defect-free. For 10 points, name this practice concerned with ensuring that goods and services meet expectations or requirements.

ANSWER: quality management [or quality control, or quality assurance; or QC; or QA]

<Other Academic>

9. The protagonists of A.S. Byatt’s *Morpho Eugenia* read a sonnet by this poet that calls ants the “deformed remnants of the fairy-days.” The speaker of a poem by this author witnesses “Hill-tops like hot iron glitter bright in the sun / And the rivers we’re eying burn to gold as they run.” This author wrote fondly of wanting to see his childhood sweetheart Mary Joyce, unaware that she had burned to death in a freak accident years ago, in his *Journey Out of Essex*, a diary he kept during the eighty-mile (*) walk home he took over four days from an asylum in High Beach. This “Northamptonshire Peasant Poet” wrote of wanting to sleep as he “in childhood sweetly slept, / Untroubling and untroubled” in his best-known poem, which laments: “My friends forsake me like a memory lost: / I am the self-consumer of my woes.” For 10 points, name this Romantic poet who wrote poems such as “I am!” while spending the last twenty-three years of his life institutionalized for mental illness.

ANSWER: John Clare

<Poetry>

10. An anonymous writer named for one of these animals is the credited author of a book that prophecies the restoration of the world's first tree and the bringing of a new religion by men of the "seven deserted houses." A building named for these animals in Lamanai contains a 13-foot tall stone mask of a king. The full name of a ruler whose name is abbreviated "Eight Deer" includes this animal's name. These mammals name a group whose best members could be promoted to the "Shorn Ones." Strange stone statues with cleft heads, such as many found by Matthew Stirling, represent an art (*) motif referred to as a "were-[this animal]." A legendary priestly author of several books with prophecies related to the *kat'un* cycle of the Yucatec Maya was named Chilam Balam in reference to these animals. Warriors who had captured four enemies could join a military order named for these animals in one empire. For 10 points, the Aztec military had elite troops named for eagles and what totem animal of the god Tezcatlipoca?

ANSWER: **jaguars** [accept **jaguar** priest or were-**jaguar** or Eight Deer **Jaguar** Claw; accept **balam** before "balam"; prompt on cats or felines or less specific answers]

<World History>

11. In the second scene of this opera's first act, two girls sing a duet accompanied by two flutes and a piano, which stands in for a harpsichord. This opera's second act includes a 4-4 pastoral "sarabande," followed by a scene set in the mezzo-soprano lead's bedroom. This opera's overture begins with the clarinets and bassoons playing a 12-8 theme almost identical to the main theme of the first movement of its composer's fifth symphony, which was written the year before. This opera's soprano lead sings her most famous aria while waiting by a (*) canal in Act 3. Near the end of Act 2, its mezzo-soprano lead quietly sings an aria from Grétry's *Richard Cœur de Lion*, "Je crains de lui parler la nuit" [ZHUH craan de LWEE par-LAY lah NWEE]. In its second act, the aria "ya vas lublyu" is sung by Yeletsy to Liza during a masked ball. At the end of this opera, Herman sees the ghost of the Countess and kills himself after declaring "what is life? A game!" For 10 points, name this Tchaikovsky opera based on a story by Pushkin.

ANSWER: *The **Queen of Spades*** [or ***Pique-Dame***; or ***Pikovaya dama***; or ***La Dame de Pique***]

<Other Arts>

12. It's not the study of streamflow or water quality, but scientists working in this field often solve generalized linear models using a software package named Egret. Luís Bettencourt et al.'s paper "The Power of a Good Idea" applied statistical techniques from this field to study the physics community's adoption of Feynman diagrams in three countries. Difficulty in accounting for time-dependent confounding variables in this field led James Robins, Miguel Hernán, and Babette Brumback to develop marginal structural models, which use estimators weighted by the inverse probability of treatment. In this field, the spectral radius of the next generation matrix can be used to compute the basic reproduction (*) number, which gives the average number of secondary cases that result from an individual case. In this field, "compartmental" models are used to simplify calculations of how quickly a vector or agent moves through a population. For 10 points, name this field that studies the spread of diseases in populations.

ANSWER: **epidemiology** [accept word forms such as **epidemiological** studies; prompt on medical biostatistics]

<Other Science>

13. In this book, two elderly workers at a medical laboratory fight each other with a knife and ice pick, breaking several animals out of their cages. This book ends with its narrator resolving to “build a bridge of words” between himself and a “world which was so distant and elusive that it seemed unreal.” To his mother’s disapproval, the protagonist of this book reads Proust by night after spending his days binge eating to meet the weight requirement for applying to be a postal worker. The protagonist of this book is thrown out of a (*) May Day parade and is labeled a Trotskyite for walking out of the show trial for Ross, one of several black Communists whom he had interviewed for the source material to his story “Big Boy Leaves Home.” The second part of this memoir, which was long excluded from most editions until it was finally published in 1977 as *American Hunger*, details its author’s life in Chicago after moving from Mississippi. For 10 points, name this novelistic autobiography by Richard Wright.

ANSWER: ***Black Boy*** [accept ***American Hunger*** until it is read]

<Long Fiction>

14. These locations name the fourth of six phases of “historical unresolved grief” in the original discussion of historical trauma. Charles Eastman’s wife, the poet Elaine Goodale, served as the first “field supervisor” of these institutions, many of which contracted with family farms in the countryside via the “outing system.” The number of these institutions fell drastically after the Johnson-O’Malley Act pushed a transition to public services. The Kennedy Report and the (*) Meriam Report documented malnutrition, abuse, and unsanitary conditions at these locations. Ward Churchill’s book on the “genocidal impact” of these institutions takes its title from a remark of Richard Henry Pratt, who aimed for the one he founded in Carlisle, Pennsylvania to “save the man.” For 10 points, identify these institutions whose assimilationist policies included forcing their young residents to cut their hair and take Euro-American names.

ANSWER: American **Indian** boarding **schools** [accept obvious equivalents of residential **schools** for **Native Americans**; prompt on partial answers]

<American History>

15. In 1938, this physicist first described the inverse relationship between the mass of a force-carrying particle and the range of the interaction as a direct consequence of Heisenberg’s uncertainty principle. He was a member of the Testa Grigia group which made the first measurement of the muon lifetime. This man introduced a combinatorial theorem equivalent to Isserlis’s theorem in probability theory; that result allows one to reduce time-ordered N-point correlation functions of quantum fields into sums of expectation values of pairwise contractions. In a paper investigating the “Properties of Bethe–Salpeter Wave Functions,” this student of Enrico Fermi introduced a trick that has since become standard: the Euclideanization of (*) path integrals via analytic continuation of wave functions to purely imaginary values of time. For 10 points, identify this Italian physicist who introduced field theoretic techniques known as his namesake “pairing” and namesake “rotation.”

ANSWER: Gian Carlo **Wick** [accept **Wick** rotation or **Wick** pairing]

<Physics>

16. **W. K. Pritchett characterized certain critics of this text, such as O. Kimball Armayor and Detlev Fehling, as members of a “Liar’s School.” This text originated the description of a species of winged serpents who engage in sexual cannibalism and whose young eat their way out of the mother. Pritchett uses the example of hippomaney to rationalize a story from Book III of this text about a servant who uses the scent of a mare to get a horse to neigh and secure the throne for his master. This text begins by describing the rape of Io by (*) Phoenician traders, which prompted the retaliatory rapes of Medea and Europa. The sexual fetish of “candaulism” gets its name from a story told in this text’s first book, in which the king Candaules exposes the naked body of his wife to his bodyguard Gyges. This is the earliest known text to report the story of dolphins rescuing the musician Arion after he is kidnapped by pirates. Croesus learns from the Oracle of Delphi that a mighty empire will fall if he attacks the Persians in the first book of, for 10 points, what dubiously factual chronicle by Herodotus?**

ANSWER: Herodotus’s Histories [or Historiai; accept just Herodotus before mentioned]

<Mythology/Geography/Current Events>

17. **This woman received the dismissive reply “the one who has made the most children” when she asked a future enemy whom he thought was the greatest woman in history. After rounds of negotiations that gave the Caribbean island of Saint Barthélemy to Gustavus III, this woman was married off to a Swedish baron named Erik. At least one of this woman’s own children is thought to be by a man who divorced his wife Wilhelmina von Cramm before meeting her, the philosopher Benjamin Constant. A ruler ordered five thousand copies and the type blocks of this woman’s (*) treatise *On Germany* to be destroyed for violating French morals. When visiting this woman in Paris, John Quincy Adams also met with Henry Clay and the Marquis de Lafayette at her salon. This daughter of Jacques Necker courted controversy by openly discussing restrictions on women in her novel *Delphine*. For 10 points, name this Swiss-born lady of letters and opponent of Napoleon.**

ANSWER: Germaine de Staël [or Anne Louise Germaine de Staël-Holstein; or Madame de Staël; or Anne Louise Germaine Necker; prompt on Necker]

<European/Canadian/Australian History>

18. **An author with this first name remarked that Pieter Bruegel, whom he called “Pier den Droll,” “swallowed” the “mountains and rocks” of the Alps, which he then “spat out again onto canvas,” in his biography of the artist. A painter with this first name co-founded the Mannerist “Haarlem Academy” and taught Frans Hals. That painter with this first name included biographies of Northern painters from Van Eyck through the late 16th century in *Het Schilder-boeck*, earning his nickname of the “Dutch (*) Vasari.” A student of Rembrandt with this first name was killed in a 1654 gunpowder explosion that destroyed almost of all of his paintings. That painter with this first name worked alongside Nicolaes Maes [maas] as one of the predecessors of Pieter de Hooch and Johannes Vermeer in the School of Delft. That man with this first name is best-known for a sunny painting in which a box sits on a wall, behind two hoops to which the title bird is chained. For 10 points, give this first name of the man who painted *The Goldfinch*.**

ANSWER: Carel [or Karel; accept Karel van Mander or Carel Fabritius]

<Painting and Sculpture>

19. In a contemporary novel in this genre, a translator of T. S. Eliot applies his training as a critic of Classical Chinese poetry to his job by examining the “semiotics” of several red mandarin dresses. The Dutch Sinologist Robert van Gulik removed a pornographic section about Wu Zetian from his English translation of an anonymous Qing dynasty novel in this genre featuring Di Renjie. It’s not *wuxia*, but during the Song dynasty, several *gong’an* stories in this genre were written about government ministers such as Bao Zheng. A (*) *zaju* verse drama in this genre by the Yuan dynasty author Li Qianfu inspired Brecht’s *Caucasian Chalk Circle*. *The House Without a Key* was the first of six novels in this genre that Earl Derr Biggers based on the real-life Honolulu native Chang Apana, which are still horribly racist despite being intended as a positive counterweight to Yellow Peril-inspired Fu Manchu stories. For 10 points, name this genre of the Charlie Chan novels.

ANSWER: **detective** fiction [or ***gong’an*** before mention, or **mystery** or **crime** fiction]

<Miscellaneous Lit>

20. The French view that this philosopher only looked backwards was countered in a 1996 book that introduced a concept of the “capacity to receive...and...to produce form,” which is demonstrated by the human ability to use language to “translate the logical process into a sensuous form.” That “plasticity” reading of this philosopher’s *Future* is by Catherine Malabou. Anglophone misreadings of this philosopher were attacked in Shlomo Avineri’s 1972 book on this man’s *Theory of the Modern State*. This philosopher claimed that, while a man ought to “produce himself,” he cannot be other than what he “implicitly is,” which is termed his (*) *Anlage* [AHN-lah-guh]. This thinker called philosophical work a “Penelope’s web” in a book that consists of numbered sections with “Remarks” and “Additions.” In one of those additions, this man called the state “is no ideal work of art,” because it suffers “caprice, chance, and error.” He claimed that, like “a criminal,” the state is “always a living man” in a section calling it “the march of God in the world.” For 10 points, name this author of *Elements of the Philosophy of Right*.

ANSWER: Georg Friedrich Wilhelm **Hegel** [accept *The Future of Hegel* or *Hegel’s Theory of the Modern State*]
<Philosophy>

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Bonuses

1. For 10 points each—answer the following about E.J. Corey’s method of retrosynthetic analysis:

[10] In retrosynthesis, an open arrow made up of two straight lines and a single head indicates *this* step of breaking a compound up into two smaller fragments.

ANSWER: **transform** [or **disconnection**]

[10] Disconnections that would create these kinds of structures with seven or more members are discouraged in retrosynthetic planning. Bicyclic compounds like naphthalene contain two fused ones.

ANSWER: **rings**

[10] This is the term for the minimal required portion of a molecule that can enable a retrosynthetic transform. It should not be confused with the “synthon,” or idealized molecular fragment.

ANSWER: **retron** [or **keying element**]

<Chemistry>

2. The foundations for this field of study were laid out in a 1928 monograph that identifies “interdiction” and “branding” as two of 31 “elements,” which are grouped into spheres like “introduction” or “the donor sequence.”

For 10 points each:

[10] Vladimir Propp’s *The Morphology of the Folktale* established what field that studies the structures of stories?

ANSWER: **narratology**

[10] The Bulgarian literary critic Tzvetan Todorov coined the term “narratology” in a study identifying “punishment avoided” and “conversion” as the two main storylines of *this* collection, citing as an example of the former Dioneo’s first day tale about a monk getting caught with a woman in his room by an elder abbot.

ANSWER: ***Decameron***

[10] This French narratologist coined the term “paratext” for the cover art, prefaces, and other material surrounding books, and suggested parsing the syntax of complex narratives such as *In Search of Lost Time* by identifying the “focalization” of narrative mood, in his multi-volume work *Figures I-III*.

ANSWER: Gérard **Genette**

<Miscellaneous Lit>

3. This author's first book used the concept of "local biologies" to compare the Western experience of menopause to the Japanese experience of *kōnenki*. For 10 points each:

[10] Name this Canadian academic and author of *Encounters with Aging*. She discussed the "reinvention of death" in the book *Twice Dead* and co-authored the paper "The Mindful Body" with Nancy Scheper-Hughes.

ANSWER: Margaret **Lock**

[10] Along with Scheper-Hughes and Arthur Kleinman, Lock is one of the leading practitioners of the "medical" subfield of this social science.

ANSWER: medical **anthropology**

[10] Lock's *Twice Dead* focuses on Japanese views about *this* practice, the underground form of which has been the subject of several articles by Scheper-Hughes. Michael Sandel argued against introducing marketplaces to this practice in his book *What Money Can't Buy*.

ANSWER: human **organ donation** [accept any answer that mentions the **transfer** of human **organs**, such as **organ trafficking**, **organ sale**, taking **organs** from a dead **body**, etc.]

<Social Science>

4. Conformally flat spacetimes belong to Type O of this classification. For 10 points each:

[10] Name this system of classification for spacetimes based on the number of principal null components at each point.

ANSWER: **Petrov** classification

[10] The Petrov classification system specifically describes the symmetries of this man's namesake tensor, which vanishes for conformally flat spacetimes and is defined as the traceless part of the Riemann tensor. This man's *Raum, Zeit, Materie* was one of the earliest mathematical expositions of general relativity.

ANSWER: Hermann Klaus Hugo **Weyl**

[10] The Petrov classification distinguishes different varieties of these disturbances. Type N spacetime corresponds to these disturbances with transverse polarization, which is the type detected by LIGO.

ANSWER: **gravitational waves** [or **gravitational radiation**; grudgingly accept **gravity waves**; prompt on partial answer]

<Physics>

5. The first three letters of this word are visible at the bottom of Picasso's *Guitar, Sheet Music and Wine Glass*. For 10 points each:

[10] Give this French word, or its first few letters, that's often depicted cut off in Cubist art. Its first few letters appear in a namesake Braque still life, Picasso's *Still Life with Chair Caning*, and in Miró's *The Tilled Field*.

ANSWER: *Le* **Journal** [accept **J-O-U** or **J-O-U-R**]

[10] A copy of *Le Journal* appears in this Cubist's *Still Life with Checkered Tablecloth*, which punningly turns wine into water by showing only the letters "E-A-U" on a bottle of Beaujolais. He made a 1912 portrait of Picasso.

ANSWER: Juan **Gris** [or José Victoriano Carmelo Carlos **González-Pérez**]

[10] Gris's portrait of Picasso was painted at the very end of his involvement in *this* first phase of cubism, whose name he coined.

ANSWER: **Analytic** Cubism [or cubisme **analytique**]

<Visual Arts>

6. This house is notable for the twelve mythological scenes painted across five of its rooms. For 10 points each:
[10] Name this *domus* whose frescoes were largely preserved by the 79 CE eruption of Vesuvius. It is named after the two freedmen who likely owned it, as suggested by some inscribed signet rings found in one of its bedrooms.

ANSWER: House of the **Vettii**

[10] Unusual for a Roman *domus*, the House of the Vettii is missing this specific kind of room, which in most Roman *domus* or villas served as the office or study of the paterfamilias and was situated between the atrium and the peristyle. These rooms were named after the board or slate upon which transactions would be recorded.

ANSWER: **tablina** [or **tablinum**]

[10] The use of the word *domicilium* to indicate a regular place of abode first appears in the Lex Plautia Papiria, which was passed during this war to grant citizenship to the formerly-Rome-allied cities who rebelled during it.

ANSWER: **Social** War [or War of the **Allies**; or **Marsic** War]

<European History>

7. After being tricked into drinking a sleep potion instead of poison, a woman from this city wakes up inside a tomb and decides to starve to death, but is freed by robbers who plunder the tomb's silver and gold. For 10 points each:

[10] Identity this home city of Anthia and Habrocomes, who remain devoted to each other despite being separated and captured numerous times in a 2nd century AD Greek novel by a writer from here named Xenophon.

ANSWER: **Ephesus**

[10] *The Ephesian Tale* inspired an extremely similar Latin romance about a man from this city named Apollonius, which John Gower summarizes as an example of incest in his *Confessio Amantis*. Gower himself narrates a play in which a character from this city wins a tournament wearing rusty armor that had just washed up on shore.

ANSWER: **Tyre** (the romance and the play are, respectively, *Apollonius of Tyre* and *Pericles, Prince of Tyre*)

[10] A widow from Ephesus sleeps with a soldier who finds her faithfully standing guard over her husband's corpse, in a story told in this other ancient novel best-known for its description of the Feast of Trimalchio.

ANSWER: **Satyricon** [by Petronius]

<Long Fiction>

8. This book claims that it's a non-contingent fact that there are no unicorns, but doesn't elaborate on that claim until the addenda. For 10 points each:

[10] Name this book, which consists of transcripts of three lectures Saul Kripke delivered at Princeton in 1970.

ANSWER: ***Naming and Necessity***

[10] *Naming and Necessity* imagines a situation in which the person who discovered *this* result actually stole it from a man named Schmidt. This result scuttled Hilbert's program.

ANSWER: **Gödel's incompleteness** theorem [or **second incompleteness** theorem; prompt on partial answer]

[10] The third lecture of *Naming and Necessity* disputes the claim from this philosopher's *Logic for Mathematicians* that "x = y if and only if 'x' and 'y' are names for the same object." This philosopher's namesake "trick" enables one to prove Gödel's incompleteness theorem without assuming omega-consistency.

ANSWER: John Barkley **Rosser**

<Philosophy>

9. “Biff” Ellison and Owney Madden got their start as part of the Gopher Gang that ran this neighborhood. For 10 points each:

[10] Name this neighborhood heavily settled by Irish whose name may derive from a Davy Crockett quote about the character of nearby Five Points. It was later the site of the “Capeman” murders.

ANSWER: **Hell’s Kitchen** [or **Clinton**]

[10] Residents of Hell’s Kitchen were crucial voters in Irish political control of New York City, which was in large part maintained by this political machine led at one point by “Boss” Tweed.

ANSWER: **Tammany Hall**

[10] This Tammany Hall politician and master of electoral fraud, who sported such nicknames as “Dry Dollar” and “Big Feller,” nonetheless was a popular figure whose funeral drew over 25,000 attendees. He names one of the earliest acts of gun control in the US, a 1911 law requiring licenses for firearms small enough to conceal.

ANSWER: Timothy Daniel **Sullivan** [accept **Sullivan Act**]

<American History>

10. The sculpture *She Lies*, a glass-and-steel interpretation of Caspar David Friedrich’s *Sea of Ice*, floats in the water next to this building. For 10 points each:

[10] Name this building designed by the architecture firm Snøhetta [snuh-HET-tah]. This building’s white angled roofs allow tourists to walk up them while looking inside through its glass exterior.

ANSWER: **Oslo Opera House** [or Oslo **Operahuset**]

[10] Norway is also home to most of the surviving examples of *these* medieval churches, which are named for the pine trunks used as their posts. The Urnes one of these buildings overlooks a fjord.

ANSWER: **stave** churches [accept **palisade** churches]

[10] Following a 1904 fire, the Norwegian city of Ålesund was rebuilt in the *Jugendstil*, a branch of this *fin-de-siècle* style of architecture and the decorative arts, which emphasized curving lines and plant-based patterns. Hector Guimard’s Paris Métro station designs were done in this general style.

ANSWER: **Art Nouveau**

<Other Arts>

11. James Paul Gee notes how these things provide information “on demand” and “just in time” in a book titled for what they have to “teach us about learning and literacy.” For 10 points each:

[10] Name these things. Gee argues that some of these things, like *System Shock* and *Rise of Nations*, operate on educational principles of scaffolding in order to develop a “cycle of expertise.”

ANSWER: **video games** [accept **computer games**; accept ***What Video Games Have to Teach Us About Learning and Literacy***; prompt on **games**]

[10] In the book *Reality is Broken*, this author posited that alternative reality games have the potential to solve social problems such as obesity and depression. She probably wasn’t after NAQT’s heart when she published her video game *I Love Bees*.

ANSWER: Jane **McGonigal**

[10] The anthropologist Tom Boellstorff wrote a 2008 ethnography titled for “coming of age” in this online game, part of which analyzes how players value this game’s “Linden dollars.”

ANSWER: **Second Life** [or *Coming of Age in **Second Life***]

<Other Academic>

12. Russian Orthodox Christians weave pussy willow branches into crosses in preparation for this day. For 10 points each:

[10] Identify this moveable feast day, historically celebrated in Russia by the Patriarch of Moscow riding on a horse with its rein held by the Tsar, in reenactment of Christ's entry into Jerusalem.

ANSWER: **Palm Sunday**

[10] Boys would follow the tsar and patriarch shouting this word, with which the crowds in Jerusalem honor "the son of David" in Matthew, Mark, and John. In the Mass, a sentence beginning with this word is said both before and after the *Benedictus*.

ANSWER: **Hosanna** [or **Osanna**]

[10] Eastern Orthodox Christians plait willow or palm crosses on the day before Palm Sunday, which is named for this man. In Greece and Cyprus, likenesses of him are made from sweet bread and eaten on that Saturday.

ANSWER: **Lazarus** of Bethany [or Saint **Lazarus**; or **Lazarus** of the Four Days]

<Religion>

13. Back when it had more water, this lake supported thriving cities such as Loulan ("low-lahn"), which became the seat of the Shanshan client kingdom after envoy Fu Jiezi ("foo jyeh-zuh") stabbed its king to death. For 10 points each:

[10] Name this dried-up salt lake in China. The nuclear test site established near here in 1959 was the location of China's first nuclear tests.

ANSWER: **Lop Nur**

[10] A local hunter led archaeologist Folk Bergman to this tomb complex near Lop Nur, where they found many mummies with paternal DNA markers of mostly West Eurasian ancestry, suggesting Indo-European origins. Further evidence is provided by European-looking masks which are over 3,000 years old.

ANSWER: **Xiaohe** ("shyow-huh") Cemetery [or **Ördek's Necropolis**]

[10] The mummies found at Xiaohe were probably incorrectly identified with the *Tocharoi* who lived in this region of Central Asia. It was ruled by many Greek kings such as Euthydemus I, as well as the satrap who killed Darius III, Bessus.

ANSWER: **Bactria**

<World History>

14. You are first looking into Chapman's Homer. Answer the following about it, for 10 points each.

[10] You feel like "some watcher of the skies / When a new planet swims into his ken," or like "stout Cortez, when with eagle eyes / He star'd at" this body of water.

ANSWER: the **Pacific** Ocean

[10] You discover that Chapman's translation of the *Iliad* uses lines with this many syllables. Lines with this many syllables alternate with alexandrines in the poulter's measure, a meter that waned in popularity after the 16th century.

ANSWER: **fourteen** (Chapman's translation is in iambic heptameter.)

[10] You thank your lucky stars that a real English translation of Homer now exists, superseding the only previous attempt, in which this politician cobbled together a version of the first ten books of the *Iliad* based on French and Latin renderings.

ANSWER: Arthur **Hall**

<Poetry>

15. Kantrow et al. countered the idea that this parameter can be used to distinguish sarcoidosis from other types of interstitial lung disease, by showing that it varies between 0.5 and 37.3 in the bronchoalveolar lavage. For 10 points each:

[10] Name this ratio that is typically 2:1 in peripheral blood. Its normal decline in healthy adults is a marker of immunosenescence.

ANSWER: ratio between **CD4+** and **CD8+** T-cells [both parts needed, and in that specific order, so do **not** accept “the CD8 to CD4 ratio”]

[10] A CD4/CD8 ratio of less than 1 is predictive of this viral disease, which can be treated with entry, integrase, or reverse transcriptase inhibitors.

ANSWER: HIV-**AIDS** [or Human immunodeficiency virus infection and **acquired immune deficiency syndrome**; do not accept “HIV” or “human immunodeficiency virus” alone]

[10] The CD4/CD8 ratio is weakly predictive of disease outcome in cancer patients, for whom it might be better to consider the ratio of effector T cells to this other T cell population that downregulates the activity of other T cells. These cells are CD4, FoxP3, and CD25 positive.

ANSWER: **regulatory** T cells [or **Tregs**; or **suppressor** T cells]

<Biology>

16. Cellist Sheku Kanneh-Mason performed Pablo Casals’s arrangement of this song alongside the Schubert “Ave Maria” at the 2018 Royal Wedding. For 10 points each:

[10] Name this early song from Fauré’s Opus 7, which recounts a “slumber which held your image spellbound” and ends with the singer asking the “mysterious night” to return.

ANSWER: “**Après un rêve**” [or “**After a Dream**”]

[10] Later in life, Fauré based his first two song cycles, including five songs “of Venice,” on the poetry of *this* man. A poem by this man inspired the uses of the word “Bergamasque” by Fauré and Debussy.

ANSWER: Paul(-Marie) **Verlaine**

[10] This is the Verlaine poem that invokes “Masques et Bergamasques,” thus inspiring the namesake third movement of Debussy’s *Suite bergamasque*. Fauré included a song based on this poem in his Opus 46.

ANSWER: “**Clair de Lune**”

<Auditory Arts>

17. In this city, one can take the El Peral lift, one of its sixteen operational funiculars, to the top of its Cerro Alegre. For 10 points each:

[10] Name this coastal city whose Plaza Sotomayor is appropriately lined with monuments honoring sailors who died in the battles of Iquique [ee-KEY-kay] and Punta Gruesa, as it is the base of its country’s navy. Its economy collapsed after the opening of the Panama Canal.

ANSWER: **Valparaíso**, Chile

[10] Valparaíso is the closest major city to this area in Chile, which lends its name to the house where Pablo Neruda lived for the final few decades of his life.

ANSWER: **Isla Negra** [or Casa de **Isla Negra**]

[10] Sailors used to call Valparaíso the “Little” version of this other port city in the Americas. This city’s now-defunct “Little Chile” neighborhood was settled during the 1849 gold rush; many later immigrants came through Angel Island.

ANSWER: **San Francisco** [or **SF**]

<Mythology/Geography/Current Events>

18. The ADMX experiment searches for these hypothetical light scalar particles, which Frank Wilczek named for a brand of dishwashing liquid. For 10 points each:

[10] Identify these dark matter candidates that give all nucleons an oscillating electric dipole moment with frequency proportional to their namesake decay constant. Cosmological populations of these particles may be produced via the misalignment mechanism.

ANSWER: **axions**

[10] Peccei–Quinn [peh-CHEH-ee-KWIN] theory adds a new gauge group of this type to the Standard Model in order to promote the CP-violating parameter to a dynamical field. The axion represents the Goldstone boson of this broken symmetry. It is also the gauge group of QED.

ANSWER: **U(1)** [“U one”] or the **unitary group** of degree **1**

[10] Axions are possible drivers of inflation in string inflationary models because many axion-like scalars appear in generic examples of these metastable local minima of the string landscape.

ANSWER: **false vacua** [or **false vacuum** states; prompt on (metastable) **vacuum** or **vacua**]

<Other Science>

19. This author described the court of the exilarch in Baghdad and was one of the first Europeans to refer to the Druze and the Wallachians by those names. For 10 points each:

[10] Name this Spanish-born rabbi who detailed the Jewish communities he found in the over 300 cities he visited on a 13-year-journey in a book titled for his “deeds.”

ANSWER: **Benjamin** of Tudela

[10] According to Benjamin’s account, the Jewish communities in Greek cities such as Corinth and Thebes focused on this industry, which was brought to the Byzantine empire by the smuggling efforts of two Nestorian monks.

ANSWER: **silk**-weaving

[10] Some years after his death, the main street of Tudela’s one of these neighborhoods was named in Benjamin’s honor. This term of Arabic origin was used in medieval Spanish and Portuguese documents to denote self-governing communities of Jews and Moors within Iberia.

ANSWER: **aljama** [ahl-HAH-mah (Spanish) or al-ZHAH-mah (Portuguese)]

<European History>

20. In this play, Yankl throws a Torah scroll out of his house in disgust at his daughter Rivkele running away with one of the prostitutes from the brothel he runs downstairs. For 10 points each:

[10] Name this originally Yiddish-language play by Sholem Asch, whose Broadway run in 1923 was unsurprisingly cut short with its entire cast being arrested for obscenity. Paula Vogel’s 2015 play *Indecent* dramatizes the controversy surrounding this production.

ANSWER: **God of Vengeance**

[10] Before moving to Broadway, *God of Vengeance* opened at the more accepting “playhouse” run by this collective whose influential members included Susan Glaspell and Eugene O’Neill.

ANSWER: **Provincetown** Players

[10] This Provincetown Player wrote of the latent desire of two spinster sisters for a girl living in their apartment in her play *The Dove*, but is best known for writing a modernist novel in which Nora Flood moves to Paris to be with her girlfriend Robin Vote.

ANSWER: Djuna **Barnes** (The novel is *Nightwood*.)

<Drama/Short Fiction>