Chicago Open 2018: The spice must flow

Edited by Auroni 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 the Editors (Finals 2)

Tossups

1. One thinker illustrates this doctrine's "sense of violation" with Nora Helmer's exclamation in A Doll's House that "I could tear myself to pieces," and with the "aversive conversation" of "remarriage comedies." In A Theory of Justice, Rawls claims that this doctrine's core principle develops as "the claims of excellence and culture" are weighed more strongly against liberty and egalitarianism; Rawls cites Nietzsche's essay "Schopenhauer as Educator" as the most aggressive formulation of this doctrine. In his 1988 (*) Carus Lectures on this doctrine, one thinker likened it to a process of making us "ashamed of our shame" by determining that "there is no 'ought' about" whether we are "drawn beyond ourselves, as we stand, or we are not." In that book, Conditions Handsome and Unhandsome, the author of The Claim of Reason analyzed this doctrine's role in the philosophy of Ralph Waldo Emerson. For 10 points, name this doctrine in moral and political philosophy repopularized by Stanley Cavell, which argues for the ongoing task of moral improvement.

ANSWER: moral perfectionism [accept Emersonian perfectionism or political perfectionism; accept perfectionist or perfection]

<Philosophy>

2. This man proved that the allocation proportional to each stratum's size times the within-stratum standard deviation is the optimal allocation for stratified sampling with a fixed total sample size. This man's intensive study of the book *The Grammar of Science* at Kharkov University led to his fruitful collaboration with the book's author's son, including proving the lemma that the likelihood ratio is the most powerful test of a given size in the case of simple null and alternative hypotheses. His solo work included inaugurating the study of (*) contagious distributions, and an approach to the theory randomized experiments that focuses on a null hypothesis of zero average treatment effect, as opposed to the zero individual treatment effect approach of Ronald Fisher. He also introduced the theory of confidence intervals. For 10 points, name this Polish-born statistician who laid out a paradigm of hypothesis testing with Egon Pearson.

ANSWER: Jerzy (Splawa-)<u>Neyman</u> (*The Grammar of Science* was written by Karl Pearson; Neyman wrote many important papers in collaboration with Karl's son Egon.)
<Other Science>

3. Note: specific term required. There are no stammerers among these people, who are the best singers in the world and the least given to insulting language, according to a treatise by al-Jahiz. Al Mas'udi's *The Meadows of Gold* describes how these people collected ambergris by cutting it out of the stomachs of choking whales in their namesake sea, and lived in a kingdom whose ruler, the *Mfalme*, was served by 300,000 cavalrymen. A group of these people built "the chosen city," al-Mukhtarah, under the leadership of the egalitarian Kharijite (*) 'Ali ibn Muhammad. In one region, large groups of these people were employed to dig drainage canals to prepare salt flats for sugar and cotton cultivation. Medieval Arab geographers called the Swahili Coast "the land of [these people]." Thousands of these people working near Basra, Iraq participated in an anti-Abbasid insurrection named for them. For 10 points, what Arab term for "blacks" names a 9th-century slave revolt?

ANSWER: Zanj [prompt on Africans, black people, Bantus, or similar answers; prompt on slaves or similar answers]

<World History>

4. This is the first noun sung in a D-major song, the third in its cycle, in which the pianist alternates sixteenth notes between the two hands. This noun is paired with "myrtles" at the beginning of the last song of Schumann's Heine Liederkreis [LEE-duh-"cries"], Opus 24. In another song, one of these things says "ich stehe dich" [eekh BRAY-uh deekh] when a human threatens "ich brehe dich" [eekh BRAY-uh deekh]. The tune of that G-major song about one of these objects begins with the eighth notes [read slowly] "B, B, B, B" and then the sixteenths [read slowly] "D-C, C-B, A." In that Lied [leed], one of these objects threatens a little (*) boy, saying "you'll always think of me," but her efforts have no effect when that boy violently has his way with it. In Tchaikovsky's Sleeping Beauty, Princess Aurora dances an Adagio named for these objects. A folksong-like early Schubert setting of a Goethe poem is addressed to a "little" one of—for 10 points—what kind of flower "on the heath," or "auf der Heiden" [owff dayn "HIGH"-den]?

ANSWER: <u>rose</u>s [or <u>rose</u>n; accept more specific roses like <u>Heidenröslein</u>; prompt on <u>flowers</u> or <u>blume</u>n] <Auditory Arts>

5. An upstart scholar of this language at the University of Texas secures a speaking engagement at a conference by attacking the pedagogical methods of his senior colleague Ezra Winthrop in the story "The Bribe." A biography by Edwin Williamson describes how an author and his students would triumphantly recite passages from this language in the streets that they spent Saturday mornings decoding at the Biblioteca Nacional. Martin Hadis and Martin Arias arranged for the transcription of lecture notes from a 1966 course at the University of Buenos Aires, whose first seven sections examine literature written in this language. (*) Borges never published his essay about Grímur Jónsson Thorkelin, who in 1787 had transcribed a poem in this language from its sole surviving copy in the Nowell Codex. *The Book of Imaginary Beings* discusses an island that turns out to be a whale, which its author had encountered in R. K. Gordon's translation of this language's bestiary in The Exeter Book. For 10 points, the tombstone of Borges is inscribed with a line from what language's poem "The Battle of Maldon"?

ANSWER: Old English [or Anglo-Saxon; prompt on English since Borges taught an English literature class] < Miscellaneous Lit>

6. One book about this place highlights its residents "fear of the Dutchman" and includes a call for "vital intensity" in a chapter titled for this place's "affirmation." That examination of the relationship between "insularity" and this place's cultural identity is by a member its "Generation of 1930." A 1900 law prohibited corporations from holding more than 500 acres of land in this polity. Over a dozen "Cadets of the Republic" were massacred during a protest in this polity, after their permits were suddenly withdrawn by Blanton (*) Winship. A letter in which Cornelius "Dusty" Rhoads bragged about injecting cancer cells into residents of this polity was publicized by the leader of its Nationalist Party, who was later arrested for his role in uprisings here after the passage of Law 53, or the "Gag Law." The Jones—Shafroth Act replaced the Foraker Act's policy toward this territory, making its residents American citizens. Pedro Albizu Campos led the independence movement of—for 10 points—what American territory gained after the Spanish—American War?

ANSWER: <u>Puerto Rico</u> (The first two clues refer to Antonio Pedreira's *Insularismo*.) <American History>

7. Lodewijk Woltjer proved that a linear force-free field minimizes energy under the constraint that this quantity must be held constant, inspiring John Taylor's suggestion that the reversed field pinch and other phenomena can be explained by assuming that linear force-free fields result from relaxation in low-beta systems. This quantity is gauge invariant if it is defined on volumes whose boundaries are not pierced by field lines, and Woltjer further proved that this quantity is conserved in systems with zero resistivity. An analogue of this quantity in fluid mechanics must be non-zero for alpha-effect dynamos, and is based on the fluid velocity and (*) vorticity. For a pair of linked flux rings, this quantity equals the product of the magnetic fluxes regardless of how the rings are deformed, indicating that this quantity is a measure of global magnetic field topology. For 10 points, the volume integral of the dot product of the vector potential and magnetic field is what measure of how much magnetic field lines coil?

ANSWER: magnetic <u>helicity</u> <Physics>

8. "Rhythmized" works in this medium are discussed alongside "round houses" in the chapter about Mande influence on American art in Robert Farris Thompson's Flash of the Spirit. This medium has been used to make abstract works like Symphony of Colors and politically engaged pieces like Biometric Generation No.5 by Abdoulaye Konaté. Adinkra symbols are most commonly used in this medium, which is manipulated in a technique whose transplantation by the Dutch led to the creation of the style (*) ankara. Bottlecaps and other pieces of scrap metal are assembled into sculptures resembling this material by Ghanaian artist El Anatsui. In Mali, this material is often dyed with fermented mud, and it's resist-dyed in Javanese batik. Different-colored strips are interlaced to make the Akan "kente" type of—for 10 points—what kind of material that's often decorated to make West African "wax prints"?

ANSWER: <u>cloth</u> [or <u>textile</u>s or <u>fabric</u>s; accept more specific answers like <u>mudcloth</u>] <Other Fine Arts>

9. A poem by this author draws out the spelling of the words "love," "goodbye," "forgive," "return," and "alas" to simulate their transmission across telegraph wires. This poet wrote that the name of an older contemporary was "a bird in my hand, / a piece of ice on my tongue." This author lamented: "A stroke of the oars / and a long coastline -- / and the memory of me / is soon a drifting island," in a poem asking a former lover if his "life with that other one" is as "Hard as mine / with another man?" She wrote: "This is my first letter to your new address" in the poem "New Year's Greetings," an elegy for (*) Rainer Maria Rilke, with whom this author and Boris Pasternak exchanged many letters. This author of "An Attempt at Jealousy" penned the sequence *The Girlfriend* celebrating her affair with the poet Sophia Parnok. She hanged herself in 1941 rather than inform for the NKVD, who had executed her husband Sergei Efron, a White Army officer whom this poet glorified in her collection *Swans' Encampment*. For 10 points, name this bisexual female Russian poet.

ANSWER: Marina (Ivanovna) <u>Tsvetaeva</u> [or Marina <u>Cvetaeva</u>] <Poetry>

10. Mariano Turzi has argued that the production of this good has caused national borders to lose ground to a multinational "Republic" named for it. The MAP is a movement organized by residents of Tekojoja to resist their eviction by producers of this good. The politician Blairo Maggi owns the world's largest producer of this good, which has been implicated in a process that has destroyed many of a region's "flying rivers." The production of this good skyrocketed after the decline of the Peruvian anchovy industry, and it is the main use of land owned by so-called (*) brasiguayos. Cargill, Inc. and Archer Daniels Midland operate processing plants for this good, the vast majority of which is turned into animal feed, in the Gran Chaco. Food products such as natto and tempeh are made using—for 10 points—what legume, whose cultivation in South America has recently led to mass deforestation in the Amazon?

ANSWER: **soy**bean [or **soy**a bean]
Mythology/Geography/Current Events>

- 11. One of this author's characters asks her father to take a set of books of Paul Klee's paintings to a convent in order to inspire his design work. A novel by this author includes an extended discussion of a photograph that fades when it is removed from the grave of a princess who had died clutching it in her arms. In that novel by him, the lover of a female painter seduces a shy college student, takes him out to a lake on a motorboat, then stages his drowning as an accident. This man finally decided to become a writer rather than a painter after the death of his grandfather, the looming event at the center of his "Diary of a (*) Sixteen Year Old." This author devoted a large part of his Nobel lecture to explaining the poems he had chosen to illustrate with his calligraphy. At the end of a novel by this author, a woman symbolically surrenders herself to a much older man by smashing a cylindrical white tea bowl stained with a trace of her mother's lipstick. For 10 points, name this Japanese author who infused his passion for the visual arts into his novels *Beauty and Sadness* and *Thousand Cranes*.

 ANSWER: Yasunari Kawabata [accept names in either order]

 <Long Fiction>
- 12. A pamphlet war over the justification for this event was waged between the publisher Elie Luzac and Jan Wagenaar, who argued over whether the concept of "True Freedom." After being exiled due to his part in the Buat conspiracy, Johan Kievit returned to orchestrate this event. A philosopher's landlord locked him inside in order to prevent him from rushing to the site of this event and depositing a placard reading "Ultimi barbarorum." This event was long commemorated by the display of a dried tongue and finger in the Prison Gate on the (*) Buldenhof, where this event occurred. The main target of this event had earlier attempted to shore up his power by signing the Perpetual Edict. During this event, militia members hung its victims upside down from a scaffold, where they were torn apart by a cannibalistic mob. This event targeted a Grand Pensionary who was blamed for an Anglo–French invasion during the "disaster year," and it ended the first stadtholderless period. For 10 points, William of Orange may have been complicit in what 1672 murder of a Dutch politician and his brother? ANSWER: the murder of the De Witt brothers [accept synonyms for grisly mob murder such as lynching, assassination, dismemberment, etc; accept answers mentioning Johan de Witt and/or Cornelius de Witt] <European/Canadian/Australian History>

13. In one essay, this author satirically imagined another author going to the archives of the Saturday Evening Post to research the work of Clarence Budington Kelland. This author criticized a certain thinker for building his aesthetic "not on art...but on whether the raw material of art is still visible." The sounds of the Eddie Cantor show are used to evoke the "childhood of the race" in a work this author favorably compares to You Only Live Once and They Live by Night. This author sarcastically termed "technical competence," "distinguishable personality," and "interior meaning" the outer, middle, and inner circles in a critique of Andrew (*) Sarris' formulation of auteur theory. William Shawn hired this author of "Circles and Squares" after running her 8,000-word vindication of the "violence without sadism" in Arthur Penn's film Bonnie and Clyde. For 10 points, name this longtime film critic at the New Yorker, whose reviews and essays are collected in books such as I Lost it at the Movies.

ANSWER: Pauline <u>Kael</u> <Other Academic>

14. This specific functional group is attached to a pyridinium ring in a molecule that can be used to displace organophosphates like sarin from the acetylcholinesterase active site. When these molecules are treated with benzenesulfonyl chloride, they form substituted ureas in the Tiemann rearrangement. A pyridine molecule and two equivalents of a ligand containing two of this specific functional group chelate cobalt in a coordination complex used to model vitamin B12. That ligand, which can also used to quantify the presence of nickel because it forms a bright red chelation complex, is (*) dmgH. Cyclohexenone is converted to one of these molecules and then dehydrates to form aniline in the Wolff aromatization. Cyclohexane can be be reacted with hydroxylamine to form an intermediate with this functional group, which undergoes a Beckmann rearrangement in the presence of acid to form caprolactam. For 10 points, name this functional group consisting of an imine where the nitrogen is bonded to a hydroxyl.

ANSWER: **oxime**s [prompt on <u>imine</u>s or <u>hydroxyl</u>s before they're mentioned] <Chemistry>

15. A tiny valley in this modern country contains nine First Romanesque churches, including the best preserved Romanesque frescoes. Meyer Schapiro wrote a lengthy article about the transition to Romanesque style in manuscripts and sculptures at a monastery in this country. Manuscript illuminators from this country often used blocky, abstract fields of color as backgrounds in copies of Beatus's Commentary on the Apocalypse. A bronze sculpture now called the Pisa (*) Griffin was produced in this country. A building in this city includes a ceiling decorated with a geometrical depiction of the night sky in its Hall of the Ambassadors. That palace in this modern country includes numerous elaborate muqarnas in its Court of the Lions. This country's use of trilobe and horseshoe arches has been attributed to both Islamicate and Visigothic influence. For 10 points, name this modern country where Mozarabic and Mudéjar art styles flourished.

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

<Visual Arts>

16. A May 2017 bioRxiv paper by Jay Shendure's lab reported a modified version of eQTL to map enhancer activity by combining RNA-seq with this technique. A June 2018 bioRxiv paper reported the development of next-generation libraries for use in this technique named Dolcetto, Calabrese, and Bruenllo. CROP-seq combines single-cell RNA seq with cells derived from this technique. In 2015, Hart et al. performed a comprehensive identification of fitness genes in human cells using this technique. In 2017, Tsherniak et al. performed this technique in 501 different cancer cell lines to define a cancer dependency map. A combinatorial method of performing this technique reported in 2018 in Nature Biotechnology is termed Big Papi, for (*) "paired aureus and pyogenes for interactions. The first application of this technique identified genes conferring resistance to 6-thioguanine and was performed in the labs of David Sabatini and Eric Lander. Designing libraries for use in this technique requires optimizing sgRNA guide design. For 10 points, name this technique that use a technology derived from a bacterial viral immunity system to sequence for potential mutations. ANSWER: CRISPR screens [prompt on CRISPR with "using CRISPR to do what?", prompt on screening with

"screening with what?"]

<Biology>

17. An essay by this man discusses the "vanishing primitive" narrative of Western ethnography alongside three allegorical "levels" in Marjorie Shostak's Nisa. This man wrote the introduction for a book that was the subject of a feminist response edited by Ruth Behar and Deborah Gordon. The biographical narratives of Joseph Conrad and Bronislaw Malinowski were analyzed as forms of self-fashioning in a later book by this man, who wrote the essay "Partial Truths" for a book that was accused of excluding feminists and "halfies" in an early article by Lila Abu-Lughod. This man described the work of Michel Leiris [lay-REESS] as "ethnographic (*) surrealism" in a book that ends with an account of the trial over the tribal identity of the Mashpee indians. This author of *The Predicament of Culture* was the alphabetically-first editor of a book that eschews the image of the anthropologist in the field to analyze ethnography as the "making of texts." For 10 points, what anthropologist edited the book Writing Culture with George Marcus?

ANSWER: James Clifford

<Social Science>

18. This character "cannot control his bitterness" when reminded how as a child, he used to "cry at the drop of a hat." He grumbles about his family's penny-pinching refusal to keep even a single light on in the hallway at night, after banging his knee while reentering the stage for the final act. This character admits that "Stammering is the native eloquence of us fog people," in embarrassment upon gushing about belonging to "something greater than my own life, or the Life of Man, to Life itself!" when he was aboard a merchant ship bound for Buenos Aires. This character recites (*) Baudelaire's prose poem advising: "Be drunken always" and quotes poems by Dowson and Swinburne while playing a lazy game of cards against his father. He hits his brother for wisecracking about Ophelia after their mother appears holding her wedding gown, muttering about joining a convent, in a morphine-induced hallucination. For 10 points, name this self-portrait of Eugene O'Neill, the tubercular younger Tyrone son in Long Day's Journey Into Night.

ANSWER: **Edmund** Tyrone [prompt on Tyrone before "Tyrone" is read]

<Drama>

19. A man arrested for sending a report about these places to *The Times* was exchanged for the Chilean politician Luis Corvalán at the Zurich airport in 1976. The future first president of Georgia, Zviad Gamsakhurdia, spent time in one of these places after demonstrations in Tbilisi. Before being dispatched to these places, many people spent time in the Serbsky Centre headed by Daniil Lunts. The use of these places in one country was tardily condemned by the WPA at its Sixth World Congress, forcing that country to withdraw from the organization. A "working commission" to investigate the use of these places was formed as an offshoot of a (*) watch group co-founded by Yelena Bonner. Many of the people sent to these places were found to have ideas about the "struggle for truth and justice," a symptom of the "sluggish" variety of a certain condition. *Psikhushka* was the common term for these places, which were used to house dissidents like Joseph Brodsky. For 10 points, the Soviet government placed political prisoners in what places in an instance of the political abuse of psychiatry?

ANSWER: Soviet <u>psychiatric hospital</u>s [accept obvious equivalents such as insane <u>asylum</u>s or <u>psych ward</u>s; accept <u>psikushk</u>a before "psikhushka" is read; prompt on <u>hospital</u>s]
<European History>

20. In *The Stripping of the Altars*, Eamon Duffy recounts how, when this practice became widespread, some medieval English people would go to several Masses in one Sunday, leaving immediately after the performance of this ritual. Along with several bows, one version of this ritual is performed between the two components of the *anaphora*, which are followed by the *anamnesis*. In the Roman Canon, one instance of this practice follows the "Per quem hæc omnia" and coincides with the "Per ipsum," i.e. "Through him, and with him, and in him...." After one version of this ritual, its central object is returned to the (*) paten. In Catholicism, this nonverbal practice and its two surrounding bows are each accompanied by a ringing of the altar bell. This ritual typically comes before the Fraction following the Words of Institution and the Lord's Prayer, and was originally designed to make the product of transubstantiation visible. For 10 points, name this ritual in which the consecrated bread and wine is raised.

ANSWER: <u>elevation</u> of the Host [accept any answer involving <u>elevation</u>, e.g. <u>elevation of the Elements</u>; prompt on <u>Eucharist</u>]

<Religion>

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Packet by the Editors (Finals 2)

Bonuses

1. This festival includes processions with the Nishan Sahib flag. For 10 points each:

[10] Name this New Year's festival. The Khalsa was created on this day in 1699.

ANSWER: **Vaisakhi** [or **Baisakhi**; do not accept or prompt on "Vesak"]

[10] The Khalsa was created by this last human Sikh guru, who also instituted the Five Ks.

ANSWER: Guru Gobind Singh [do not accept or prompt on "Hargobind"]

[10] Gobind Singh also gave a Sikh spin to this other festival, keeping its use of *gulal*. Participants in this festival often shout obscenities and drink an intoxicating, marijuana-based drink called *bhang*.

ANSWER: Holi [accept Hola Mohalla]

<Religion>

- 2. William Douglass attacked Cotton Mather during a 1721 epidemic of this disease for promoting an inoculation method that Mather learned from his slave Onesimus. For 10 points each:
- [10] Name this disease, which was transmitted through infected blankets to the Delaware by a besieged British militia at Fort Pitt in 1767.

ANSWER: smallpox

[10] This Native American tribe attributed the smallpox epidemic of the late 1730s to the spread of tiny evil spirits called Kosvkv Askini and tried to combat it by modifying their Atohvna Ceremony, which involved a purifying rite of "Going-to-Water" to gain the Long Man's powers.

ANSWER: Cherokee

[10] Recent work on Native Americans' encounters with disease has challenged *this* historian's "virgin soil" model of infection, which argues that lack of genetic immunity is the main reason diseases like smallpox were so deadly for native populations. This historian coined the term "Columbian Exchange" in a 1972 book of that title.

ANSWER: Alfred W(orcester) Crosby, Jr.

<American History>

- 3. Federico Garcia Lorca drew a series of images to accompany this poem, one of which depicts a series of disembodied lips radiating out from a single eye. For 10 points each:
- [10] Name this poem whose speaker encounters "hideous intestines / hanging over the doors of houses that I hate" and clotheslines containing "underwear, towels and shirts from which slow / dirty tears are falling."

ANSWER: "Walking Around" [by Pablo Neruda"]

[10] This poet satirized "Walking Around" in his poem "Lyric Poet Pithecantropos Erectus," which appears in his collection *Artefactos*. In an academic speech delivered in front of Neruda, this Chilean author noted that giving academic speeches was contradictory to his status as an "anti-poet."

ANSWER: Nicanor Parra

[10] Parra's occasionally lukewarm attitude toward Neruda shows up in a short poem of his that claims "Chile's four great poets / are three: / Alonso de Ercilla" and this notably Nicaraguan member of the *modernismo* movement who wrote "To Roosevelt."

ANSWER: Rubén **Darío** [or Félix Rubén **García Sarmiento**]

<Poetry>

- 4. This thinker analyzed the effect of public spectacles on national identity in her book *Disappearing Acts*. For 10 points each:
- [10] Name this NYU professor who criticized the privileging of "supposedly enduring" sources over "embodied practice/knowledge" in her book *The Archive and the Repertoire*.

ANSWER: Diana Taylor

[10] In *The Archive and the Repertoire*, Taylor illustrates *this* concept by discussing the reactions of minority populations to the death of Princess Diana. This punning portmanteau was coined by Jacques Derrida in *Specters of Marx* to describe the study of ghosts "neither present, nor absent, neither dead nor alive."

ANSWER: hauntology

[10] Derrida himself analyzed the archive in his "Archive Fever," which centers around *this* thinker's essay on the "Mystic Writing Pad." This thinker borrowed Romain Rolland's notion of the "oceanic feeling" to argue that people who experience oneness with the world through religion are really experiencing preserved feelings from infancy.

ANSWER: Sigmund Freud [or Sigismund Schlomo Freud]

<Other Academic>

- 5. A *khatun* of these people, Mandukhai the Wise, married the 7-year-old orphan whom she proclaimed king after he reached maturity. For 10 points each:
- [10] Name these people whose queens are the subject of a 2011 book by Jack Weatherford, and included Börte, the wife of Temujin.

ANSWER: Mongols

[10] Jack Weatherford's book about the Mongol queens is titled in reference to this mythologized account of Genghis Khan's family lineage. The female characters of this Mongolian-language text include Alan Gua, who gives her sons a bundle of five arrows to demonstrate the value of unity.

ANSWER: The **Secret History** of the Mongols

[10] This historian apologized to his readers for discussing women in his history of the Mongols, but explained that it was necessary since the Mongols accorded equal treatment to women. This Persian vizier of the Ilkhanate produced the *Compendium of Chronicles*, which is often called the first world history.

ANSWER: **Rashid**-al-Din Hamadani [or **Rashid**-ad-Din]

<World History>

- 6. The opening of this opera's prelude was plagiarized by Smetana for the dance of the mermaids in "The Moldau." For 10 points each:
- [10] Name this opera whose heroine narrates a dream about a literal knight in shining armor in the soliloquy "Einsam in Trüben Tagen" [EYEN-zahm in TREW-ben TAH-gen]. It was its composer's first "music drama," meaning that it lacks recitatives or even traditional arias.

ANSWER: *Lohengrin*

[10] The most famous excerpt from *Lohengrin* is a "Chorus" that's often used as a processional at *these* occasions. Mendelssohn's incidental music to *A Midsummer Night's Dream* includes a "March" celebrating one of these events.

ANSWER: weddings [accept marriages]

[10] The first statement of the Grail Theme at the beginning of the *Lohengrin* Prelude uses *this* somewhat uncommon notational device on the first long note. In Baroque music, something like this notational device is thought to be implied in the slow sections of French overtures, which is why performers "sharpen" their rhythms.

ANSWER: **double dotting** [accept **overdotting**; prompt on partial answer]

<Other Fine Arts>

7. Inhibition of the Xc- ["X C minus"] cystine-glutamate antiporter by erastin leads to this process. For 10 points each: [10] Name this type of cell death in which lipid peroxides accumulate when glutathione peroxidase 4 is inhibited. In 2017, Stuart Schreiber's lab found that a high-mesenchymal, chemotherapy-resistant cancer cell state was linked with susceptibility to this process.

ANSWER: ferroptosis

[10] Glutathione peroxidases are one of the only proteins in the human body that contain this nonmetal.

ANSWER: **selenium** [or **Se**]

[10] By performing an erastin resistance screen, Stockwell et al. identified a portion of this specific subunit of a protein as being crucial to ferroptosis. This water insoluble protein subunit directly rotates when protons pass through it.

ANSWER: the **<u>F0</u>** subunit of ATP synthase [prompt on <u>ATP synthase</u>] <Biology>

- 8. In one of these people's creation stories, there was nothing but bats fighting each other in the darkness until the sun created the earth and left his son Tupa in charge. For 10 points each:
- [10] Name these people. Their myths center on the seven monstrous offspring of Tau, who were cursed by Arasy after Tau defeated goodness and raped Kerana.

ANSWER: Guarani

[10] Porasy sacrificed herself to kill the sons of Kerana by getting them drunk before a wedding and setting them on fire in a location of this type protected by the monster Teju Jagua. Incan mythology holds that Manco Capac and his siblings emerged either from Lake Titicaca or from a place of this type near Cuzco.

ANSWER: caves

[10] The Guarani say that these waterfalls on the Argentina–Brazil border were created when the river serpent monster M'Boi fell in love with the girl Naipa and demanded her sacrifice but she fled in a canoe.

ANSWER: Iguazú Falls

<Mythology>

- 9. A 1955 essay originally written as lecture at Cambridge University observes that though the people in Hemingway's stories "give pain" and are "callous and insensitive, empty and cruel," this aspect of his fiction "heals the hurt, soothes the outrage," and "fills the terrible vacuum that these human beings make." For 10 points each: [10] Identify this aspect, which Eudora Welty called "one of the lesser angels that watch over the racing hand of fiction" in an essay examining its role in binding together feelings, memory, history, and love.

 ANSWER: the sense of **place** [prompt on <u>location</u> or <u>setting</u> or other near-synonyms; Welty's essay is called "Place in Fiction"]
- [10] In "Place in Fiction," Welty observes that "the most thorough and faithful picture of a Mississippi crossroads hamlet that you could ever hope to see" can be found in this Faulkner novella, in which a group of wild animals gathered by Flem Snopes escape *en masse* after being sold at auction.

ANSWER: "Spotted Horses"

[10] This writer observed "How hard it is to escape from places," because in doing so "you leave little bits of yourself fluttering on the fences." Welty suggests that it was while she was "eleven thousand miles from home, out of homesickness" that this author wrote regional stories like "The Garden Party."

ANSWER: Katherine <u>Mansfield</u> [or Katherine <u>Mansfield</u> Beauchamp; or Katherine Mansfield <u>Murry</u>] <Short Fiction>

- 10. These things provide the alternate name of the Weizsäcker–Williams [VYTE-sacker-Williams] method, which is used to calculate cross-sections of electromagnetic interactions of relativistic particles. For 10 points each:
- [10] Name these things, whose Thompson or Compton scattering gives a simple approximation of synchrotron and bremsstrahlung radiation.

ANSWER: virtual quanta [accept virtual photons or the Weizsäcker-Williams method of virtual quanta]

[10] The principle of virtual work is extended to non-static systems by this principle, which states that the total virtual work done by real and inertial forces vanishes on any reversible virtual displacement. It was first written in a variational form by Lagrange.

ANSWER: <u>d'Alembert's</u> principle [accept Lagrange-<u>d'Alembert</u> principle]

[10] A diverging lens will produce a virtual image if the object is placed at *this* distance from the lens. A description is fine

ANSWER: <u>any</u> distance [accept <u>anywhere</u> or answers indicating the lens <u>always produces a virtual image</u>] <Physics>

- 11. Proponents of a literal interpretation of this word draw on sources such as Epaminondas yelling "one pace more!" at Leuctra to claim that the tactic it describes was akin to a rugby scrum. For 10 points each:
- [10] Name this Greek word for a style of hoplite combat, which has led to debate between historians who hold that the pushing it refers to was a literal shoving match of shields and those who argue it was metaphorical.

ANSWER: othismos

[10] The *othismos* style used in hoplite battles occurred between these rectangular formations of soldiers, whose first row locked their shields together as they marched.

ANSWER: phalanx

[10] Proponents of the "literal model" also point to Xenophon's mention of how "shield pressed upon shield they struggled" in his account of this war's Battle of Coronea.

ANSWER: Corinthian War

<European History>

- 12. For 10 points each—answer the following about Henry Tonks, Britain's answer to William Merritt Chase:
- [10] Tonks took up an art history professorship named for *this* man at UCL's art school, which is also named for him. This collector also endowed namesake professorships at Cambridge and Oxford, the latter of which was first held by John Ruskin.

ANSWER: Felix Slade

[10] Henry Tonks saw a "crisis of brilliance" in his class of students at the Slade School just prior to *this* war. During this war, the Britain War Memorials Committee commissioned John Singer Sargent to paint *Gassed*.

ANSWER: World War I [or WWI or The Great War]

[10] Another of Tonks' talented students was David Bomberg, whose Jewish heritage did not stop him from producing *The Mud Bath*, a defining image of *this* movement, which was announced in the magazine of *BLAST* and led by the anti-Semites Wyndham Lewis and Ezra Pound.

ANSWER: **Vorticism** [accept word forms]

<Visual Arts>

- 13. A 2012 study by Kahn et al. found that more than half of their child subjects were unwilling to put one of these entities in a closet. For 10 points each:
- [10] Name these entities. In her book *Alone Together*, Sherry Turkle criticizes the use of entities of this kind, such as "Paro," as a substitute for elder care.

ANSWER: social **robots** [prompt on answers like <u>computers</u>, <u>artifical intelligence</u>, or <u>AI</u>]

[10] This foundational concept in the psychology of human-robot interaction was formulated by Clifford Nass and Byron Reeves, who argued that people tend to treat computers and robots as if they're real people.

ANSWER: the Media Equation

[10] One notable counterexample to the "Media Equation" was a 2005 replication of one of *this* psychologist's experiments, in which Bartneck et al. found that 100% of their participants were willing to give the maximum level of electric shocks to a robot.

ANSWER: Stanley Milgram

<Social Science>

- 14. In an intellectual history of these events, David Armitage argues that this concept has been misapplied in mainstream analysis of recent history. For 10 points each:
- [10] Name these events. A "planetary" one of these events is posited in the subtitle of Hito Steyerl's *Duty Free Art*, which distinguishes between the repetition of history that Marx calls farce and the improvisational historical looping that one sees in the Tom Cruise film *The Edge of Tomorrow*.

ANSWER: **civil war**s [prompt on partial answer]

[10] Steyerl draws on this author's book *Stasis: Civil War as a Political Paradigm* in her analysis of *Edge of Tomorrow*. While *Statis* focused on Athenian politics, this author is better known for tracing the notion of a "state of exception" back to Roman law.

ANSWER: Giorgio **Agamben**

[10] Like Steyerl, Stephen Mulhall has written philosophical treatments of Tom Cruise films, analyzing the *Mission Impossible* films through the philosophy of *this* anti-Semitic author of *Being and Time*.

ANSWER: Martin **Heidegger**

<Philosophy>

- 15. This work refers to its author's adopted home of Argentina as "*mercifully* devoid of national geniuses." For 10 points each:
- [10] Name this work that was serialized in the magazine *Kultura* between 1953 until its author's death in 1969, and which opens with the declaration "Monday / Me. / Tuesday / Me. / Wednesday / Me. / Thursday / Me."

ANSWER: <u>Diary</u> [or <u>Dziennik</u>; accept, BUT DO NOT REVEAL, the <u>diaries</u> or <u>journals</u> of Witold <u>Gombrowicz</u>] [10] *Diary* is often considered the masterpiece of this Polish author, who also wrote the novels *Ferdydurke* and *Pornografia*.

ANSWER: Witold (Marian) Gombrowicz

[10] Gombrowicz's diary hilariously notes that this author wrote "the way a child pees against a tree, in order to relieve himself." For a scene in *Ferdydurke* involving a "duel of grimaces," Gombrowicz rewrote this author's depiction of a "scholarly disputation" in which Panurge defeats Thaumast by making an uglier face than him.

ANSWER: François **Rabelais**

<Miscellaneous Lit>

- 16. This practice was pioneered by Count Makuchi in the 1950s, but it was popularized internationally by U-Roy. For 10 points each:
- [10] Name this practice in which "deejays" chant and rhyme over an instrumental track called a "riddim." It was a major influence on early American rap.

ANSWER: toasting

[10] Toasting is a musical practice from this Caribbean island nation, where the genres of ska and rocksteady developed.

ANSWER: Jamaica

[10] King Tubby pioneered the Jamaican genre of dub, which is generally regarded as the first genre to focus on producing *this* kind of song. 12-inch single pioneer Tom Moulton is often credited with inventing this kind of song. ANSWER: **remix**es [prompt on mixing; prompt on anything indicating an alternate version]

<Auditory Arts>

- 17. This coupling reaction accomplishes the difficult task of forming carbon-nitrogen bonds. For 10 points each:
- [10] Name this palladium-catalyzed coupling reaction developed in the 1990s and early 2000s that allows for the facile synthesis of aromatic amines from aromatic halides, using palladium complexed to sterically hindered phosphine ligands.

ANSWER: Buchwald-Hartwig amination

[10] The Buchwald–Hartwig amination is difficult to catalyze because this organometallic transformation, which is the last step in its reaction mechanism, is disfavored between carbon and nitrogen ligands. Sterically hindered phosphine ligands are effective at speeding up this step, where metal coordination decreases by two.

ANSWER: reductive elimination

[10] This other cross-coupling reaction forms (alpha,beta) or (beta,gamma)-unsaturated aromatic alcohols from reaction of aromatic aldehydes and vinyl or allyl halides. It is catalyzed by chromium(II) and nickel(II) ions, and shows high specificity for the aldehyde functional group in its aromatic reactant.

ANSWER: <u>Nozaki–Hiyama–Kishi</u> reaction [or <u>NHK</u> coupling] <Chemistry>

- 18. A "majestically skittish" character with this surname is repeatedly compared to a "rocking-horse," while another uses a strange flourish of his right hand to sweep away statements he finds disagreeable. For 10 points each:
- [10] Give this surname of a pompous married couple who lend their name to a word suggesting a smugly complacent attitude toward life.

ANSWER: **Podsnap** [or John **Podsnap** or Georgiana **Podsnap**; accept **Podsnappery**]

[10] The Podsnaps appear in this Charles Dickens novel, in which Noddy Boffin inherits a large sum of money after the presumed drowning of John Harmon.

ANSWER: Our Mutual Friend

[10] In his essay "Art and Neurosis," this American literary critic blamed the "excommunication of the arts" on the institution of a "scheduled morality" by a group of nineteenth-century "bourgeois philistines" he calls "Messrs. Podsnap." This longtime Columbia professor also wrote the book *Sincerity and Authenticity*.

ANSWER: Lionel Trilling

<Long Fiction>

- 19. The Hubble constant is about 70 kilometers per second per this unit. For 10 points each:
- [10] Name this prefixed unit, which equals about 3.26 million light-years.

ANSWER: megaparsecs

[10] This cosmological parameter is the amplitude of the linear matter power spectrum on scales of 8 megaparsecs over the Hubble parameter.

ANSWER: $\underline{\sigma}_8$ ["sigma eight"] [prompt on $\underline{\text{sigma}}$]

[10] The choice of 8 megaparsecs over the Hubble parameter as the length scale for defining σ_8 is meant to reflect the typical size of these gravitationally bound objects. They are affected by cooling flows.

ANSWER: **galaxy cluster**s [prompt on <u>cluster</u>s; do not accept or prompt on galaxy <u>supercluster</u>s or <u>galaxies</u>] <0ther Science>

- 20. A Francisco Rolão Preto led a fascist movement named for the national form of this ideology, whose members made up the Blue Shirts militia of 1930s Portugal. For 10 points each:
- [10] Name this ideology advocated in points 9-16 of the Falange Party's twenty-six point program, which Franco implemented in Spain by creating a single "vertical" one of this ideology's namesake entities.

ANSWER: **syndical**ism [prompt on <u>corporatism</u>, <u>integral</u>ism, or <u>union</u>ism]

[10] Another, non-fascist variant of syndicalism popular in Second Republic Spain was the anarcho-syndicalism of this trade union, which basically ran Barcelona until government forces defeated it and the POUM during the 1937 May Events.

ANSWER: <u>CNT</u> [or <u>Confederación Nacional del Trabajo</u>; or <u>National Confederation of Labour</u>; accept <u>CNT-AIT</u> or <u>CNT-FAI</u>]

[10] The clandestine Workers' Commissions that organized workers outside of Franco's Vertical Syndicate was supported by this organization. Opus Dei, an institution for lay members of this organization, supplied many of the technocrats in Franco's government.

ANSWER: Roman Catholic Church

<European History>