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 Penning Thirst Trap (Tracy Mirkin, Jonathen Settle, Alex Shaw, and Taylor Harvey); and by Amazing: This IoT-Integrated Paleolithic Adze Unleashes the Transformative Power of Blockchain (Ryan Humphrey, Jack Mehr, Geoffrey Chen, and Naveed Chowdhury)

Tossups

1. A practice associated with these places was criticized as "suggestive of loose-living" in Katip Celebi's *The Balance of Truth*. In one tradition, these places are associated with achieving a state of *marqaha*. One of these places named Qushtumur titles the final novel by Naguib Mahfouz, who frequently set scenes in places of this type called 'ahawis. The *ulama*'s influence on Shah Abbas I likely led him to send mullahs to these places to recite homilies and poetry. One book argues that, along with *Tisch-gesellschaften* and (*) salons, these places were representative institutions of the "town," and claims that they "preserved a kind of social intercourse that, far from presupposing equality of status, disregarded status altogether." Post-Restoration examples of these establishments helped foster debates among the bourgeoisie, according to Jurgen Habermas's *Structural Transformation of the Public Sphere*. For 10 points, name these historically male-dominated establishments that serve drinks made from *robusta* and *arabica* beans.

ANSWER: <u>coffeehouse</u>s [accept <u>coffee shop</u>s, <u>café</u>s or any answer indicating a place where <u>coffee</u> is <u>drunk</u>] <Other Academic>

2. An object now named for this family was inscribed on the back with a list of relatives of Brunhilda of Austrasia. In that object named for this family, the central man's horse rears above Gaia, while his spear blocks the face of a barbarian with a Phrygian cap. A beardless Christ appears in the top panel of a five-panel "diptych" named for this family, whose bottom panel shows subjugated Goths and Indians bringing tribute to an emperor on horseback. Anastasius I, Zeno, or, more likely, Justinian is depicted in a 6th-century Byzantine ivory named for this family. A satyr splays his legs in a Hellenistic marble (*) Faun named for this family. A member of this family had the bronze columns of the Pantheon melted down to make the Baldachin in St. Peter's, prompting a critic to remark that this family finished the job for the barbarians. Pietro da Cortona's Allegory of Divine Providence was made for a ceiling in this family's palace. Pope Urban VIII was a member of—for 10 points—what Italian family whose coat of arms featured bees?

ANSWER: <u>Barberini</u> [accept <u>Barberini Ivory</u>, <u>Barberini Diptych</u>, <u>Barberini Faun</u>, "<u>What the barbarians did not do, the Barberini did</u>," or "<u>Quod non fecerunt barbari, fecerunt Barberini</u>"] <Visual Arts>

3. E. K. Bennett traced this genre's mid-19th century transformation into a "substitute for tragedy" to the publication of Otto Ludwig's Zwischen Himmel und Erde. In a work titled for this genre, a captive tiger chases after a princess upon escaping from a burning village fairground. In an offhand remark to his secretary Eckermann, Goethe defined this genre as an "unheard of event that has occurred." Paul Heyse wrote that the plots of these works should be distillable into unique "silhouettes," citing the prototypical example of (*) Federigo's falcon in the Decameron. In an entry from publisher Melville House's series titled for The Art of this narrative form, the castle of Junker von Tronka is burned down by a man in revenge for the mutilation of his horses. This is the usual classification of a work whose protagonist ignores an Englishman's warning of a cholera epidemic so as not to scare off the Polish boy Tadzio. Kleist's Michael Kohlhaas and Mann's Death in Venice are German examples of, for 10 points, what prose genre intermediate in length between the story and novel?

ANSWER: **novella** [or **novelle**; do not accept or prompt on "novel"]

<Short Fiction>

4. Deltahedral molecules with five, eight, nine, and eleven vertices seem to inherently possess this property. In diamagnetic molecules that have this property, it is often attributed to second-order, or pseudo- Jahn-Teller distortions. In his studies of the molecule 1,3,5,7-tetra·methyl·cyclo·octa·tetra·ene, F. Albert Cotton demonstrated a novel form of this property mediated by transannular jumping. This property can be seen in η³ ["eta-3"] allyl-metal complexes by observing only (*) two peaks in the ¹H ["proton"] NMR spectrum at room temperature, in part due to "ring-whizzing." Bullvalene exhibits an extreme version of this property by constantly undergoing degenerate Cope rearrangements. Berry pseudorotations of pentacoordinate compounds and the spontaneous chair conversions of cyclohexane typify—for 10 points—what ability of molecules to interchange atoms between equivalent positions?

ANSWER: **fluxional**ity [or stereochemical **nonrigid**ity; prompt on <u>isomerization</u>] <Chemistry>

5. A character with this profession corrects the lyrics of a song about Granuaile while speaking with a Ragged Man, and is assisted by men simply called X and B. In a play, Mairtin helps dig up a grave while watched by his brother, a character with this profession who drowns himself in the lake where bags of bones are sunk by Mick Dowd. Sympathies for Jimmy Walsh cause a character to turn down a hundred-pound reward in a play about a man in this profession. Tom Hanlon, a member of this profession, possesses Oona's locket in A (*) Skull in Connemara. A character with this profession mails a cash box which turns out to be a black box filled with omnium. In later novel, a character with this profession takes the protagonist to an underground chamber where cigarettes doesn't burn down and time stands still, titled "Eternity." That novel titled for this profession follows a scholar of de Selby's who murders Mathers with his friend Divney. For 10 points, name this profession which titles a Flann O'Brien novel about a "third" one.

ANSWER: **policeman** [accept obvious equivalents] <Miscellaneous Lit>

6. Description acceptable. They're not foodstuffs, but objects of this kind are sometimes taken out into the street during hakafot. The arrangement of four of these objects was the subject of a dispute between Rashi and his grandson Rabbeinu Tam. Small objects of this kind are typically made of klaf, while large ones are traditionally made with gevil. By an unrelated compromise between Rashi and Rabbeinu Tam, the casing of another of these objects is placed diagonally. The casing for an object of this kind is frequently inscribed on the back with the name (*) shaddai, which is also formed when using a set of containers for these objects. Traditionally, one touches the casing of one of these objects and then kisses the hand that touched it; those small objects of this kind are encased and attached to doorposts, while a different set of small ones are enclosed in black leather boxes that are bound to the head and right arm. Mezuzot and tefillin contain these objects, larger examples of which are stored in a synagogue's Ark. For 10 points, name these objects from which the Torah is read during prayer.

ANSWER: **scroll**s [or **megillah**; accept **sefer** or **sifrei** or **s'farim**; accept answer describing a **piece of parchment**, or any kind of leaf with **writing** on it; accept more specific answers like **Sefer Torah**; prompt on <u>mezuzah</u> or <u>tefillin</u> by asking "What do those contain?"; prompt on <u>Torah</u> by asking "The Torah is a text; what's the **object** in question?"; do not accept or prompt on "book," "codex," or any other term implying bound matter]

<Religion>

7. A drummer with this last name co-founded the band Dameronia as a tribute to his mentor Tadd Dameron. A swing-era drummer with this surname was known for his early use of brushes and the ride cymbal, as opposed to Gene Krupa's constant kick drum, and made up the All American Rhythm Section alongside guitarist Freddie Green and bassist Walter Page. Another drummer with this surname was replaced by Jimmy Cobb in the (*) Miles Davis Quintet just before the sessions for *Kind of Blue*. A man with this surname was Count Basie's drummer through 1944. Another drummer with this surname played pounding timpani on the track "Psalm" and used a gong hit followed by cymbal washes to open the track "Acknowledgment." That drummer with this surname played on John Coltrane's *My Favorite Things* and *A Love Supreme*. For 10 points, give this surname of drummers "Philly Joe," "Papa Jo," and Elvin.

ANSWER: <u>Jones</u> [accept "Papa" Jo <u>Jones</u>, Philly Joe <u>Jones</u>, or Elvin <u>Jones</u>] <Auditory Arts>

- 8. Marilyn B. Skinner wrote a book weighing the different sources on this woman, who is the subject of a sourcebook compiled by Julie Hejduk. A man adopted the persona of "the famous Caecus, the Blind" to harangue this woman with questions like "why were you so intimate with him as to lend him the gold?" This woman, who helped create the reputation of the beach-town Baia by throwing wild parties in her gardens there, asked Atritinus to prosecute a man who had apparently tried to poison her. The orator of a speech (*) focused on this woman included the vicious aside "I always make that mistake" after referring to her brother as her husband to insinuate that she had committed incest. This wife of Metellus Celer is bitterly attacked in Cicero's defense speech *Pro Caelio*, and is traditionally identified with the Lesbia of Catullus's poetry. For 10 points, name this woman, the similarly-named sister of a Tribune of the Plebs whose murderer Cicero defended in *Pro Milone*. ANSWER: Clodia Pulchra [or Clodia Metelli; prompt on Pulchra or Metelli]

 <European/Other Gustirt>
- 9. A set of conditions for the vanishing cohomology of these objects is given by Hilbert's Theorem 90. When these objects are generated by a single element, explicit constructions of them are provided by Artin–Schreier Theory and Kummer Theory. When these objects are commutative, they are related to objects generated by a root of unity by the (*) Kronecker–Weber theorem. Representations of these objects attached to certain elliptic curves were shown to be modular in Wiles's proof of Fermat's Last Theorem. In characteristic 0, if these objects are finite, the Primitive Element Theorem states that they correspond to "simple" adjunctions of a single element. The algebraic term "solvable" comes from the fact that this object must be solvable for a polynomial to be solvable by radicals. If an extension is normal and separable, then its subfields correspond to the subgroups of—for 10 points—what groups named for a French mathematician?

ANSWER: <u>Galois</u> [gaal-WAH] <u>group</u>s [prompt on partial answer] <0ther Science>

10. In describing an act committed in this building, Delphin M. Delmas popularized the terms "dementia Americana" and "brainstorm." Charles Atlas rose to fame after being dubbed "the world's most perfectly developed man" at a 1922 Physical Culture contest in this building. An action in this building prompted a trial covered by Ada Patterson and other female journalists nicknamed the "sob sisters," who reported on testimony about a "red velvet swing." A man was fatally shot at this building during a rooftop performance of Mam'zelle Champagne in (*) 1906. The destruction of another building during the construction of one iteration of this building led Robert Wagner to found a Landmarks Preservation Commission and kicked off the modern historic preservation movement. The mentally ill millionaire Harry Thaw, the husband of Evelyn Nesbit, sparked the "Trial of the Century" after shooting the architect of the second building of this name, Stanford White. Penn Station was demolished to make way for the current iteration of—for 10 points—what New York sports arena?

ANSWER: Madison Square Garden [or MSG]

<American History>

11. An essay by this thinker centers on the film Sammie and Rosie Get Laid in its discussion of "stylish nihilism." The title concept of one book by this thinker is defined as a "common psychological state" shared by those who "master narratives" have "silenced in the longing for critical voice." This thinker, who wrote a book titled for that concept of "yearning," also authored a book that outlines strategies for fighting the "addiction to lying and denial" that results from a "culture of domination." That book by this thinker argues that (*) teachers have to promote their own well-being through self-actualization in order to practice an "engaged pedagogy" that allows them "to educate as the practice of freedom." In that book, Teaching to Transgress, this thinker dedicated a chapter to Paulo Freire that imagines a dialogue between two versions of herself, one of which has her given name, Gloria Watkins. For 10 points, name this feminist author who used the title of a Sojourner Truth speech for her first book, Ain't I A Woman, published under her doubly-lowercase pen name.

ANSWER: bell **hooks** [accept Gloria Jean **Watkins** before read]

<Social Science>

12. Strikers in this industry set up their headquarters at a tree called the Tree of Knowledge, where a political party's founding manifesto was read the following year. Joseph Holt's memoirs provide an eyewitness account of the horrific lashings ordered by a pioneer of this industry, the "Flogging Parson" Samuel Marsden. Striking workers set up armed camps outside towns in a landmark 1891 strike in this industry, one of whose pioneers commissioned the Greek Revival architect John Verge to design Camden Park on the former site of a "miserable hut" owned by (*) Lachlan Macquarie. Elizabeth Macarthur and her husband John organized the imports that jump-started this industry in a country that became the world's largest supplier of its goods by 1870. This industry is represented by the "jumbuck" grabbed by the "swagman" in Banjo Patterson's "Waltzing Matilda." For 10 points, Australia remains one of the largest exporters of the Merino variety of what fibre?

ANSWER: **wool** industry [or **sheep** industry] <European History>

13. This book attacks Kant's subjective notion of aesthetic awareness by noting that, in metaphorical phrases like "the play of the waves," the word "play" is used to mean "to-and-fro movement that is not tied to any goal." This book is discussed as the leading attempt to set aside epistemology, or do "philosophy without mirrors" in the last chapter of Richard Rorty's *Philosophy and the Mirror of Nature*. This book begins by using an analysis of the concept of *Bildung* or "edification," to explicate a speech by Hermann von Helmholtz distinguishing the natural and (*) human sciences. The third part of this book is devoted to the "linguisticality" of understanding, which it claims is always a form of dialogue. This book advocates using, not discarding, the prejudices of the present to achieve a "historically-effected consciousness" through the "fusion of horizons." For 10 points, name this work of philosophical hermeneutics by Hans-Georg Gadamer.

ANSWER: *Truth and Method* [or *Wahrheit und Methode*] <Philosophy>

14. In a model for the development of these cells, Grossberg and Pilly used an improved instar learning law to prevent category cells from only responding to one sustained input. The discovery of a dorsal-ventral response rate gradient provided evidence for the theory that these cells self-organize using input from ring attractors made from stripe cells in the parasubiculum. In McNaughton's model of the formation of these cells, a tutor "instructs" modules of them to form attractor networks during postnatal development. Like similar cells found in the (*) hippocampus, these cells tend to activate earlier in the theta rhythm as an animal moves, in a phenomenon called theta phase precession. May-Britt and Edvard Moser won the 2014 Nobel in Physiology and Medicine for discovering these cells when they noticed that certain neurons fired as a rat moved through points in a regular hexagonal pattern. For 10 points, name these cells of the entorhinal cortex that, in concert with place cells, encode a mental representation of the physical environment.

ANSWER: **grid** cells [prompt on <u>neuron</u>s before mentioned] <Biology>

15. This composer's collaborations with Peter Sellars include a staged oratorio that combines a Passion Play-style Stations of the Cross narrative with the life of Simone Weil [vay]. This composer prepared for an opera by writing a piece in which a poem is read in French by Julie Parsillé, in Occitan by Jacques Roubaud, and in English by Dawn Upshaw. A mobile staircase-like structure amidst rows of blue LEDs is practically the entire set in Robert Lepage's production of an opera by this composer, whose libretto is by Amin Maalouf. This composer wrote the piece (*) Lonh for solo soprano and electronics to prepare for an opera in which the Pilgrim carries messages between Clémence of Tripoli and the troubadour Jaufré Rudel. In 2016, that work by this composer succeeded Ethel Smyth's Der Wald as the Met's second production of an opera by a woman. Adriana Mater and L'Amour de loin [lah-MOOR duh LWAA] are operas by—for 10 points—what contemporary Finnish composer?

ANSWER: Kaija (Anneli) Saariaho

<Other Fine Arts>

16. An author from this family wrote a chapter styled as a blank verse restoration drama which two evangelical girls watch through a peephole, in a novel that fills ten pages by listing hundreds of titles found in a "Misogynists Library." An author from this family defended a novel as being "no more about oil than *The Godfather* is about olive oil," in response to lackluster reviews of his English translation of Abdelrahman Munif's *Cities of Salt*. The Coptic eunuch Dr. Crucifer helps the title academic fall out of love with his student (*) Isabel Rawsthorne in *Darconville's Cat*, written by a member of this family named Alexander. The explosion of Fat Boy, a giant machine that produces blocks of ice, poisons the entire town of Jeronimo in Honduras in a novel by an author from this family, who is best known for a travelogue about his train journey through Asia. For 10 points, identify this Anglo-American literary family that includes Paul, the author of *The Mosquito Coast* and *The Great Railway Bazaar*, and his documentary filmmaker son Louis.

ANSWER: <u>Theroux</u> [accept Paul <u>Theroux</u> or Louis <u>Theroux</u>] <Long Fiction>

17. Materials that display this behavior and have a prototype phase that is nonpolar at microscopic scales are said to be "displacive," and for such materials the local-field correction causes one optical phonon mode to become "soft" as the temperature approaches the transition point from above, driving the transition to this behavior. The polymer PVDF displays this behavior, which means it also displays two related behaviors that allow it to be used for infrared thermal sensors and transducers. P-E loop tracers can be used to determine if a material exhibits this phenomenon. Materials *stop* exhibiting this behavior above a transition temperature, after which their relative permittivity follows the (*) paramagnetic Curie-Weiss law. Barium titanate is the most studied material with this behavior, which means it is also necessarily piezoelectric and pyroelectric. For 10 points, name this behavior of retaining a characteristic polarization after an applied electric field is turned off, named by analogy with the magnetic behavior of iron.

ANSWER: **ferroelectric**s [prompt on <u>pyroelectric</u>s before "transducers"; prompt on <u>piezoelectric</u>s before "thermal sensors"]

<Physics>

18. Using tabs titled "traversing," "proportioning," "distributing," and "allowing," one can navigate an "invisible" version of this city in an online "sociological opera" focusing on its "oligopticons." Lewis Mumford argued that a redesign of this city facilitated "the display of power" by facilitating an "unswerving line of march" along certain streets. One thinker reflected on a series of events in this city in essays on "symbolic revolution" and "the (*) capture of speech." A book whose subtitle references the "anthropology of supermodernity" opens by following a businessman as he drives the A11 to Roissy [rwah-SEE] in this city and waits in its airport, one of the anonymous spaces its author calls "non-places." This city is the "capital of modernity," according to the title a book by David Harvey that analyzes its nineteenth-century renovation by Baron Haussmann. For 10 points, name this city where Michel de Certeau analyzed the topography of an uprising that spread from the Sorbonne to the Left Bank in May 1968.

ANSWER: <u>Paris</u> (The referenced not mentioned are, in order, Bruno Latour's *Paris: Invisible City*, Marc Augé's *Non-Places*, and David Harvey's *Paris, Capital of Modernity*.) <Mythology/Geography/Current Events>

19. During a campaign against a rebellious nephew whom he had flayed and cooked with rice, this ruler took captive two treasurers of the Kampili kingdom, the brothers Hakka and Bukka, whose founding of a rival state he later foolishly sponsored. This ruler built the Nizamuddin Dargah in honor of a Sufi mystic who had cursed his father, and he likely orchestrated that father's death in a canopy collapse. This ruler destroyed his economy by minting shoddy copper and brass coins and declaring their value equal to those of gold and silver, leading to widespread counterfeiting. This builder of the city of (*) Jahanpanah legendarily ordered his capital's population to move 400 miles to a new capital at Daulatabad, only to move them back a few years later. Ibn Battuta served as a judge under this sultan, who lost holdings in the Deccan to the new Vijayanagara Empire and led a dynasty that succeeded the Khiljis. For 10 points, name this powerful sultan of Delhi from the house of Tughluq. ANSWER: Muhammad bin Tughluq [accept Tughluq until mentioned; accept Fakhr Malik; accept Jauna Khan]

20. A "passenger" preparing to receive one of these objects feels "sunlight on water" "rinsing through his eyes / and dissolving all around him" in a poem by Cathy Song, whose debut collection examines the role that these things played in bringing together her Chinese-American grandfather and her Korean immigrant grandmother. In Sylvia Plath's poem "Tulips," "little smiling hooks" jut out from one of these objects "and catch on" to the speaker's skin. The speaker of a poem from the volume *The Circle Game* notes that in one of these objects, it is "difficult to say where / precisely, or to say / how large or small" (*) she is, but promises that "if you look long enough, / eventually / you will be able to see me." A little girl peruses a set of these things depicting "A dead man slung on a pole" and "the inside of a volcano, / black and full of ashes" in Elizabeth Bishop's "In the Waiting Room." For 10 points, the speaker of an oft-anthologized Margaret Atwood poem describes what type of object that "was taken / the day after" she drowned?

ANSWER: **photograph**s [or **picture**s; prompt on <u>image</u>s; prompt on <u>magazine</u>s; accept "<u>Untouched Photograph</u> of Passenger" or <u>Picture Bride</u> or "<u>This is a Photograph of Me</u>"]
<Poetry>

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Bonuses

- 1. Anthony Smith argued that groups called *ethnie* are the backbone of this system, and developed an approach to studying it called ethnosymbolism. For 10 points each:
- [10] Name this system, which Ernest Gellner tied to the rise of an "anonymous impersonal society" within modernity in works like *Thought and Change*.

ANSWER: <u>nationalism</u> [accept ethno<u>nationalism</u>]

[10] This political scientist argued that "collectivistic" nationalism was invented by the Tudor aristocracy in the controversial book *Nationalism: Five Roads to Modernity*, which analyzes the different paths of nationalism in England, the U.S., France, Russia, and Germany.

ANSWER: Liah Greenfeld

[10] This book by Benedict Anderson argues that nationalism arose because the spread of printing press capitalism allowed citizens to experience "deep, horizontal comradeship" with people who they did not know.

ANSWER: <u>Imagined Communities</u>: Reflections on the Origin and Spread of Nationalism <Social Science>

- 2. In this formulation, the partial time derivative of the Wigner function equals the negative of the Moyal bracket of the Wigner function and the Hamiltonian. For 10 points each:
- [10] Name this formulation of quantum mechanics that uses a quasiprobability distribution to describe a quantum state. ANSWER: **phase space** formulation
- [10] José Enrique Moyal and this physicist independently developed the phase space formulation. This man and van Howe lend their names to the first no-go theorem for quantization.

ANSWER: Hilbrand Johannes "Hip" Groenewold

[10] In the phase space formulation, the Wigner-Weyl transform takes the Moyal bracket to this binary operation and vice versa. This operation on the Hermitian operators A and B returns AB minus BA.

ANSWER: commutator

<Physics>

- 3. During her travels between Heidelberg and Frankfurt, the narrator imagines a version of this scenario involving a widow and a soldier on a train car surrounded by a Sicilian peasant family. For 10 points each:
- [10] Identify this two-word term for an "absolutely pure" anonymous sexual encounter sought by Isabella Wing, the protagonist of Erica Jong's novel *Fear of Flying*.

ANSWER: **zipless fuck** [or **z.f.**]

[10] Isabella finally experiences her "zipless fuck" with Adrian Goodlove at a conference for members of this profession. A chimpanzee with this profession named Zack Busner takes on a human client in the novel *Great Apes*.

ANSWED: psychiatrist for psychopalyst since that's what the conference in *Eagr of Elving* is about: do not

ANSWER: **psychiatrist** [or **psychoanalyst**, since that's what the conference in *Fear of Flying* is about; do not accept or prompt on "psychologist"; prompt on <u>doctor</u>]

[10] For its sexual brashness, Jong's *Fear of Flying* is sometimes described as a female version of this novel about a horny Jewish bachelor who narrates his sexual woes to the psychologist Dr. Spielvogel.

ANSWER: **Portnoy's Complaint** (by Philip Roth)

<Long Fiction>

- 4. Georgette de Montenay incorrectly claimed that her 1567 collection of these artworks was the first to represent Christian themes. For 10 points each:
- [10] Name these works of art popular in early modern Europe, which generally consisted of an image, a motto, and explanatory text.

ANSWER: **emblems** [accept **emblemata** or **emblem** books]

[10] This 1624 emblem book by the Jesuit priest Herman Hugo was the best-known emblem book of the 17th century. It shares its title with a 1675 work in which Philipp Spener first outlined the principles of Pietism.

ANSWER: **Pia Desideria**

[10] While emblems largely fell out of fashion prior to 1800, this 20th century artist collaborated with G.J. Hoogewerff to produce twenty-four of them for a 1931 collection. In a lithograph self-portrait, this artist depicted himself reflected in a sphere held by his own hand.

ANSWER: M(aurits) C(ornelis) Escher

<Other Academic>

- 5. A book titled for this person theorizes that Bertrande accepted the man who took his name due to the importance of having a male spouse. For 10 points each:
- [10] Name this man who dramatically returned from the Italian Wars just as the man impersonating him, Arnaud du Tilh, was about to be acquitted, leading to the latter's conviction and hanging.

ANSWER: Martin **Guerre** [prompt on Martin]

[10] Natalie Zemon Davis, the University of Toronto historian who wrote *The Return of Martin Guerre*, specializes in the study of this era of European history, which falls between the Middle Ages and the Industrial Revolution.

ANSWER: early modern period

[10] Davis's *Women on the Margins* partly profiles this other woman, a 17th century Jewish diarist whose works have been monumental in characterizing the role of women and of the ghetto in early modern Jewish society.

ANSWER: <u>Glückel</u> of Hameln [accept similar pronunciations; accept <u>Glikl</u>; accept <u>Glikl</u> bas Judah Leib] <European History>

- 6. During one instance of this practice, one raises both hands to one's ears, with the palms facing out. For 10 points each:
- [10] Name this practice that's performed at the beginning of each raka, before the recitation of sura al-Fatihah.

ANSWER: saying the *takbir* [accept "saying *allahu akbar*" or similar]

[10] Even before beginning prayer, Muslims are supposed to have *this* state of mind, which is typically translated as "intention."

ANSWER: nivyah

[10] Near the end of each *raka*, Muslims bow in *ruku* and then perform *this* more extreme action, which is called *sujud* or *sajdah*. In *sujud*, this practice is done with the forehead, nose, hands, knees, and feet all touching the ground.

ANSWER: prostration

<Religion>

- 7. This man referred to himself in third person as "the boy" to describe his authorship of several unpublished letters he had wrote to men like his neighbor Judge Learned Hand, during a trial in which his lawyer had to physically restrain his hands from shaking in anger. For 10 points each:
- [10] Name this author, whose lawsuit against the publisher Random House over an intrusive biography by Ian Hamilton inspired Hamilton's eventual book, titled *In Search of* this man.

ANSWER: J.D. **Salinger** [or Jerome David **Salinger**]

[10] Salinger stopped publishing altogether after the critical failure of his story "Hapworth 16, 1924," which is written in the form of a letter from summer camp by this family's eldest son Seymour.

ANSWER: Glass family

[10] In a notorious 1976 article for the *Soho Daily News*, John Calvin Batchelor attempted to account for Salinger's disappearance from the public eye by peddling a conspiracy theory that the writer took this specific radical action to escape the burden of writing about the Glass family.

ANSWER: **he started writing under** the name Thomas **Pynchon** [or **he became** Thomas **Pynchon**; accept answers indicating that **Salinger is the same** person **as** Thomas **Pynchon**; prompt on answers that don't name Pynchon, such as: he used a <u>pseudonym</u>; or he <u>became someone else</u>; or he is the <u>same person</u> as another famous writer] <Miscellaneous Lit>

- 8. During Lent, these chants were followed by a Tract instead of the typical Alleluia. For 10 points each:
- [10] Name these highly melismatic chants exemplified by the Easter chant *Haec dies*. The name of this genre is used metonymously to title the standard collections of chants for the Latin Mass, a tradition that was followed in a set of motet books by William Byrd.

ANSWER: **Graduals** [accept **Graduale** or **Gradualia**]

[10] This composer used the graduals "Sederunt principes" and "Viderunt omnes" as the bases for two massive four-part organa. Anonymous IV claimed that this man "improved" the work of his predecessor, presumably by writing pieces with more parts.

ANSWER: **<u>Pérotin</u>** [or **<u>Perotin</u>**]

[10] The majority of graduals are in the fifth one of *these* pitch systems, although a well-known group named for the chant *Justus ut palma* is in the second one. Renaissance and medieval misinterpretations of Greek music theory have led us to describe a C major scale beginning on D as the "Dorian" one of these things.

ANSWER: <u>mode</u>s <Auditory Arts>

- 9. The bault and Fontaine found that this property of networks stabilizes mutualistic, bipartite pollination networks. For 10 points each:
- [10] Name this property of an ecological network in which aspects with few items interact with items from a large aspect, such as specialist pollinators interacting with plants also pollinated by generalists.

ANSWER: nestedness

[10] Trophic networks are scale free networks, meaning their node degree distribution follows this functional form. In density-independent conditions, bacteria grow at a rate approximating this functional form.

ANSWER: **power** law [or **exponential**]

[10] Borrett showed that the "throughflow" measure of this property can be used to identify keystone species. The eigenvector version of this property quantifies the influence of a node on a network and is the basis of PageRank.

ANSWER: **centrality** [do not accept anything else]

<Other Science>

- 10. Answer the following about the "cultural caudillo" of the Mexican Revolution, José Vasconcelos, for 10 points each.
- [10] While serving as Secretary of Public Education under Álvaro Obregón, Vasconcelos wrote an influential essay that imagines this group founding a utopia called Universopolis on the banks of the Amazon. He used this term to refer to the racially-mixed population of Latin America.

ANSWER: the **cosmic race** [or *la <u>raza cósmica</u>*; prompt on la <u>raza</u> or the <u>race</u>]

[10] In the 1910s, Vasconcelos edited a magazine named for this cause that Francisco Madero had founded to oppose Porforio Diaz. Diaz himself had adopted this principle as the slogan of his campaign against Lerdo de Tejada.

ANSWER: anti-reelectionism

[10] Vasconcelos shaped higher education in Mexico through his role as rector of the National Autonomous University, where less than fifty years later students were targeted in this 1968 massacre that took place just before the 1968 Summer Olympics.

ANSWER: Tlatelolco massacre

<World History>

- 11. Leibniz's principle of pre-established harmony, which "maintains that bodies act as if there were no souls; and souls act as if there were no bodies," is an argument for "parallelism," a form of *this* position. For 10 points each:
- [10] Name this position in the philosophy of mind, whose Cartesian variety is usually called its "substance" form.

ANSWER: <u>dualism</u> [accept <u>substance dualism</u> or <u>Cartesian dualism</u>]

[10] Two answers required. Leibniz defined one of *these* terms as "the internal state of a monad that represents external things" and the other as "consciousness, or the reflective knowledge of that internal state." Leibniz claimed that the Cartesian misunderstanding of these two terms led them to deny that animals have souls.

ANSWER: **perception**

AND: apperception [or awareness]

[10] Leibniz primary argument against materialism in the *Monadology* asks one to imagine "a machine whose construction would enable it to think" and then to enlarge it to the size of one of *these* functional buildings, so that one can enter it and see nothing but parts pushing one another.

ANSWER: windmill

<Philosophy>

- 12. Grimbart warns this character that his castle Wickedhole is going to be attacked by Noble's army, so he leaves his wife Dame Ermilyn there. For 10 points each:
- [10] Name this character who tricks Bruyn into getting stuck in a log when he is summoned to the King's court for trial.

ANSWER: **Reynard** the Fox

[10] Reynard is accused by this wolf of breaking into his house to rape his wife and urinate in his children's eyes, blinding them. Reynard wins a duel against this wolf by also urinating in his eyes.

ANSWER: Isengrim

[10] Reynard tricks one of these animals named Tybalt into castrating a priest. A shape-shifting ogre changes into a mouse and is killed by one of these animals that wears boots and pretends to work for the Marquis of Carabas.

ANSWER: cat (The other cat is Puss-in-Boots.)

<Mythology/Geography/Current Events>

- 13. A character in this play tries to convince Count Lodovico that another character is his long-lost son who had been captured by the Moors. For 10 points each:
- [10] Name this Lope de Vega play in which the Countess Diana's infatuation with her secretary, Teodoro, leads her to prevent him getting married to her maid, Marcella.

ANSWER: <u>Dog in the Manger</u> [accept The <u>Gardener's Dog</u> or <u>El Perro del Hortelano</u>]

[10] Writers in early modern Europe often erroneously attributed the story of the "dog in the manger," which refers to someone who denies other people something they have no use for, to this Ancient Greek fabulist.

ANSWER: Aesop

[10] This seventeenth century French author wrote a play in which Aesop responds to every single question by reciting a fable. He penned a *Counter-critique* of Moliere's *School of Ladies* and attempted to one up Boileau's *Satires* by writing a *Satire of Satires*.

ANSWER: Edmé Boursault

<Drama>

- 14. A 2015 painting by this man replaced Parmigianino's hand with a woman's naked bottom in his *Nude in a Convex Mirror*. For 10 points each:
- [10] Name this contemporary artist known for combining Old Masters styles with pin-up-like depictions of highly sexualized women in works like *Bea Arthur Naked*. Many of this man's explicitly porngraphic paintings feature his wife Rachel Feinstein.

ANSWER: John Currin

[10] Currin's work is often described using *this* German-derived term for tacky, lowbrow art. The work of Ilya Repin was used to exemplify this concept in a Clement Greenberg essay opposing it to the Avant-garde.

ANSWER: kitsch [accept "Avant-garde and Kitsch"]

[10] Currin has often been compared to this other artist, who referenced Baroque and Rococo masterpieces in *Made in Heaven*, a series of depictions of him having sex with his wife.

ANSWER: Jeff(rey) Koons

<Visual Arts>

- 15. To remove moisture from the cake in these filters, gas is run through the cake and then the rotation of the paddle and auger arms is reversed to seal cracks in the cake. For 10 points each:
- [10] Name these devices used in batch systems that consist of a large cylindrical vessel designed to accept an entire discharge from the upstream reactor. These filters are scaled up versions of Buchner funnels for industrial use.

ANSWER: <u>nutsche</u> filter [accept <u>agitated nutsche</u> filter; accept <u>nutsche vacuum</u> filter; accept <u>nutsche pressure</u> filter; accept <u>nutsche</u> filter-dryer; basically accept anything mentioning <u>nutsche</u>]

[10] Although some rely on pressure, most nutsche filters create this extremely low pressure state to force the slurry through the filter media. This state can be created by namesake pumps which remove gas particles from a sealed volume.

ANSWER: vacuum

[10] Wettened filter paper is placed in on the plate of this common laboratory funnel, which uses vacuum suction to filter materials into the flask below.

ANSWER: **Büchner** funnel

<Chemistry>

- 16. Under the Komnenos dynasty, the Opsician and Thracesian were the only significant entities of this kind left in Anatolia. For 10 points each:
- [10] Name these administrative subdivision of the Byzantine Empire. Each of these subdivisions corresponded to one army, but they were used for civilian administration as well.

ANSWER: **theme**s [or **thema**ta]

[10] The Comnenids managed to recover much of those Anatolian themes from the Turks after the Doukids lost this 1071 battle to Alp Arslan. As a result of this battle, the Byzantine Empire permanently lost the interior of Anatolia. ANSWER: Battle of **Manzikert**

[10] The history of the empire's provinces is chronicled in *De Thematibus*, one of the works that this scholar-emperor dedicated to his son Romanos II. This son of Zoe Karbon opsina described the reception of Olga of Kiev in his court in *De Ceremoniis*.

ANSWER: <u>Constantine VII</u> [or <u>Constantine</u> VII <u>Porphyrogenitus</u>; or <u>Constantine</u> VII the <u>Purple-Born</u>; accept <u>Konstantinos</u> in place of "Constantine"; prompt on <u>Constantine</u>, <u>Konstantinos</u>, or <u>Porphyrogenitus</u>] <European History>

- 17. The English Regency style and German Biedermeier style are typically seen as derivatives of this style. For 10 points each:
- [10] Name this late Neoclassical style exemplified by *ormolu*, or gilt-bronze, mantel clocks, often in the form of chariots. In women's fashion, it was characterized by long, loose-fitting white dresses made of very light fabric.
- ANSWER: <u>Empire</u> style [accept <u>Empire</u> silhouette, <u>Empire</u> line, or <u>Empire</u> waist; do not accept "Second Empire"]
- [10] The Empire style was used to furnish the Red and Blue Rooms in *this* neoclassical building, which was designed by James Hoban. It doesn't have a dome, but the porticos of this building were designed by Benjamin Latrobe.

ANSWER: White House

[10] The Blue Room is one of the three rooms that Hoban designed to have *this* shape, which Borromini used in the plan of San Carlo alle Quattro Fontane, and Bernini used for Sant'Andrea al Quirinale. The floors of Jean Nouvel's Torre Agbar take this unusual shape.

ANSWER: **oval** [accept **ellipse** or word forms; prompt on <u>round</u> or synonyms; do not accept or prompt on "circle" or word forms]

<Other Fine Arts>

- 18. The speaker of this poem describes how his "Children's voices, wild with pain" call out "Margaret!" For 10 points each:
- [10] Name this Matthew Arnold poem, whose speaker laments how his wife "look'd up through the clear green sea" and went to pray at a "little grey church," but hasn't returned.

ANSWER: "The Forsaken Merman"

[10] This author's pair of poems "The Mermaid" and "The Merman" were criticized by John Stuart Mill as "actually puerile" and a failure of "creative imagination." The death of Arthur Henry Hallam inspired this author to write a long poem describing nature as "red in tooth and claw."

ANSWER: Alfred, Lord Tennyson

[10] Tennyson responded to this conservative, Edinburgh-based magazine's pseudonymous critic Christopher North's takedown of the collection that contained "The Merman" by writing an epigram to its second edition that calls him "crusty," "rusty," "musty," and "fusty."

ANSWER: <u>Blackwood's</u> (Edinburgh) Magazine [or <u>Maga</u>] <Poetry>

- 19. This condition may result in a second, upward R' [R-prime] deflection in the QRS complex. For 10 points each: [10] Identify this alliteratively-named type of defect in the conduction system of the heart, caused by injury to the fascicles that transmit cardiac action potentials to the Purkinje fibers.
- ANSWER: <u>bundle branch block</u> [or left <u>bundle branch block</u>; or right <u>bundle branch block</u>; or <u>left anterior fascicular block</u>; or <u>left posterior fascicular block</u>; or <u>bifascicular block</u>; or <u>trifascicular block</u>; or tachycardia-dependent <u>bundle branch block</u>; prompt on heart <u>block</u>]
- [10] The presence of a T wave displacement opposite the major deflection of a QRS complex lasting at least 120 milliseconds indicates a type of bundle branch block in which this largest and strongest chamber of the heart contracts later than usual.

ANSWER: left ventricle

[10] An "incomplete" left bundle branch block was clinically reported for the first time by this cardiologist, whose *An Introduction to Electrocardiography* is reportedly the most common book stolen from medical school libraries. He also names a "window" formed by pressing the backs of index fingers together, which is absent in people with clubbed nails.

ANSWER: Leo Schamroth

<Biology>

- 20. This firm was founded by the imaginatively-named "traitorous eight," who were unhappy with their treatment working for William Shockley. For 10 points each:
- [10] Name this semiconductor manufacturer, the first major technology company in what would become Silicon Valley.

ANSWER: Fairchild Semiconductor

[10] These two men entered the semiconductor industry not long after Fairchild, but their namesake company branched out into computers as well. The garage in Palo Alto where they worked has been preserved as a historical site.

ANSWER: William **Hewlett** and David **Packard** [both answers required]

[10] The success of Silicon Valley was augmented by this Department of Defense agency, which funded the development of computer technology for military use. TCP/IP technology was developed in the 1970s by this agency.

ANSWER: Defense <u>Advanced Research Projects Agency</u> [accept <u>ARPA</u> or <u>DARPA</u>] <American History>