

**Chicago Open 2018: The spice must flow**

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**Packet by Murder Instead of Music (Billy Busse, Rob Carson, Andrew Hart and Tejas Raje); and by Ali: Ophir Eats the Soul (Ryan Rosenberg, Marianna Zhang, Clark Smith, and Ophir Lif)**

1. A painting of this object “with trees” began an artist’s so-called “destructive epoque,” during which that artist also painted a “red” version of this object that a contemporary described as “unfinished, whether by design or accident.” Another red version of this object was depicted inside a wheel to illustrate a bright-red text that invokes this “unique” object alongside that wheel and the guillotine. This object is depicted at the very end of a “fold-out” artist’s book whose two meters of text were written in (\*) “Trans-Siberian prose.” Like the church of Saint-Séverin [saa say-vuh-RAA] and a generic series of “windows,” this structure was depicted in an abstracted series of paintings illustrating both the color theories of Michel Eugène Chevreul and the artist’s concept of “simultanism.” That man made his first painting of this landmark in 1909 to celebrate his engagement to Sonia Terk. Robert Delaunay made a series of paintings of—for 10 points—what iron-lattice Parisian landmark?

ANSWER: Eiffel Tower [or Tour Eiffel]

<Visual Arts>

2. It’s not Port of Spain, but John Lennon and Yoko Ono exchanged a bag of their shorn hair for a bloody pair of Muhammad Ali’s shorts in a bizarre publicity stunt intended to raise money for a communal house operated here by Michael X. The editor of a popular gazette in this city, Claudia Jones, founded an annual carnival that has become one of the world’s largest street festivals. This city’s police force was found to be institutionally racist in a 1998 report ordered after the stabbing of Stephen Lawrence at a bus stop. Members of the (\*) “Teddy Boys” subculture attacked this city’s immigrant community in a 1958 riot, and a 1981 riot here prompted the Scarman Report. Louise Bennett coined the term “colonization in reverse” to describe the wave of immigration to this city after the *Empire Windrush* docked here. A country’s Afro-Caribbean population is centered in—for 10 points—what capital city where the Brixton riots and Notting Hill riots occurred?

ANSWER: London

<European/Other History>

3. It's not conservation of energy, but considering the radiation reaction force in the context of this statement creates an apparent paradox that is resolved by noting that a local observer sees the normal Coulomb electric field distorted by tidal forces, plus a small, nearly constant electric field. The MICROSCOPE experiment confirmed this statement to a precision of 10 to the minus 15, while the lunar laser ranging experiment supported it by measuring a value of zero for the Nordtvedt parameter. Deviations from this statement can be quantified by a parameter denoted by either eta or lowercase delta followed by A comma B in parentheses, where A and B are two test materials—that parameter is named for (\*) Loránd Eötvös [URT-vursh], who tested the “weak” form of this statement in 1885 using a torsion balance. For 10 points, what physical “principle” equates gravitational mass and inertial mass, and states that motion in curved spacetime due to gravity is indistinguishable from acceleration in flat spacetime?

ANSWER: equivalence principle [accept the universality of free fall]

<Physics>

4. In a play by this author, a character quotes Georges Bernanos to say that hell is cold in protest of the Professor's selections from the bookshelf. Another of this author's characters is obsessed with her boss, whose name means that she was born during a winter snowstorm. In a play by this author, the Professor and Marina argue about which books they should burn to keep warm during the war. After she gets her first period, Leopoldine is murdered by her cousin, an aficionado of Brandy Alexanders, in a novel by this author. This author of (\*) *Human Rites* wrote about a woman who goes from changing calendar dates to writing a report about the butter industry for Mr. Tenshi before she strips naked while working overnight in accounting for Fubuki Mori at the Yumimoto corporation. In a novel by this author, a series of journalists are too disgusted to interview the elderly, obese author Pretexat Tach, who is dying of the rare Elzenveiverplatz syndrome. For 10 points, name this Belgian author of *Fear and Trembling* and *Hygiene and the Assassin*.

ANSWER: Amélie Nothomb [or Fabienne-Claire Nothomb]

<Long Fiction>

5. A blindfolded assistant located sandpaper circles to demonstrate that two aspects of this behavior are mutually exclusive in Holling's disc equation. The presence of risk-aversion during this process can be explained by the memory window and it is restricted by the search image. Eric Charnov predicted the "giving-up-time" in this process in the (\*) marginal value theorem of it. Kleptoparasitism is an alternative to the "self-" strategy of this behavior. The load size is a function of distance to a breeding site in the "central place" theory of this process which is a special case of the optimal theory of it. When this behavior is done as a group, scroungers can take advantage of producers who locate a resource which maximizes their energy intake in relation to their search time. Crows often use sticks as tools to engage in this behavior. For 10 points, name this animal behavior in which an organism searches for food.

ANSWER: foraging [prompt on finding food or predation or feeding; do not accept "eating"]

<Biology>

6. In the early 20th century, a large repertoire of instrumental music from this country was recorded by James Scott Skinner. This country was the namesake of a 2/4-time dance, three of which were published posthumously in Chopin's Opus 72. It's not Italy, but a dance rhythm from this country consists of an accented short note followed by a longer dotted note. An instrument from this country is tuned in "A" mixolydian, with an extra low G and a very flat C-sharp. A theme and variations form from this country is called (\*) *pibroch* [pib-rock]. The core of this country's fiddle repertoire consists of music for the dance *strathspey*. An instrument from this country usually has two tenor drones and a bass drone on A, with a nine-note chanter. This is the more eastern of two countries whose country dance traditions include the reel and the jig. Ireland shares many musical traditions with—for 10 points—what country whose "pipe bands" are composed of drummers and bagpipes?

ANSWER: Scotland [or Alba; accept Scotch Snap; prompt on United Kingdom or U.K. or Britain, but do not accept or prompt on "England"] (The dance is the *écossaise*.)

<Auditory Arts>

7. The narrator of this book recalls when he descended into a storm cellar “and saw the whole land at night become visible and blue and phosphorescent in the flash of lightning.” The epilogue to this book relates how one the first events in many calendars was a meteor shower whose brilliance woke many people up on a night in 1833. The speaker observes that “Silence is the long approach of noon / Upon the shadow that your name defines / And death this cold, black density of stone,” in the poem titled for a “cemetery” at the title place that concludes this book. This book tells the myth of how the (\*) spider grandmother determined the gender of the sun’s child, which is accompanied by an illustration of the spider by the author’s father Al. This book is divided into sections titled “The Setting Out,” “The Going On,” and “Closing In,” most of which alternate italicized reminiscences of the author’s grandmother Aho with passages about Kiowa myth and history. For 10 points, name this book by N. Scott Momaday that charts the title resettlement of his tribe from Montana to Oklahoma.

ANSWER: *The Way to Rainy Mountain*

<Miscellaneous Lit>

8. In its mission statement, the conservative Thomas B. Fordham Institute claims that “modest progress” has occurred since this document. Gerard Holton, one of the drafters of this document, wrote that “if an unfriendly foreign power had attempted to impose on America” the document’s primary subject, “we might well have viewed it as an act of war.” Seven years after this document was published, a follow-up report produced by Sandia National Laboratories found that many of its conclusions were wrong due to misleading sampling. Created on the instigation of (\*) Terrell Bell, this report claimed that America had “squandered the gains” made after the Sputnik challenge, and that from 1963 to 1980, average SAT verbal scores declined over 50 points. For 10 points, name this report commissioned by the Reagan administration which presented a damning verdict on America’s education system.

ANSWER: *A Nation at Risk: The Imperative for Educational Reform*

<American History>

9. Two rivals merge themselves into a tree that is half wood and half *this* material to hold up the sky when it breaks. A blindfolded god whose head is made of this material holds a decorative broom because the subject he rules over coincides with 120 days of sweeping. An oracle made of this material named Chay Abah, who tells seven tribes to go “beyond the ocean” to find their “hills and plains,” is sometimes used as proof of the historicity of the Book of Mormon. Because he got impatient and shot the sun, the god of the Morning Star is turned into this material and becomes the god of (\*) frost. An item made of this material is used to convince a god that he’s ugly, which upsets him so much that he gets drunk and sleeps with his sister. In some myths, the ruler of Tamoanchan is a butterfly goddess of this material named Itzpapalotl. Itzli personifies this substance, which is used to replace a body part bitten off by the sea monster Cipactli. Tezcatlipoca’s left foot was replaced with—for 10 points—what volcanic material used by Aztec craftsmen?

ANSWER: **obsidian** [prompt on rock, stone, or glass]

<Mythology/Geography/Current Events>

10. A position named for this kind of thing is advocated in a paper that attacks the “salesman's hype” of “constitutionalists”, who hold that humans are this kind of thing without being identical to them. Stephan Blatti's “New Argument” for a view named for these things centres on a *reductio* that would require its Lockean opponents to deny evolutionary theory. The “too-many-thinkers” argument opposes the psychological-continuity view of personal identity in favor of one that links identity to *this* kind of thing. Eric Olson controversially holds that any human being is identical with one of these things. (\*) Mary Midgley's book about *Why* [these things] *Matter* was influenced by her involvement in the Oxford Group. This is the first title noun of a book that includes a recipe for *dal* and introduced the notion of species-ism. For 10 points, Peter Singer wrote a 1975 book about the *Liberation* of what general sort of creature?

ANSWER: animals [accept animalism or Animal Liberation]

<Philosophy>

11. Topotactic condensation of these materials allow them to be mixed and matched to create several new ones in a method abbreviated ADOR. Template molecules used to synthesize these materials are often called “structure-directing agents.” Lowenstein's rule is a constraint on the allowed bonds which can occur in these materials. These materials can form alpha-cage or beta-cage structures, with the former sometimes being called a supercage. One example of these materials commonly used in the (\*) MTG process is comprised of pentasil units and is renowned for its shape selectivity. The structures of these materials are described by “frameworks” denoted by three-letter abbreviations, such as FAU, CHA or MFI. T-O-4 tetrahedra make up the complex structures of these materials, which are used in FCC units to facilitate cracking of petroleum. For 10 points, name these aluminum silicate minerals whose microporous nature makes them useful as molecular sieves, adsorbents, and catalysts.

ANSWER: zeolites

<Chemistry>

12. A remark by this critic inspired the collection *The Jazz Cadence of American Culture* and other works of the so-called “New Jazz Studies” by Robert G. O'Meally. This critic once defined the blues as an “impulse to keep the painful details...of a brutal experience alive...by squeezing from it a near-tragic, near-comic lyricism.” This critic rightly complained that “there is but the bare beginnings of a historiography of jazz” in an essay on his Oklahoma City schoolmate Charlie Christian. This man's first collection includes a vicious review of LeRoi Jones's *Blues People*, as well as attacks on bebop in essays like “The Golden Age, Time Past,” and “On (\*) Bird, Bird-Watching and Jazz,” and a response to Irving Howe called “The World and the Jug.” In the prologue to a novel by this author, its protagonist wishes to buy five phonographs to play Louis Armstrong records at once, in a room lit by 1,369 light bulbs. For 10 points, name this author of *Shadow and Act* and *Invisible Man*.

ANSWER: Ralph (Waldo) Ellison

<Other Academic>

13. This leader executed envoy Agostino Franco de Medina after searching him and finding papers with instructions from Pierre-Victor Malouet to colonize this ruler's territory. This leader's son was transferred to a Parisian orphanage and beaten to death after this leader turned against France. This correspondent of British abolitionist Thomas Clarkson enforced his namesake rural code with a force of imported bodyguards called the Royal Dahomets. This leader used forced labor to build a massive hilltop (\*) fortress called the Citadel and a palace he named Sans-Souci, possibly in reference to a revolutionary whom this leader assassinated after they fought on opposite sides during Leclerc's expedition. After the overthrow of Jean-Jacques Dessalines, this leader took over the northern part of his country while his rival Alexandre Petion controlled the south. For 10 points, name this man who formed the Kingdom of Haiti.

ANSWER: Henri Christophe [or King Henri I]

<World History>

14. The speaker of a twentieth century poem mocks Wordsworth's line "The lyre should animate but not mislead the pen" so as to admonish this other writer to "avoid speech figurative / And set out your matter / As I do, in straight simple phrases." In a letter to René Taupin, a poet admitted his debt to this earlier writer with the mixed-language line "überhaupt ich stamm aus [this man]; pourquoi nier son père?" This earlier author's "trick" is said to be "the showman's booth" because "half [his] dates are out" and he "mix[es] [his] eras" in his "immortal passage" mentioning a "great font." The speaker of that poem wonders if he should take this writer's "whole (\*) bag of tricks" and "quirks and tweeks" before chiding this writer for suggesting that the "modern world / needs such a rag-bag to stuff all its thought in." The second *Canto* opens by asking this writer to "hang it all," for "there can be but the one 'Sordello.'" For 10 points, name this Victorian poet who inspired Ezra Pound's collection *Personae* by writing a series of dramatic monologues.

ANSWER: Robert **Browning**

<Poetry>

15. A thinker with this last name proposed reconceiving triggers as components of tree structures, rather than as sentences, and argued in opposition to Gibson and Wexler's TLA model that error-free parameter-setting is possible because learners can detect "unambiguous triggers." With Lyn Frazier, a thinker with this surname created a model in which substrings of around six words are assigned lexical and phrasal nodes by a "first stage" parser, before being added together by a "second stage" parser to create a full sentence. Janet Dean took this last name after marrying a thinker who argued that the individuation of psychological states occurs independently from (\*) semantic evaluations, a position he termed "methodological solipsism." That thinker with this surname wrote a 1975 book arguing that mental representations are expressed within a language-like syntactic structure. For 10 points, give this last name of the author of *The Modularity of Mind* and *The Language of Thought*, a Rutgers philosopher who died in 2017.

ANSWER: **Fodor** [accept Janet Dean **Fodor** or Jerry **Fodor**]

<Social Science>

16. In a play set during this decade, a man lies to his wife and says he is drinking tea, rather than coffee spiked with whiskey by the maid. A play set during this decade ends with a series of images including the fall of the Berlin Wall and the Twin Towers on 9/11. In a play set during this decade, the protagonist and the angel of death Camae have a pillow fight after the angel uses a rotary phone to call God, who is a black woman and "a fuuuunnnny-ass muthafucka." In a play set during this decade, a waitress who (\*) cuts her legs with razors to discourage sexual advances is distraught by the death of Prophet Samuel. Because a white man had paid for a fence-painting job by giving Hambone a chicken instead of the promised ham, Sterling smashes a window to steal a ham for Hambone's funeral, at the end of a play set during this decade at Memphis's diner in Pittsburgh's Hill District. For 10 points, name this decade, the setting of August Wilson's *Two Trains Running* and of Katori Hall's *The Mountaintop*, which is about the last night of Martin Luther King Jr's life.

ANSWER: the **1960s**

<Drama>

17. A beam in this city is decorated with a motif of small circles inside excised diamonds that references the pattern of a nearby *chikuva*. Peter Garlake's taxonomy of a set of objects from this city places them into different groups depending on whether they depict their subjects with straight or squatting legs. According to one interpretation, those objects from this city are depictions of the *shiri ye denka* believed to use lightning to "stitch together heaven and earth." Thomas Huffman has argued that the double (\*) chevron and the crocodile image that appear on an object from this city reflect its use for divining the presence of witches with the help of royal ancestors. In the 1880s, six sculptures that sit atop monoliths were moved from their original location in this city's Eastern Enclosure, which lies within its Hill Complex. Willi Posselt hacked off the base of an artwork he found in this city and sold it to Cecil Rhodes. A national emblem was inspired by the design of eight soapstone birds found in—for 10 points—what medieval African city?

ANSWER: **Great Zimbabwe** [prompt on partial answer]

<Other Fine Arts>

18. In a 2000 book, this text is viewed as a "metaphor for a conception of nation" that is "imagined not alongside religion but precisely through the precepts of...Christianity." A leading figure in this text was identified with Lenin in a 1924 Lincoln Steffens book titled for that man *in Red*. According to a 1985 book, this text has been subject to two broad political interpretations since the 17th century, a namesake kind of "politics" akin to social democracy and a kind of "messianic politics." This text was called a "paradigm of revolutionary politics" in a Michael (\*) Walzer book on it "and revolution." Henry Highland Garnet's citation of this text in a speech to African slaves at the National Negro Convention of 1843 was analyzed in the last chapter of a book titled *[This text] [exclamation point]* by Eddie Glaude, who claims that this text can explain antebellum black politics and the story of the early black church. For 10 points, name this Old Testament book in which the Hebrew slaves leave Egypt.

ANSWER: Book of **Exodus** [accept *Exodus!* or *Exodus and Revolution* or *Exodus politics*]

<Religion>

19. In a toy model, these phenomena interact with a critical layer and cause it to alternate between absorption and over-reflection according to the Stewartson-Warn-Warn solution. The propagation of these phenomena over large length scales relies on strong restoring-like forces called these phenomena's namesake "quasi-elasticity." Considering a small perturbation to a constant zonal mean flow and applying the conservation of potential vorticity, yields the dispersion relation for one of these disturbances. These disturbances require a non-zero value of the beta parameter, which equals the meridional gradient of the (\*) Coriolis parameter, and their phase speed is always westward relative to the background zonal flow. These disturbances help generate cyclones and anti-cyclones, since they cause undulations in jet streams. For 10 points, name these atmospheric and oceanic waves which result from the rotation of the planet.

ANSWER: **Rossby waves** [accept **planetary waves** before "planet"]

<Other Science>

20. A member of this family had his valet wake him every morning with the words “Get up, monsieur! Remember you have great things to do” and believed that God had revealed a plan for a Council of Newton to him in a dream. A contingent of followers of a man from this family, including Suzanne Volquin and Prosper Enfantin, showed up in Egypt to push modernization schemes on Muhammad Ali. A member of this noble family described a daily regime in which a man was kissed awake by his nurse, then dressed in the presence of his most privileged courtiers. A (\*) duke from this family provided the most extensive source on life at Versailles under Louis XIV with his massive book of *Memoirs*. The namesake movement of a 19th-century member of this family championed the plan for a single industrial class he discussed in his book *The New Christianity*. For 10 points, Auguste Comte served as the secretary of a utopian socialist count from what family?

ANSWER: Saint-Simon

<European/Other History>

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1. In 2018, the CEO of this company sent a letter titled “A Sense of Purpose” to a number of other CEOs, warning them that their companies must benefit “all of their stakeholders” and focus on “long-term growth.” For 10 points each:

[10] Name this investment management company that uses a computerized system called “Aladdin” to handle its six trillion dollars in assets.

ANSWER: **BlackRock** Inc. [accept **BlackRock** Solutions]

[10] The Aladdin system was used to illustrate how technocrats create artificial worlds in *this* BBC filmmaker’s 2016 documentary *HyperNormalisation*. He examined the spread of Freudian ideas in society in 2002’s *The Century of the Self*.

ANSWER: (Kevin) Adam **Curtis**

[10] After discussing Aladdin, *HyperNormalisation* moves to a segment on this businessman’s use of card counters at his Taj Mahal casino to recoup losses to the high-stakes gambler Akio Kashiwagi. In its coverage of the 2010s, the documentary later claims that the inability to fact-check this man’s statements “defeated journalism.”

ANSWER: Donald J(ohn) **Trump**

<Mythology/Geography/Current Events>

2. For 10 points each—answer the following about women who improved on the work of John Rawls:

[10] This Harvard philosopher, whose dissertation Rawls advised, used Rawls’s “concept/conception distinction” to analyse how “the right and the good are [just] names for problems...that spring from our reflective nature” in her book *The Sources of Normativity*.

ANSWER: Christine M(arion) **Korsgaard**

[10] Danielle Allen borrowed from Rawls’s “Two Concepts of Rules” to justify *this* process’s contribution to equality in her Tanner lectures. John Dewey argued that this process is “to social life” what “nutrition and reproduction are to physiological life” in a book titled for *Democracy and* [this thing].

ANSWER: **education** [accept **Democracy and Education**]

[10] Rawls’s strain of liberalism also inspired this thinker’s first book, *Liberal Equality*. In *Democratic Education*, this woman argued that education ought to produce a deliberative character in students, because citizens of a democracy must be able to criticize authority if they are to constitute a “society of sovereign citizens.”

ANSWER: Amy **Gutmann**

<Philosophy>



3. This kind of stochastic process creates exchangeable partitions of the set of integers at each step, with specified probabilities.

[10] Name this kind of process useful in Bayesian nonparametric modeling, which analogizes those partitions to customers choosing tables to sit at in a namesake location.

ANSWER: **Chinese restaurant** process

[10] The Chinese remainder theorem allows one to solve a system of *these* relations, assuming that each of the involved moduli are pairwise coprime. These relations are denoted by three horizontal lines.

ANSWER: linear modular **congruences**

[10] This Chinese-American mathematician proved a conjecture that a compact Kähler manifold whose first Chern class has a definite sign will have a Kähler-Einstein metric of the same Chern class. 6-dimensional examples of such manifolds with vanishing first Chern class are partly named for this man.

ANSWER: Shing-Tung **Yau** [accept Calabi-**Yau** manifold]

<Other Science>

4. During this period, the *Valide Sultan* exerted tremendous power over distribution of public funds, resulting in an increase in public works projects. For 10 points each:

[10] Name this 130-year period of the Ottoman Empire, during which a succession of child or invalid sultans allowed the Imperial Harem to run the government.

ANSWER: **Sultanate of Women**

[10] The Sultanate of Women began with the reign of this woman as Sultan. This woman from Ruthenia became the first concubine in 200 years to marry the Sultan when she wedded Suleiman the Magnificent.

ANSWER: **Roxelana** [or **Hurrem Sultan**, or **Haseki Sultan**]

[10] The last *valide sultan* to rule during the period, Turhan Hatice, paid the salaries of soldiers returning from this conflict in widely-unaccepted “red coins,” causing a mutiny. Turhan transferred her power to the Köprülü family in the midst of this 24-year conflict that Lord Byron called “Troy’s rival.”

ANSWER: **Cretan** War [or War of **Candia**; accept Siege of **Candia**; prompt on Ottoman-**Venetian** War]

<European/Other History>

5. In this novel, a man recalls testing the power of the Dum-Dum bullet by lining up twelve Hindus and killing them all with a single shot. For 10 points each:

[10] Name this horrific novel by Octave Mirbeau, in which the bisexual Englishwoman Clara orgasms upon seeing the brutality of a Chinese prison where a man is forced to walk around after being skinned alive.

ANSWER: *The **Torture Garden*** [or *Le **Jardin des supplices***]

[10] The Romanian libertine Momy Vivescu has sex with corpses and rapes infants in *The Eleven Thousand Rods*, an erotic novel by this author who is better known for a collection of poems shaped like objects such as the Eiffel Tower.

ANSWER: Guillaume **Apollinaire** [or Wilhelm Albert Włodzimierz **Apolinary** Kostrowicki]

[10] Four libertines kidnap, have their way with, and eventually murder several teenagers in this French nobleman’s archetypal fucked-up novel *The 120 Days of Sodom*.

ANSWER: Marquise de **Sade** [or Donatien Alphonse **François**]

<Long Fiction>

6. This man passed the Padlock Act to allow the closing of buildings used to propagate “communism,” and was slapped with a fine for revoking Frank Roncarelli’s liquor license in a landmark supreme court case. For 10 points each:

[10] Name this leader nicknamed “le Chef,” whose government also certified around 20,000 healthy orphans as mentally ill and shipped them to asylums in order to receive federal subsidies.

ANSWER: Maurice **Duplessis**

[10] The 1959 death of Quebec premier Maurice Duplessis ended the era called “The Great Darkness” and ushered in this period of change, during which Quebec saw increased secularization and improvements in healthcare.

ANSWER: **Quiet Revolution**

[10] The so-called “first shot of the Quiet Revolution” was a 1949 strike by miners of this commodity, which Duplessis opposed and which Pierre Trudeau covered as a young journalist.

ANSWER: **asbestos**

<European/Other History>

7. This condition, which commonly arises as a complication of a fracture, has symptoms identified by the mnemonic “the five Ps.” For 10 points each:

[10] Name this condition in which intense pressure builds up in one section of the body, such as an arm or leg, constricting the ability of blood to adequately supply the tissues with oxygen and nutrients.

ANSWER: **compartment** syndrome

[10] Aside from amputation, the main surgical treatment for compartment syndrome is to cut this type of connective tissue that encloses muscles or other organs.

ANSWER: **fascia** [FASH-uh]

[10] Untreated compartment syndrome may lead to this form of unprogrammed cell death. This type of tissue death turns the skin from red to purple to black in an extremely gross “fasciitis” [fu-“SHY”-diss] following infection by “flesh-eating bacteria.”

ANSWER: **necrosis** [accept word forms, such as **necrotic**]

<Biology>

8. Unlike his cantatas, Bach’s works in this genre continued to be performed regularly after his death, making them his only large ensemble works with a continuous performance tradition. For 10 points each:

[10] Name this genre of Bach’s five-part *Jesu, meine Freude* [YAY-zoo “my”-nuh FROY-duh]. Bach used a double choir and orchestra for infamously difficult works in this genre like *Singet dem Herrn ein neues Lied* [ZIN-gut daym “hair”-un eyn NOY-ess leed] and *Der Geist hilft unser Schwachheit auf* [“dare” GEYST hilft oon-zuh SHVAKH-“height” owff].

ANSWER: **motets** [or **motetten**]

[10] Bach’s successors kept his motets in the repertoire of a Leipzig church named for *this* saint. Bach’s job title in Leipzig was named for this saint.

ANSWER: Saint **Thomas** [accept **Thomaskirche** or **Thomaskantor**]

[10] Bach also used double choir in the Osanna of *this* piece, his largest-scale choral work in Latin. This piece’s “Gratias agimus tibi” is derived from the earlier cantata *Wir danken dir, Gott, wir danken dir* [veer dahn-kun deer, gawtt, veer dahn-kun deer].

ANSWER: **Mass in B minor** [or BWV **232**; or **H-moll Messe**; prompt on just **Mass**]

<Auditory Arts>

9. In *The Canterbury Tales*, the Knight uses this rhetorical device when he claims that it would take too long to describe something, and in explaining why, proceeds to describe it in detail. For 10 points each:

[10] Name this literary technique common in medieval literature, in which something is emphasized by pretending to pass over it.

ANSWER: **occupatio** [or **praeteritio**, or **occultatio**; accept **paralipsis** or **apophasis**]

[10] This character in *The Canterbury Tales* tries to imitate the aforementioned use of *occupatio* by his father, the Knight, in order to emphasize the beauty of the Mongolian princess Canacee, but is egregiously bad at it, apologizing at one point that “it lyth nat in my tonge.”

ANSWER: the **Squire**

[10] By using *occupatio*, Chaucer was following this medieval grammarian’s advice for achieving “high style” in poetry, contained in books such as the *Poetria nova*.

ANSWER: Geoffrey of **Vinsauf**

<Miscellaneous Lit>

10. This term is often compared to the Algonquin *Manitu*. For 10 points each:

[10] Give this Lakota term used to refer to the sacred, supernatural, or holy, which is often applied to medicine men. This word is paired with “*tanka*” or “Great” in the Lakota name of the so-called “Great Spirit.”

ANSWER: **wakan** [accept **wakan tanka**]

[10] This Oglala man, widely considered a *wicasa wakan*, converted to Catholicism in 1904 before describing traditional Lakota religious practices to John Neihardt, who turned those conversations into a book titled [*This Man*] *Speaks*.

ANSWER: **Black Elk** [or **Hehaka Sapa**; accept **Black Elk Speaks**]

[10] In Black Elk’s vision, he saw a host of Beings named for *this* natural phenomenon. Many Native American cultures believe in an enormous bird that controls this phenomenon.

ANSWER: **thunder** [accept **Thunderbird**]

<Religion>

11. This poet narrates a section of Callimachus’ *Aetia* in which he complains that a general named Phoenix has taken the stones from his tomb to build a defensive tower. For 10 points each:

[10] Name this member of the “nine lyric poets,” who used a self-invented mnemonic technique to recall the exact seating of Skopas’ men in a building that collapsed after Skopas told this poet to ask Polydeuces for money instead of him.

ANSWER: **Simonides** of Ceos

[10] Simonides was one of the best-known ancient composers of these choral hymns, which were sung and danced in honor of Dionysus.

ANSWER: **dithyrambs** [or **dithyrambos**]

[10] Unlike those of Simonides, several dithyrambs by this fierce rival of his have survived. He’s best known for writing “victory odes” that commemorated accomplishments at the Olympics.

ANSWER: **Pindaros**

<Poetry>

12. In February 2018, it was revealed that Palantir had secretly been providing the City of New Orleans with the technology to perform a “predictive” form of this activity that often uses “heat lists.” For 10 points each:

[10] Name this activity. James Q. Wilson and George Kelling developed a “broken windows” theory of how to use this activity to create an atmosphere of order, which was later implemented by Bill Bratton in New York.

ANSWER: **policing** [or predictive **policing** or broken windows **policing**; accept word forms; prompt on dealing with crime or arresting]

[10] This Jamaican-born thinker examined the rise of “anticipatory policing” against communities of color in the UK in his 1978 book *Policing the Crisis*, co-authored with several of his students at the Birmingham School of Cultural Studies.

ANSWER: Stuart **Hall**

[10] Specific term required. In *Policing the Crisis*, Hall argues that a moral panic arose surrounding *this* type of crime, which he claims was “unambiguously assigned as a black crime” starting in the early 1970s.

ANSWER: **mugging** [accept word forms, but do not accept or prompt on other terms]

<Social Science>

13. This character’s *cavatina* “Qual fiamma aveva nel guardo” is interrupted by high trills in the violins and flutes to transition to her *cabaletta*, “Stridono lassù.” For 10 points each:

[10] Name this character, who is stabbed by her husband before he declares “The comedy is finished!”

ANSWER: **Nedda**

[10] Throughout the first half of Nedda’s “Stridono lassù,” the first harp is instructed to play arpeggios using *this* technique, which later became codified as a kind of two-handed trill. This technique is often used to play quiet enharmonic tremolos with two hands.

ANSWER: **bisbigliando** [beez-beel-YAHN-doh]

[10] At the end of Act 1, Nedda’s husband Canio sings this tenor aria, in which he tells himself to “put on your costume” and “laugh clown, at your broken love!”

ANSWER: “**Vesti la giubba**” [VEH-stee lah JYOO bah]

<Other Fine Arts>

14. Some productions of this work feature a black-robed “Auditor” who stands stage left and doesn’t speak throughout the performance. For 10 points each:

[10] Name this dramatic monologue in which an actress recounts a traumatic event that happened to her in a field.

Its staging calls for a pitch-black space in which a spotlight focuses on only the actress’ mouth, which is elevated to a height of eight feet above the stage.

ANSWER: ***Not I***

[10] In his other theatrical work by the author of *Not I*, the title character spends his birthday listening to a 39-year-old version of himself describe his bowel problems due to eating too many bananas and enjoy saying the word “spool.”

ANSWER: ***Krapp’s Last Tape***

[10] This author of *Not I* and *Krapp’s Last Tape* also wrote a play in which the character Winnie is buried in a mound throughout the performance, *Happy Days*.

ANSWER: Samuel **Beckett**

<Drama>

15. While Maxwell's equations are fun individually, they can be combined to yield even cooler results. For 10 points each:

[10] Taking the divergence of both sides of Ampere's law, then substituting Gauss's law, yields one of these general equations that describe the transport of some quantity that is not created or destroyed. They equate the time derivative of a "density" to the divergence of a "flux."

ANSWER: **continuity** equations or **conservation** laws [accept **hyperbolic** equations or conservation laws; prompt on **wave** equations]

[10] In free space, Maxwell's equations can be reduced to wave equations for the electric and magnetic fields by using an identity from vector calculus regarding this specific combination of operations.

ANSWER: **curl of the curl** [accept **del cross del cross**; do not accept or prompt on partial answers]

[10] Both Gauss's law of magnetism and Faraday's law can be represented by stating that the covariant derivative of this quantity equals zero. This antisymmetric pseudotensor is symbolized G, and its non-vanishing zeroth components are the components of the magnetic field.

ANSWER: **dual** electromagnetic **field** strength tensor [prompt on "dual tensor"; do not accept or prompt on "field tensor" or "electromagnetic field tensor" or "Faraday tensor" or "Maxwell tensor" or "Maxwell bivector"]

<Physics>

16. The London National Gallery houses this man's richly colored painting of *Canon Bernardinus de Salviatis with Three Saints*, which was probably once the left wing of an altarpiece. For 10 points each:

[10] Name this painter known for his soft colors and calm compositions, as in his Rouen altarpiece of the *Virgo inter Virgines*. He also made a triptych altarpiece of the Baptism around 1505.

ANSWER: Gerard **David**

[10] Gerard David took over from Hans Memling as the leading painter in *this* city. Jan van Eyck and his student Petrus Christus both worked in this city, unlike Rogier van der Weyden [ro-GEER fon der VYE-den].

ANSWER: **Bruges** [broozh]

[10] Two wings of a *Nativity* altarpiece by Gerard David have been celebrated as the earliest surviving Netherlandish works in this genre of painting. Christopher S. Wood's first book describes Albrecht Altdorfer's influence on the "Origins" of this genre, which was the specialty of Claude Lorrain and Jacob van Ruisdael

[ROWSS-dahl].

ANSWER: **landscapes** [prompt on **seascapes** by asking "Can you be less specific?"]

<Visual Arts>

17. These compounds are supported on a Wang resin as groups protected by Boc or Fmoc are added to them. For 10 points each:

[10] Name these biological compounds that can be synthesized in the laboratory via a "solid phase" method pioneered by Robert Merrifield.

ANSWER: **peptides** [or **proteins**]

[10] Merrifield's solid-phase peptide synthesis was a precursor to this field of chemistry, which uses techniques like the teabag method and the split and mix synthesis to quickly generate extremely large libraries of peptides or other molecules.

ANSWER: **combinatorial** chemistry

[10] The multipin method for combinatorial synthesis makes a different compound in each of this many wells on a standard-sized microtiter plate. The standard microtiter plate one size larger than the one with this many wells has 384 wells.

ANSWER: **96**

<Chemistry>

18. A recently published book by Zora Neale Hurston featuring interviews with Cudjo Lewis, the last survivor of the Middle Passage, is titled for this word. For 10 points each:

[10] Give this term for the buildings which temporarily held captives in West Africa before they were transported across the Atlantic.

ANSWER: **barracoon** [accept *Barracoon: The Story of the Last "Black Cargo"*]

[10] Cudjo Lewis was one of the captives of the Kingdom of Dahomey who arrived at this city on the *Clotilda*, the last-known American slave ship, in 1860, and founded nearby Africatown. In 1864, the Union navy launched an attack on Franklin Buchanan's fleet and three forts outside this city.

ANSWER: **Mobile**

[10] A more aggressive plan for stopping, searching, and seizing illegal slave ships was drawn up by a treaty named for British ambassador Richard Lyons and this Secretary of State in 1862.

ANSWER: William H. **Seward**

<American History>

19. The fact that these structures do not disappear despite differential rotation rates is referred to as the "winding problem," which is resolved by density wave theory. For 10 points each:

[10] Name these structures, two of which emerge from the ends of a central "bar" in structures like NGC 1300 ["NGC thirteen hundred"].

ANSWER: spiral **arms** [of galaxies]

[10] Density wave theory makes a distinction between the orbital speeds of individual stars and this angular speed at which the density wave, and thus the spiral arm, propagates.

ANSWER: **pattern** speed

[10] Density waves may grow out of initial perturbations which prevent the galactic disc from having this property. A system has this property if all quantities do not depend on the angular coordinate in cylindrical coordinates.

ANSWER: **axisymmetric** [or word forms like **axisymmetry**; prompt on "(cylindrical) symmetry" or "rotational symmetry"]

<Other>

20. Leaders of this movement were incorrectly linked to the murder of ambassador Vladimir Rolović in Sweden, which had been committed by one of their nation's fascist terrorist cells. For 10 points each:

[10] Name this nationalistic revival movement of the late 1960s and '70s, of which Savka Dabčević-Kučar was a major leader. Josip Tito's government arrested many of the intellectuals who signed a "Declaration on the... Language" during this movement.

ANSWER: **Croatian Spring**

[10] Josip Tito undermined another instance of university-based unrest in Yugoslavia by siding with activists who declared a "Red University of Karl Marx" at the university in this city, Yugoslavia's capital.

ANSWER: **Belgrade**

[10] The philosophy departments of the Universities of Zagreb and Belgrade at the time were dominated by this Yugoslavian strain of Marxism, against which Tito himself published a counter-criticism. This movement organized a popular summer school on the island of Korčula.

ANSWER: **Praxis** School

<European/Other History>