

CMST II

Packet 14

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1. **The main theme of this symphony’s final movement is previewed in Locrian mode during its third movement trio section. Like an earlier symphony by the same composer, that third movement foregrounds a quarter, quarter, dotted eighth, sixteenth rhythm inspired by the *Ländler* (“LENT-luh”). This piece’s first movement recapitulation follows a development over a chromatically falling bassline, and that movement includes an expositional coda quoting the composer’s insertion aria (*) “Un bacio di mano.” This piece’s final movement was probably inspired by Michael Haydn’s 28th Symphony. The first movement of this symphony’s main theme begins with the root before twice ascending diatonically in triplets from the dominant back up to the root. In this symphony’s finale, the C-D-F-E theme joins previous motifs in a five-voice cut time fugato. With a mythic nickname probably given by Johann Peter Salomon—for 10 points—give this final symphony by Mozart.**
ANSWER: Mozart’s **Symphony** No. **41** in C major, K. 551 [or the **Jupiter** Symphony]

<JM - Classical Music>

This sonnet sequence was inspired by the poet’s relationship with Penelope Devereux. For 10 points each:

[10m] In the first of these sonnets, the author is told by his muse “Fool ... look in thy heart, and write.” The speaker of another sonnet from this sequence notes “With how sad steps, O Moon, thou climb’st the skies,” comparing the moon to an unrequited lover.

ANSWER: ***Astrophil and Stella*** (by Sir Philip Sidney)

[10h] This word names a sonnet cycle that includes the frequently anthologized “Since there’s no help, come let us kiss and part.” A collection of nine eclogues by that same poet, who also wrote the *Poly-Olbion*, is also titled for this word.

ANSWER: **ideas** [accept ***Ideas Mirrour*** or ***Idea: The Shepherd’s Garland***]

[10e] This man addressed several mysterious figures such as Mr. W. H., the Fair Youth, and the Dark Lady in several of his sonnets. He also wrote the sonnet “Shall I compare thee to a summer’s day?”

ANSWER: William **Shakespeare**

<EL - Literature: British>

2. **This phenomenon’s relationship to a policy-dictated quantity was the subject of one of the first observed aberrations from the classical real-nominal dichotomy, the Mundell-Tobin effect. Bill Mitchell and Warren Moseler argued for a job guarantee so that a quantity named for this phenomenon would be effectively replaced by a “buffer employment ratio.” Modern Monetary Theory asserts that this phenomenon is the only real limit on governmental spending and money creation, and predicts that it rises significantly with (*) full employment. In standard models, unemployment below a point named for the “non-accelerating” form of this phenomenon causes it to rise. This phenomenon, which appears as the quantity π and is subtracted from the nominal interest rate to give the real one in the Fisher equation, occurs when aggregate demand exceeds supply in its “demand-pull” form. For 10 points, name this economic phenomenon in which the value of money decreases and prices rise over time.**

ANSWER: **inflation** [accept **inflation** rate; accept **rising prices** or **decreasing value of money** and equivalents before mention; reject “deflation”] (The Mitchell/Moseler idea is NAIBER, or “non-accelerating inflation buffer employment ratio.”)

<JM - Hard Social Science: Economics>

Itinerant religious bards called *debtera* offer white magic services like exorcisms in this country, including for its Jewish population, whose variation of the religion is called *Hayman*. For 10 points each:

[10e] Name this African country, the original home of an ancient Jewish community known as Beta Israel.

ANSWER: (Federal Democratic Republic of) **Ethiopia** [or (*Ye-*)**Ītyōpp̄yā** (*Fēdēralawī Dēmokirasīyawī Rīpebilīk*); or (*Rippabliikii Federaalawaa Dimokraatawaa*) **Itiyoophiyaa**; or (*Fēdēralawī Dēmokirasīyawī Rīpebiliki*) **Ītiyop'iyā**; or **Itiyoppiya** (*Federaalak Demokratik Rippeblikih*)]

[10m] Beta Israel and the Ethiopian Orthodox Church use this ancient language for their scriptures and liturgies. Before the discoveries at Qumran, manuscripts in this Semitic language were the oldest Hebrew Bible sources.

ANSWER: **Ge'ez** [prompt on Classical Ethiopic]

[10h] Despite exclusion from the Right of Return law, many members of this sub-group of Beta Israel have emigrated to Israel. This group arose after the Anglican missionary Henry Aaron Stern converted many of them to Christianity, possibly by force.

ANSWER: **Falash Mura**

<JM - Religion>

3. **Entropy production equals this quantity times the difference between the work and the change in free energy, as a corollary of the Crooks fluctuation theorem. Average energy equals the negative derivative of the log of the partition function with respect to this quantity in the canonical ensemble. For systems in thermal equilibrium, the density matrix is proportional to the negative exponential of this quantity times the Hamiltonian. The fundamental nature of this quantity is often argued for using a system with bounded internal energy in a state where (*) heat flows in a counterintuitive manner. This quantity equals the derivative of entropy with respect to energy, and its reciprocal is thermal energy. This quantity is often considered more fundamental than its inverse, since it is continuous even in the case of population inverted systems, where its inverse “impossibly” goes below absolute zero. For 10 points, name this quantity in statistical mechanics that equals the reciprocal of Boltzmann’s constant times temperature.**

ANSWER: thermodynamic **beta** [or **coldness**; accept **one over temperature** or **one over kT** or **one over kB T** or **one over Boltzmann’s constant times temperature** until “Boltzmann’s”; accept any of the previous with “reciprocal” replacing “one over” until “Boltzmann’s”; reject “temperature”]

<DE - Science: Physics>

During her first congressional race, this big-hat-loving politician used the slogan “This woman’s place is in the House—the House of Representatives.” For 10 points each:

[10m] Name this feminist politician nicknamed “Battling Bella” who represented Albany in the House for much of the 1970s. She narrowly lost the 1976 New York Senate primary to Daniel Patrick Moynihan.

ANSWER: (“Battling”) Bella (Savitzky) **Abzug**

[10e] Abzug founded the National Women’s Political Caucus with Bretty Freidan, Shirley Chisholm, and this co-founder of *Ms.* magazine. This second-wave feminist wrote the article “If Men Could Menstruate.”

ANSWER: Gloria (Marie) **Steinem**

[10h] At Steinem’s urging, this man ran a losing 1969 campaign for Mayor of New York on a platform of NYC statehood. His earlier 1960 mayoral run was derailed when he stabbed his wife at the campaign launch party.

ANSWER: Norman (Kingsley) **Mailer** [or Nachem Malech **Mailer**]

<CK - History: American>

4. In a poem, this character is angered by some of his children's "arrogant maleness," and gives some of his other sons their title as a "reproachful nickname, because he thought / they had overreached themselves." After birthing children "with hearts of stone" and "strong as the dickens," this character's wife bears their "youngest, an arch-deceiver" who "hated his lecherous father." Some of this figure's children were "in every respect" "just like the gods" save for an extra (*) "bone in their foreheads' middle." In that poem, this figure is described as "a perfect fit on all sides, / And a firm foundation for the blessed gods" after a figure that becomes his consort produces him asexually. This figure's wife devised "a really wicked trick" and "created a new mineral, gray flint, and formed / A huge sickle" with which her son "pruned" his father's "genitals." For 10 points, name this deity who in Hesiod's *Theogony* is overthrown by his wife Gaia and son Cronus, the father of the Titans.

ANSWER: Uranus

<JM - Literature: European (Mythology)>

Description Acceptable. This project forms the backdrop of a film alternately titled *In Expectation* or for "Rain Clouds," which follows an affair between a lonely signalman and a widowed hotel clerk. For 10 points each:

[10h] Name this project, the impact of which is depicted in the film *Still Life*. The female protagonist of the same director's *Ash Is Purest White* observes this project for the first time after being released from prison.

ANSWER: construction of the Three Gorges Dam [accept Sānxiá Dàbà in place of Three Gorges Dam; accept answers mentioning the flooding or relocation caused by the Three Gorges Dam; prompt on flooding, relocation, or construction of a dam] (The first film is usually titled *Rain Clouds over Wushan*.)

[10e] Despite its critical depiction of Three Gorges-era flooding and relocation, *Still Life* dodged censorship in this country, whose Fifth Generation films include *Red Sorghum* and *Hero*.

ANSWER: China [or People's Republic of China; or PRC; or Zhongguo; do not accept or prompt on "Republic of China"]

[10m] Like *Still Life*, most of Jia Zhangke's films star his wife, an actress with this surname. Fern loses her job in Empire, Nevada in a film by a director with this surname that included the real people Bob Wells and Swankie.

ANSWER: Zhao [accept Zhao Tao or Chloé Zhao] (The second film is *Nomadland*.)

<TM - Arts: Film>

5. Critics of this dynasty met in the "House of Forgetting," a rogue Mason lodge founded by Mīrzā Malkum Khān. Hājji Ebrāhīm Kalāntar's defection to this dynasty made it the *first* where the ancestrally Jewish Qavām family were kingmakers. This dynasty's critics fixated on a marble slide that the harem allegedly used to join rulers' baths. Amir Kabir instituted reforms under this dynasty, whose army upgrades by Prince 'Abbās Mīrzā were abandoned after the Treaty of Turkmenchay. This successor to the (*) Zand dynasty moved the capital to Tehran. Under this dynasty, Baron von Reuter was granted rail monopolies, and protests against British tobacco monopolies expanded into the 1905 Constitutional Revolution. These persecutors of the Bāb movement suppressed that revolution with their Cossack Brigade, a member of which later overthrew them with British support. For 10 points, name this 19th and early 20th century Iranian dynasty replaced by the Pahlavis.

ANSWER: Qājār Dynasty

<JG - History: World>

The third collaboration by these authors introduced the notion of the “republic of property” and discussed “altermodernity,” where political resistance takes place in the “constitution of alternatives.” For 10 points each:
[10h] Give this duo of Marxist theorists who argued that globalization has rendered post-modern political authority “total” in a trilogy consisting of *Empire*, *Multitude*, and *Commonwealth*.

ANSWER: Michael **Hardt** and Antonio (“Toni”) **Negri** [accept in either order; prompt on partial answers]

[10m] Hardt and Negri use this term to describe the weaponization of life and the body in acts like suicidal terrorism, in contrast to a similarly named concept of “power.”

ANSWER: **biopolitics** [prompt on **politics**; reject “biopower”]

[10e] The terms “biopower” and “biopolitics” were popularized by this thinker, who used them in *The Will to Knowledge* and *The History of Sexuality*. This theorist discussed the panopticon in *Discipline and Punish*.

ANSWER: (Paul-)Michel **Foucault** (“foo-KOH”)

<JM - Thought: Soft Social Science>

6. **A precursor to this organization operated a recruiting office on Atlantic Avenue in Brooklyn. A critical document concerning this group is known simply as “the Golden Chain.” This organization created the woman-oriented magazine called “The Majestic Woman” in addition to the online publication “Inspire.” With American support, the “Awakening” movement led local opposition to this group, which was allegedly funded by the Benevolence International Foundation. The telegenic death metal musician Adam (*) Gadhafi was accused of being a member of this organization, as was Jose Padilla. This group was the target of the missile attack on the al-Shifa Pharmaceutical Factory in Khartoum. Gina Haspel ordered the destruction of tapes of the interrogation of a member of this group in Thailand. After a failed attack on the *USS Sullivan*, this group bombed the *USS Cole* stationed off Yemen. Khalid Sheikh Mohammad is a member of—for 10 points—what terrorist organization founded by Osama bin Laden?**

ANSWER: al-**Qaeda** [or al-**Qā'idah**]

<VA - History: American>

Calcium looping repeatedly interconverts between calcium carbonate and calcium oxide to separate this gas from other industrial emissions. For 10 points each:

[10e] Name this gas that, after being captured or scrubbed, is injected into rocks to permanently prevent it from getting into the atmosphere and exacerbating global warming.

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

[10h] Basically the only industrially used carbon dioxide scrubbing technology relies on these amine derivatives to remove carbon dioxide from power plant exhaust fumes. These compounds are also used to remove both carbon dioxide and hydrogen sulfide during oil refining.

ANSWER: **ethanolamines** [accept mono**ethanolamine** or di**ethanolamine**]

[10m] Another promising technology for carbon scrubbing involves using these extremely porous coordination polymers to directly adsorb carbon. These zeolite-inspired compounds can also be used for hydrogen storage.

ANSWER: **metal organic frameworks** [accept **MOFs**; prompt on **organic frameworks**]

<SS - Science: Chemistry>

7. *Description acceptable.* A thinker used Mancur Olson and Richard Zeckhauser's paper on "An Economic Theory of" these situations to develop a "Neorealist First Cut" theory of them. Stephen Walt analyzed these situations in terms of "balance of threat" in a 1987 book titled for their "Origins." When these situations would increase the likelihood of conflict, or when actors delay pursuing them to avoid negative outcomes, dilemmas respectively called "Chain Ganging" or "Buck-Passing" arise. Glenn Snyder argued that the (*) security dilemma motivates actors to pursue these situations, and discussed their interplay with "concerts" in a book on their *Politics*. The phenomenon of powerful states pushing smaller ones into these arrangements is pejoratively termed "Finlandization," and forming them with powerful opponents is called "bandwagoning." For 10 points, give these arrangements made between states for mutual support in conflicts.

ANSWER: **alliances** [accept international, inter-state, military, defensive, diplomatic, and/or political **alliances**, etc.; accept another description of mutual agreements between states that doesn't use the word "**alliance**" if it is clearly correct, prompting on bare answers like **pact**, **treaty**, etc. by asking "which form what arrangements?"]

<JM - Thought: Soft Social Science>

In *Season of Migration to the North*, Mustafa Sa'eed woos Ann Hammond by reciting this poet and gives a lecture peppered with lies in which he calls this poet superior to Omar Khayyam. For 10 points each:

[10h] Name this Arabic poet of the 8th and 9th centuries who refined the genre of *khamriyya*, or wine poetry. This student of Walibah al-Hubab was also known for his homoerotic poems.

ANSWER: Abu **Nuwas** [or Abū **Nuwās** al-Ḥasan ibn Hānī al-Ḥakamī; or Abū **Nuwās** al-Salamī]

[10m] One of Abu Nuwas's best-known wine poems urges the addressee, "Don't cry for" a woman of this name. The third of Nizami's "Five Jewels" is about the doomed love between a woman of this name and a poet nicknamed "Majnun."

ANSWER: **Layla** (Nizami's poem is *Layla and Majnun*.)

[10e] Abu Nuwas appears as a court poet of Harun al-Rashid in this collection, which includes a story in which a man uses the magic phrase "Open Sesame" to enter a den of thieves.

ANSWER: *One **Thousand and One Nights*** [or *The **Arabian Nights***; or *The One **Thousand and One Arabian Nights***; or *The Book of the **Thousand Nights and a Night***; or *Kitab **alf laylah wa-laylah***]

<TM - Literature: World>

8. A poem from this collection laments how "my many fresh and fragrant mistresses" are "lost to all music now" before quoting Horace by commanding, "Knock at a star with my exalted head." This collection, which includes the poem "The Bad Season Makes The Poet Sad," contains nineteen poems describing one woman, with subjects such as her "hair bundled up in a golden net," the "candor of her teeth," and the "liquefaction of her clothes." The lines "A lawn about the shoulders thrown / Into a fine distraction" are included in a poem in this collection that describes being (*) "bewitched" by the "wild civility" of a "careless shoe-string." Another woman who is recurrently addressed throughout this collection is told to "get up, get up, for shame," which has led to scholarly debate over whether both Julia and Corinna were lovers of the author. This collection, which includes "Delight in Disorder," also includes a poem that begins, "Gather ye rosebuds while ye may." "To the Virgins, to Make Much of Time" is included in—for 10 points—what collection of 1200 *carpe diem* poems by Robert Herrick?

ANSWER: **Hesperides**

<WJ - Literature: British>

Alexander Grothendieck's ("GROW-tuhn-dick's") notion of abelian categories, in which this statement is always valid, are central to homological algebra, which studies things like chain complexes. For 10 points each:

[10h] Name this lemma used to construct long exact sequences, where the image of one morphism is the kernel of the next. Like the similar but more specialized zig-zag lemma, it is named for the shape of the relevant diagrams.

ANSWER: **snake** lemma

[10e] In algebra, the term "abelian" is used to denote structures whose binary operations have this property. This property holds if the order of the operands does not affect the result.

ANSWER: **commutative** property [accept word forms or equivalents such as "the operations **commute**"]

[10m] In calculus, the Abelian theorems equate the limit of a convergent sequence to the result of any process of this type. Emile Borel devised a type of this process that is useful for analyzing divergences.

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

<JM - Science: Mathematics>

9. **Hyperdispensationalist theology radically argues that this common religious practice shouldn't be performed in modern times since it isn't taught in the Epistles. The Sixth Ecumenical Council inspired the Eastern Christian practice of giving a cross necklace worn for the rest of one's life after undergoing this practice. Because of the doctrine that this practice is "one," Eastern Orthodox converts who already did this in a Trinitarian church are instead anointed with oil on the ankles and forehead in a "Chrismation" ceremony. This is the central rite of (*) Mandaeanism, which teaches that a figure with an epithet derived from this practice was the last true prophet. Many Protestant denominations restrict this practice to mature, consenting participants, sometimes called the "believer's" form of this rite, including a "Southern" church named for it. For 10 points, name this Christian ritual that an ascetic named John performed on Jesus in the Jordan River.**

ANSWER: **baptism** [or *báptisma*; accept word forms like "being/getting **baptized**;" accept **christening**; prompt on "converting to Christianity/Catholicism/Orthodoxy/etc." before the word "converts" by asking "with what specific ritual?"; accept "believers' **baptism**" and "adult/infant/child/etc. **baptism**"]

<JM - Religion>

Michael Ray Charles parodied racist caricatures like Aunt Jemima in a satirical ad campaign for a made-up product with this name. For 10 points each:

[10h] Give this name of a Sargent Johnson sculpture that depicts a woman sheltering two babies who clutch at her legs. In an 1867 sculpture with this name, a woman kneels in prayer as a man raises a wrist with a broken shackle.

ANSWER: ***Forever Free***

[10e] The latter artist, Edmonia Lewis, is best-known for sculpting *The Death of Cleopatra* for the first of these events in the US. Harriet Hosmer exhibited her sculpture *Queen Isabella* at an 1893 one of these events in Chicago.

ANSWER: **world's fair** [or **world fair**; or **universal exhibition**; or World **Expo**; accept World's **Columbian Exposition**; prompt on **Centennial** by asking "what other type of event was that?"]

[10m] Lewis gained early success with her portrait medallions of this man, whose "Last Moments" are shown in a Thomas Hovenden painting. John Steuart Curry's *Tragic Prelude* includes a gigantic bearded depiction of this man, whose "Legend" titles a series by Jacob Lawrence.

ANSWER: John **Brown**

<TM - Arts: Painting and Sculpture>

10. **NMR spectra obtained from an analyte with this property were used by Karol Jackowski to make the first direct measurements of absolute magnetic shielding. Analytes with this property used for calibration can be found in the GROB test mix. A Wheatstone bridge is used in a non-destructive scheme to detect analytes with this property known as a katharometer, which is an alternative to a system that measures a current that two electrodes produce when ions hit a hydrogen (*) flame. NMR of samples with this property typically have extremely broad peaks due to short relaxation times. Analytes in this phase are heated before flowing through a coiled column with helium acting as the mobile phase in a form of chromatography often used in tandem with mass spec. For 10 points, name this phase of matter possessed by analytes in a form of chromatography abbreviated “GC.”**

ANSWER: **gaseous** [accept any answer making it clear that analytes are in the **gas** phase]

<SS - Science: Chemistry>

Answer some questions about King George I of Greece, for 10 points each:

[10e] Before becoming king of Greece, George was a member of this kingdom’s royal family. George’s father was forced to cede Schleswig-Holstein in the 1860s.

ANSWER: Kingdom of **Denmark** [or Kongeriget **Danmark**]

[10m] Greek foreign policy under George I was dominated by this irredentist idea that advocated incorporating the then-extant Greek populations in Thrace and the Turkish coast into one “great” Greek state.

ANSWER: **Megáli** Idea

[10h] George was brought to power in part by this prime minister and Greek War of Independence admiral. This native of Psaras would tell himself “Konstanti, you are about to die” before routinely surviving suicide missions like single-handedly blowing up the Turkish flagship at the Massacre of Chios.

ANSWER: Konstantínos **Kanáris**

<JM - History: European>

11. **Along with pottery, brightly colored maze-like designs in this medium are the signature artworks of the Shipibo-Conibo people of the western Amazon. Surprisingly modern-looking works in this medium are produced in the *Kaitag* region of Dagestan. The widespread *boteh* motif originates with works in this medium, which includes a tradition of “rough” works called *Gabbeh*. Unfinished materials in this medium are called “greige goods,” while ones sold ready for use in crafting are called “piece goods.” Along with another called *ikat*, a traditional method of applying pigments to this medium using (*) wax to coat the negative space before dyeing is called *batik*, originating in Indonesia. The paisley pattern originated with Persian works made of these materials, which include a celebrated type made from goat wool named for its origins in Kashmir. For 10 points, give this artistic medium, the traditional materials used for making rugs and clothing.**

ANSWER: **textiles** [or **fabrics**; accept other material synonyms like **cloth**, **thread**, **fibres**, etc.; accept verb equivalents like **weaving**, **spinning**, **knitting**, or **embroidering/embroidery**; before mention, prompt on answers like **clothes/clothing**, **fashion**, **tapestry**, **dresses**, **rugs**, or **blankets** by asking “which are usually made of what materials?”; prompt on raw materials like **wool**, **cotton**, **silk**, etc. by asking “which are prepared into what materials?”; reject “leather,” “hides,” or equivalents]

<JM - Arts: Misc>

‘Alī Sharī‘atī (“shuh-REE-uh-tee”) contrasted a “committed” or “guided” form of this system, prioritizing moral ambitions and exemplars thereof, with the mere “choice of stew” found in capitalist and colonial societies. For 10 points each:

[10e] Give this system which some Islamists reject as a Western import that violates Allāh’s sovereignty by enabling the citizenry to choose or enact policies that violate *sharī‘a*.

ANSWER: (liberal) **democracy** [accept word forms; accept any words for similar voting-, representation-, or popular will-based political systems like **republic** or **electoralism**; prompt on **voting** and word forms]

[10m] Sayyid Qutb (“SIGH-yid KOOT-ub”) initially argued that democracy was inherently Islamic, but later declared it to be part of this state of social and moral decay central to his thought. This Arabic term for the pre-Islamic era literally means “age of ignorance.”

ANSWER: al-**jāhiliyyah** (“JEH-hih-LEE-(yuh)”)

[10h] Defining democracy as constraint of human sovereignty by a higher law, this influential 20th-century South Asian Islamist and founder of Jamaat-e-Islami described his ideal *sharī‘a*-adherent society as a “theo-democracy.”

ANSWER: Syed Abū’l-A‘lā al-**Mawdūdī** (“MOW-doo-dee”)

<JG - Thought: Other Philosophy>

- HALFTIME -

12. **James Franklin used concepts from this text to develop a “Realist Philosophy of Mathematics” in a 2014 book titled in part for this work’s author. A Timothy Clarke article tries to work out whether the “ancient puzzle” addressed early in this text is concerned with “coming into existence” or “coming to be such-and-such.” This work introduces a crucial set of conceptual distinctions with the example of a bronze statue. This book argues that time and space are characteristically (*) “continuous” because they can be indefinitely divided in a section refuting Zeno’s paradoxes, and distinguishes “material,” “efficient,” “agent,” and “final” types of causes. The final section of this text claims that the impossibility of actual infinities means that change in the world must have begun with a Prime Mover. For 10 points, name this work about change and motion in nature by Aristotle.**
- ANSWER: **Physics** [or **Phusike akroasis**; or **Physica**; or **Naturales Auscultationes**; reject “(Aristotle’s) *Metaphysics*”]

<JM - Thought: Other Philosophy>

Overexpression of transmembrane examples of these proteins is linked to poor prognosis of cancers like adenocarcinomas, thereby making inhibitors of them popular drug targets. For 10 points each:

[10h] Name this class of proteins whose secretion is coordinated by the protein MARCKS. A subtype of these proteins including one termed “5AC” is closely related to von Willebrand Factor.

ANSWER: **mucins** [accept **MUCs**]

[10e] Mucins undergo this process many times in their PTS domain, thereby giving them gel-like properties. This process is either O-linked or N-linked depending on if a hydroxyl or a nitrogen in a side chain is targeted.

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

[10m] An acetylated form of this amino acid can thin mucus by depolymerizing mucins. Acetylated forms of this amino acid are used in treatment of paracetamol overdose by replenishing glutathione reserves.

ANSWER: N-acetyl**cysteine** [prompt on **NAC**]

<SS - Science: Biology>

13. Austrian forces were once expelled from this city by a rock-throwing youth called “Balilla.” Merchants from this city ran one colony with the best-known example of the *maona* (“mah-OH-nuh”) tax-farming scheme. A leader who refused this city’s top position to instead serve as “perpetual censor” consolidated its aristocratic factions into the *Alberghi* class. In the early 15th century, this city-state consolidated its debt by founding the Bank of St. George. In 1543, accidental shelling by this city’s own navy forced it to rebuild its (*) *Lanterna*, which was for centuries the tallest lighthouse on earth. A territory ruled by this city was attacked in 1553 by a joint Franco-Ottoman force under Turgut Reis. An admiral from this city led the naval force that Hayreddin Barbarossa defeated in the Battle of Preveza. One of this city’s territories rebelled under Pasquale Paoli. For 10 points, name this home of Andrea Doria, a Ligurian port city and archrival of Venice.

ANSWER: **Genoa** [or **Genova**; or **Zêna**; accept Republic of **Genoa**, *Repubblica di Genova*, *Res Publica Ianuensis*, or *(Serenissima) Repùbrica de Zêna*]

<JM - History: European>

The central motif of this 1932 song, written by Vernon Duke with lyrics by Yip Harburg for the musical *Walk a Little Faster*, goes (read slowly) short D D D, B, long C. For 10 points each:

[10h] Name this jazz standard. In its most famous rendition, the orchestra plays a seemingly final chord before the leader shouts “one more time” and the band plays a final roaring coda.

ANSWER: “**April in Paris**”

[10e] Along with his “One O’Clock Jump,” “April in Paris” was the signature song of this swing-era bandleader of the “Barons of Rhythm.” Like Duke Ellington, this pianist was known by a regal-sounding nickname.

ANSWER: (William) “Count” **Basie** [prompt on “the Count”]

[10m] Basie’s band was based in this city, where he got his start playing for Bennie Moten’s orchestra. Along with its signature hard-swinging big bands, Charlie Parker began developing bebop in this city as his career got going.

ANSWER: **Kansas City**, Missouri

<JM - Arts: Jazz>

14. A highly empirical two-part model of this phenomenon developed by JHW Unger predicts a 15 decibel per decade increase in its power spectrum at frequencies over 20 kilohertz. The ratio of a related phenomenon to this one is given by the PSACR, which defines the amount of “head room” a cable has. The strength of this phenomenon can be measured in terms of a “power sum” and is often classified by whether it is measured at the “near end” or “far end.” With increasing signal frequency, the ratio between (*) attenuation and this phenomenon rises, increasing signal integrity. In this phenomenon, an aggressor component can possess a mutual capacitance or inductance with a victim component. Mitigation of this phenomenon can be accomplished by using ground planes or physically separating the offending sources. For 10 points, name this phenomenon where signal from one circuit component unintentionally communicates with another circuit component.

ANSWER: **crossstalk** [or **cross coupling**; accept signal **interference**]

<JL - Science: Other>

In a 1979 exchange in the *Village Voice*, Stanley Crouch accused this other critic of “Dick and Jane Black nationalism” while addressing him as “Papa Doc.” For 10 points each:

[10m] Name this jazz and blues critic who briefly headed the record label Jihad. His music criticism includes the volumes *Black Music* and *Blues People*.

ANSWER: Amiri **Baraka** [or LeRoi **Jones**]

[10e] Like Bob Kaufman, Amiri Baraka turned to jazz poetry while part of this literary movement. The especially musical associations of its name were promoted by member Jack Kerouac.

ANSWER: **Beat** Generation

[10h] Perhaps the most outsize influence on Baraka’s Afrocentrism was this founder of the philosophy of *Kawaida* and its *Nguzo Saba*, under whom the former LeRoi Jones adopted the name Imamu Amear Baraka.

ANSWER: Maulana Ndabezitha **Karenga** [previously Ron **Karenga**; accept Ronald McKinley **Everett**] (The *Nguzo Saba* are commemorated on Kwanzaa, which was introduced by Karenga.)

<CS - Literature: American>

15. **One of four buildings with this name in Tbilisi honors Hovhannes Tumanyan, Armenia’s national poet, and was mostly destroyed in the 1930s on Lavrentiy Beria’s orders. Another building with this name was constructed under the sponsorship of King John V as the Church of Santa Engrácia. A never-built building with this name in Moscow would have contained Lenin’s embalmed body. The existence of diurnal motion was demonstrated by Léon (*) Foucault using a pendulum suspended from the ceiling of a building with this name. The remains of Kings Victor Emmanuel II and Umberto I are housed in Rome’s building of this name, which has the world’s largest unreinforced concrete dome. Originally the Church of Sainte Genevieve, Paris’s building of this name was converted to a “temple of the nation” during the French Revolution, and holds the remains of Voltaire and Rousseau. For 10 points, give this name of several mausoleums in Europe which literally means “all gods.”**

ANSWER: **Pantheon(s)**

<DE - Geography>

The Cambridge Platonist John Norris was a notable advocate of this thinker’s theories, developing and defending them in his *Practical Discourses*. For 10 points each:

[10m] Name this 17th century philosopher who thought we are only able to perceive and relate to the external world through the mediation of pre-established ideas in the divine mind, which he called “Vision in God.”

ANSWER: Nicolas **Malebranche** (“mahl-BRAHNSH”)

[10h] In *A Discourse Concerning the Love of God*, this thinker argued against Norris’s occasionalist idea that God is the only thing deserving of love because he is the sole cause of good things, arguing instead that love of God can be rationally derived from the created world.

ANSWER: Lady Damaris **Masham** [or Damaris, Lady **Masham**; or Damaris **Cudworth**]

[10e] Norris and Malebranche developed their account of “Vision in God” from this early Christian thinker’s idea of “divine illumination.” This 5th-century bishop narrated his conversion from Manichaeism in the *Confessions*.

ANSWER: (Saint) **Augustine** (of Hippo)

<JM - Thought: Philosophy>

16. Isaac Levitan’s painting *Plyos* centers a number of these objects with the title distant town on their right. The Cornish artist Alfred Wallis mainly painted these objects in naïve-style landscapes. In the 1930s, the Russian opera singer Maxim Karolik rediscovered the works of a pioneering Luminist who primarily painted these things, the Hudson River School artist Fitz Hugh Lane. These man-made objects appear in the vast majority of Ivan (*) Aivazovsky’s paintings. Five of these objects appear at varying distances in *The Stages of Life* by Caspar David Friedrich. Eleven men exhaustedly drag one of these objects *on the Volga* in an Ilya Repin (“RYEH-peen”) work. The poem “Fallacies of Hope” accompanied a painting partly subtitled *Typhon coming on* that depicted one of these objects called the *Zong*. For 10 points, name these objects, one of which J.M.W. Turner depicted with enslaved people thrown overboard.

ANSWER: **boats** [accept clear equivalents like **ships**, **watercraft**, **sailboats**, etc.; accept **barges** after the word “dragging;” accept slave **ship**s after the word “Fallacies;” compassionately prompt on **waves**, (bodies of) **water**, **ports**, and so on before mention by asking “which are accompanied by what man-made objects?”]

<JM - Arts: Painting and Sculpture>

Often used to analyze language chronology, the Leipzig-Jakarta List, a more rigorous attempt at the Swadesh List, enumerates the 100 words most resistant to undergoing this linguistic process. For 10 points each:

[10m] Name this linguistic process in which a language horizontally adopts vocabulary from another language, unlike cognates which share a common ancestry.

ANSWER: **borrowing** [or **borrowed** words/vocabulary/terms/etc.; or **loanwords**, **loaning**, **loaned** words/vocabulary/terms/etc.; or **donation**, **donated** words/vocabulary/terms/etc.; accept **donor** languages/terms/etc.; reject “translation”]

[10e] In this form of linguistic borrowing, a word takes an extra meaning from another language, like how French uses the word *souris* (“soo-REE”) for computer mice following English. This term is contrasted with “syntax.”

ANSWER: **semantics** [accept **semantic** borrowing/loaning/donation]

[10h] Unlike loanwords, these terms—such as “flea market” or “brainwashing”—are introduced to a language by directly translating words or phrases from another, even if the relation between the term and its meaning gets lost.

ANSWER: **calques** (“KALKS”) [accept **loan translation** (both words required)]

<JM - Hard Social Science: Linguistics>

17. In a novel by this author, the protagonist remarks that when his boss tells religious stories, he “would sense a vague warning in his manner: it could happen to you.” That protagonist of a novel by this author runs away to study engineering after dropping a bucket down a well onto his boss’s head, thinking him dead. The title character narrates the epilogue of that novel by this author, claiming her illegitimate son with that Oedipus-obsessed protagonist did not intend to kill him. In another novel by this author, a character agrees to act in a televised production of *The (*) Spanish Tragedy* without her head-scarf to secure her lover’s freedom from nationalists. In that novel by this author, after finding out that police killed Hande and Blue, İpek chooses to visit Kadife instead of the protagonist, who began writing poetry again after a mystical experience while investigating suicides in Kars. For 10 points, name this Turkish author of *The Red-Haired Woman* and *Snow*.

ANSWER: (Ferit) Orhan **Pamuk**

<JM - Literature: World>

These people used a light galley called the *lembus*, and won the Battle of Paxos by tricking navies from Corcyra and the Achaean League into getting their rams stuck in sets of four ships lashed together. For 10 points each:

[10m] Name these people who allied with Philip V under Scerdilaidas but flipped to Rome. Their queen apologized for her husband Agron's acts, but *not* for her own, like allegedly having the Roman envoy Coruncanius killed at sea.

ANSWER: **Illyrians** [accept word forms; accept **Ardiaei** or **Labeatae/Labeatan** Dynasty; prompt on **pirates** and equivalents] (The queen Teuta's half-apology was reported by Appian.)

[10h] The losers at Paxos also included this Greek confederacy that, like their Illyrian frenemies, had a reputation for piracy. This alliance based at Thermos consistently backed Rome against Macedon, including at Cynoscephalae.

ANSWER: **Aetolian** League [accept word forms of the demonym]

[10e] The Aetolian League later backed Antiochus III's anti-Roman invasion of Greece, which failed at this pass. A Spartan fighting at this pass under Leonidas snarkily thanked enemy archers for letting them "fight in the shade."

ANSWER: **Thermopylae** [accept the **Hot Gates**]

<JG - History: Ancient/Other>

18. **The German Empire used reparations from the Franco-Prussian War to back the implementation of this policy, which subsequently caused resistance to this policy from other European countries to collapse. Reintroduction of this policy indirectly caused the 1926 general strike in the United Kingdom, where this policy was first implemented *de facto* in 1717 after an error by Isaac Newton. A 1959 study by Bloomfield found that this policy's "rules of the game" were violated in the majority of years and countries considered, contradicting (*) Keynes's account of this policy's effects. Japan, Russia, and India held nearly two-thirds of foreign currency reserves to implement this policy during its heyday. This policy ended in the United States after the 1971 Nixon Shock, which also doomed the Bretton Woods system. Under this policy, price indices in major economies declined between 35 and 50 percent before an 1896 discovery in the Klondike. William Jennings Bryan opposed—for 10 points—what policy in a speech named for a "Cross" of its namesake metal?**

ANSWER: **gold** standard [accept any answer mentioning currency backed by **gold** reserves or **convertibility to gold**; prompt on **Bretton Woods** system until mentioned]

<DE - History: Ancient/Other>

In "The Retreat from the Word," George Steiner argues that this novel's four sections are "figurative" of the movements of a string quartet. For 10 points each:

[10h] Name this novel divided in the sections "Water—The Arrival," "Fire—The Descent," "Earth—The Expectation," and "Air—The Homecoming." Erich Heller called it a "problematical" masterpiece for depicting a poet in Brundisium who orders his life's work to be destroyed.

ANSWER: *The **Death of Virgil*** [or *Der **Tod des Vergil***]

[10e] Herman Broch's *The Death of Virgil* is viewed as a response to this regime, under which students burned books by Broch and other Jewish writers in the Bebelplatz.

ANSWER: **Nazi** Germany [or **Third Reich**; or obvious equivalents]

[10m] Broch wrote a book on the time of this other author, who wrote a letter in which Lord Chandos swears off writing due to the insufficiencies of language. Nonetheless, he went on to write libretti for *Elektra*, *Ariadne auf Naxos*, and other operas by Richard Strauss.

ANSWER: Hugo von **Hofmannsthal** [or Hugo Laurenz August Hofmann von **Hofmannsthal**; accept *Hugo von **Hofmannsthal** and His Time* or ***Hofmannsthal** und seine Zeit*]

<CS - Literature: European>

19. *Description acceptable.* **Population dynamics of a programme with this goal are the subject of the Knipling model, which solves for the CRR in terms of residual fertility. Inoculation via mass release of *Pediobius foveolatus* is a method of achieving this goal that requires precise phenological knowledge. A bacterial genus potentially useful for this aim can induce parthenogenesis or cytoplasmic incompatibility after host colonization. Methoprene and other IGRs used for this aim function as mimics of juvenile hormone. At least 20% of all targets for this aim can be infected by a genus of bacteria that heavily (*) skews a population's sex ratio towards females and is called *Wolbachia*. Irradiating large numbers of males and releasing them into the wild is a "sterile technique" used to achieve this goal. Puddle control is an example of a program for his goal that is used to limit incidence of diseases spread by one of its targets, whose saliva can harbor *Plasmodium*. Spread of dengue fever and malaria can be prevented by, for 10 points, what type of pest management strategy targeting a class of six-legged arthropods?**

ANSWER: **insect control** [or **insect management**; accept answers about **killing insects** or similar; accept **control** or **management** of specific **insects** like **mosquitoes**; prompt on **pest management** or **control**]

<SS - Science: Biology>

Due to Spanish influence, residents of this territory use the word "camp" to refer to everything outside of its capital of Stanley. For 10 points each:

[10e] Name this British territory off the coast of South America contentiously claimed by Argentina, a group of subarctic islands whose economy developed around wool production and ship resupplying.

ANSWER: **Falkland Islands** [or **Falklands**; accept *Islas Malvinas*]

[10m] The first settlement on the Falklands was founded by this French explorer, who also named a large island east of Papua New Guinea after himself. After several conflicts often involving Panguna Mine, that island successfully voted to become independent in 2019, which is scheduled to take effect in 2027.

ANSWER: Louis-Antoine, Comte de **Bougainville**

[10h] Bougainville also tried to name parts of this Pacific island nation after himself. The American libertarian Phoenix Foundation funded the Nagriamel Movement's secession attempts after its independence under Walter Lini.

ANSWER: Republic of **Vanuatu**

<JM - History: World>

20. **The Balkan tradition of Ganga music features these performers improvising variations on a shared theme, exemplifying heterophony. A genre of popular music centered on these performers distinctively employs a just-intoned harmonic seventh chord to align overtones. In one folk tradition, performers of this type use the *sygyt* technique. In Carnatic music, the term *gāyaki* refers to the emulation of this style of performance, and performers of this type practice their technique with complex pieces called "varnams." These performers are central to a tradition dominated by the Ali Khan family, including performers Fateh and Nusrat, the Sufi style of (*) Qawwali music. Traditions like Tarana, Khyal, and Dhrupada are central to this type of performance in Hindustani classical music. A form of this musical practice based on manipulating overtones is found in Tuvan music. For 10 points, give these musicians who are the sole performers in a *capella* works.**

ANSWER: **vocalists** [accept any answers prefaced with the genres "barbershop," "Qawwali," "Hindustani (Classical Music)," "Tarana," "Khyal," "Dhrupada," "Carnatic," "Tuvan," or "Ganga;" or **singers**; or **singing**; accept **voice** or **vocals**; accept throat **singing**] (The harmonic seventh chord is used in Barbershop music.)

<JM - Arts: Other Music>

In a traditional Cambodian dance, this character receives a crystal ball for her ingenuity. For 10 points each:
[10h] Name this disciple of Lok Ta Moni Eysei, the central character in a *robam* dance. In a Tamil-Buddhist epic, this goddess provides a title character of the same name with a magic bowl.

ANSWER: **Manimekhalai** [or **Moni Mekhala**]

[10m] This ax-wielding character jealously plots to steal Moni Mekhala's crystal ball. In Bharatanatyam dances, an extended right arm represents this avatar of Vishnu, who wiped out the Kshatriyas twenty-one times.

ANSWER: **Parashurama** [or **Rama Jamadagnya**; or **Rama Bhargava**; accept **Ream Eyso**, **Reamsor**, or **Ramasura**; prompt on **Rama**]

[10e] The Robam Moni Mekhala narrates the mythic origins of rain, and is thus usually performed around the start of this seasonal wind-reversal phenomenon that produces 80% of yearly precipitation in South Asia.

ANSWER: **monsoons**

<VA - Geography (Mythology)>

21. **James Tully argued that this work doesn't advocate capitalism since it presents only a public-serving "custodianship." In this work, the author adopts the idea of competing drives toward "natural sociability" and "self-love" from Samuel von Pufendorf. This work contends that taking seriously another writer's Biblically-derived theory of monarchy implies Adam's heir should be king of the world. This work argues that fatherhood alone provides no theological or philosophical basis for power over children. Some read this work's chapter on (*) slavery as an apology for the author's earlier role in the *Fundamental Constitutions of Carolina*. This work theorizes that property ownership and value come from improvement and labor, respectively. Though this work's first essay is a line-by-line repudiation of Robert Filmer's *Patriarcha*, the second argues for natural rights and social contract theory. For 10 points, name this work of political philosophy by John Locke.**

ANSWER: ***Two Treatises of Government*** [or Locke's (Two) ***Treatises of Government***; accept answers of (Locke's) **First** or **Second Treatise** (of Government); or ***Two Treatises of Government: In the Former, The False Principles, and Foundation of Sir Robert Filmer, and His Followers, Are Detected and Overthrown. The Latter Is an Essay Concerning The True Original, Extent, and End of Civil Government***]

<JM - Thought: Philosophy>

Answer the following about the Ramsauer–Townsend effect, a non-classical effect discovered before quantum theory, for 10 points each:

[10e] The Ramsauer–Townsend effect can be derived as a low-energy limit of this process in one dimension. This process solved using the Born approximation involves an incoming wave being deflected by a localized potential.

ANSWER: quantum **scattering**

[10m] The Ramsauer–Townsend effect first confused its namesakes when it was observed in the scattering between electrons and this group of elements. Complexes between halides and these elements are used to make excimer lasers.

ANSWER: **noble gases** [or group **18**]

[10h] In an undergrad physics lab, the Ramsauer–Townsend effect is measured using one of these devices. These devices used as high-power switches inspired the alternate name of silicon-controlled rectifiers, which is also acceptable.

ANSWER: **thyratrons** [accept **thyristors**]

<AF - Science: Physics>

22. In its discussion of prayer, this essay quotes Caratach from John Fletcher's play *Bonduca* by asserting that "hidden meaning lies in our endeavors; our valors are our best gods." Earlier, this essay uses the epilogue to *Honest Man's Fortune* as one of its epigraphs. Newton Arvin popularized the notion that *Moby-Dick* repudiates the ideas of this essay, especially through the story of Captain Ahab. This essay's author declares, "If I am the Devil's child, I will live then from the Devil." This second entry in the author's first series of *Essays* bemoans that society functions like a (*) joint-stock company and states, "To be great is to be misunderstood." Walt Whitman's lines "Do I contradict myself? / Very well then I contradict myself" echoes this essay's view on the matter, as expressed in its declaration that "a foolish consistency is the hobgoblin of little minds." For 10 points, name this Ralph Waldo Emerson essay that extols individualism.

ANSWER: "**Self-Reliance**"

<CS - Literature: American>

This composer's "Song for Athene," which sets lyrics by the nun Mother Thekla as a tribute to the title actress who died in a car accident, brought him fame when it was played during Princess Diana's funeral. For 10 points each:

[10h] Name this British composer and Eastern Orthodox convert best known for compositions like the Blake-inspired piece *The Lamb*, the cello-centered *The Protecting Veil*, and his early cantata *The Whale*.

ANSWER: (Sir) John (Kenneth) **Taverner**

[10m] Despite not coming from an Orthodox country, Leoš Janáček's ("LEH-osh YAH-naht-schek's") pan-Slavic ideals motivated him to compose this liturgical piece in Old Church Slavonic. Its name comes from the precursor of the modern Cyrillic alphabet.

ANSWER: *The **Glagolitic Mass*** [or ***Glagolská mše***; or ***Mša glagolskaja***; or ***Missa Glagolitica***; or the ***Slavonic Mass***]

[10e] This composer used melodies from the Russian Orthodox liturgy to compose his *Russian Easter Festival Overture*. He is also known for the *Scheherezade* suite.

ANSWER: Nikolai (Andreyevich) **Rimsky-Korsakov**

<JM - Arts: Classical Music>