CMST II
Packet 1
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Note to moderators:

These packets must be played in order. This set is intended to be played with 20 point powers and 0 point "negs" upon incorrect answers. Follow the instructions of tournament director(s) as to whether this will be done.

1. **Raya Dunayevskaya advanced a "humanist" version of this thinker's theories by analyzing American history in a work on this thinker's School "*and Freedom: from 1776 Until Today.*" Ernest Mandel argued that this thinker should be understood as theorizing a "parametric determinism." Christopher Henning discussed the replacement of social theory with moral philosophy across "*100 Years of Misreadings*" in a book on "*Philosophy after*" this thinker. An "1859 Preface" by this thinker explicates a theory that (*)** G.A. Cohen called the "Development Thesis." Jacques Derrida introduced his concept of "hauntology" in a work titled for "*Specters of*" this thinker. This thinker endeavored to explain why the title dictator was supported by the working class in "The Eighteenth Brumaire of Louis Napoleon," exemplifying his theory of historical materialism. For 10 points, name this author of *Das Kapital*.
ANSWER: Karl (Heinrich) **Marx**
<JM - Thought: Philosophy>

In a bizarre campaign stunt supporting this policy, Ross Perot tried to spot certain activities from a helicopter and offered to pay the legal fees of anybody who reported them. For 10 points each:
[10e] Name this broad policy program focused on harsh punishments for the production, trade, and use of illegal substances. The DEA was created under Nixon to enforce this policy often blamed for mass incarceration.
ANSWER: (United States/global) **war on drugs**
[10h] In a *Harper's* interview, this member of the Nixon administration brazenly admitted that they "of course" were "lying about the drugs" and that the criminalization of cannabis was meant to target "antiwar left and black people."
ANSWER: John (Daniel) **Ehrlichman**
[10m] A committee chaired by this Senator, who took over Paul Tsongas's seat, revealed that the Contras were a major source of illegal drugs. He asked "how do you ask a man to be the last man to die for a mistake?"
ANSWER: John (Forbes) **Kerry**
<JM - History: American>

2. **A player of this instrument names a six-note voicing of a minor-11 chord in two sets of fifths with a central minor second, which he employed on records like *Sunset to Dawn*, *Night and the City*, and *Peruvian Blue*. This is the primary instrument of a jazz musician known for incorporating elements of djent and his native Armenian music, Tigran Hamasyan. An NPR show featuring interviews with players of this instrument was hosted for decades by (*)** Marian McPartland, who also played it. Kenny Barron played this instrument, of which Barry Harris was an influential teacher. As a style championed by James P. Johnson largely fell out of fashion, a generation of players of this instrument were influenced by Bud Powell's approach to playing in groups. Jazz players of this instrument often play rootless chord voicings in the left hand so as not to redouble the bass player. For 10 points, name this instrument played by jazz musicians like Art Tatum and Bill Evans.
ANSWER: **piano** [prompt on "**key**boards" or "**key**s"]
<JM - Arts: Jazz>

Each year near Varanasi, five boys called *svarup* are selected for a month-long performance of this text, in which they are venerated as manifestations of the deities they portray. For 10 points each:
[10m] Name this text that is performed across South Asia in ritualized *lila* plays, usually in a vernacular version by Tulsidas. The 16th century author Chandrabarti re-wrote this text from the perspective of its female protagonist.
ANSWER: **_Rāmāyana_**m
[10e] The fifth *svarup* boy venerated in the Ramnagar Ramlila plays this character, the wife of Rama. This woman is rescued from captivity by Ravana, who then proves her purity with a trial by fire.
ANSWER: **Sītā**
[10h] At a crucial moment of the epic, Rama stops at the ashram of this character, who tells him the "secret" that the world is a performance for his divine audience, saying "according to one's costume, so should one dance."
ANSWER: **Vālmīki** [prompt on the author of the *Rāmāyana* or other equivalents]
<JM - Literature: World (Mythology)>

3. **A defect in the translocation of one of these molecules causes coagulation failure in Scott syndrome. A class of enzymes that act on these molecules has an autoinhibitory "X-Y linker" inside of a TIM barrel that contains its active site. CCT is the rate-limiting enzyme in the synthesis of two of these molecules via the Kennedy pathway. Fadok et al. identified mAb ("mab") 217 as a putative receptor for an anionic one of these molecules that is stereospecifically recognized during phagocytosis. These molecules are degraded into (*)** LPA and arachidonic acid by the A2 subtype of a certain enzyme class. Loss of the asymmetric distribution of an anionic one of these molecules is an early indicator of apoptosis. The photobleaching technique FRAP is primarily used to study the mobility of these molecules. These molecules, whose head groups include serine and choline, form a structure with embedded proteins described as a "fluid mosaic." For 10 points, name these molecules that can self-assemble to hide their hydrophobic tails, thereby forming bilayers.
ANSWER: **phospholipid**s [accept **phosphatidylserine** or **phosphoinositide**s; accept **phospholipid** bilayer; prompt on PS, PI, or PLs; prompt on lipids; prompt on lipid bilayers; generously prompt on bilayers before mentioned]
<AF - Science: Biology>

This religious movement practices multi-day ceremonies where participants confront mortality by lying in graves to pray while being partially buried alive, accompanied by non-stop percussive music. For 10 points each:
[10h] Name this religious movement that incorporates both Christian and animist concepts and images. Arising as a secret society among the Babongo people in Gabon, it is best known for its use of the psychoactive iboga plant.
ANSWER: **Bwiti**
[10e] Bwiti exemplifies this general term for the mixture of belief systems and practices, especially religions. Some scholars are critical of this term, as it implies that certain religions are "pure" and are "corrupted" by such mixture.
ANSWER: (religious/cultural) **syncretism** [accept word forms like **syncretic**]
[10m] Two syncretic religions originating in Afro-Brazilian communities, Umbanda and Candomblé, reinterpret Catholic elements around this inaccessible creator deity in Yoruba religion, who cannot be directly worshiped.
ANSWER: **Ọlọrun** [or **Olódùmarè**]
<JM - Religion>

4. **In a myth from this country's Djabugay people, the giant Damarri gave the crocodile its teeth before falling asleep and turning into a mountain range. The linguist R.M.W. Dixon observed that some myths from this country correctly detail the origins of geographical features, including volcanic eruptions forming specific lakes or a river's course changing to form a bay. In a myth from this country, a hero creates six springs as he carries his nephew's corpse to be ritually smoked. That figure, Tjilbruke, comes from this country's Kaurna culture. The anthropologists Francis Gillen, Baldwin Spencer, and A. P. Elkin popularized the controversial notion that the mythologies of this country's indigenous peoples take place in a shared (*)** "everywhen" where supernatural beings traveled along "songlines" between sacred sites. Mythical figures from this country, like the sky father Baiame and the Rainbow Serpent, are said to have lived in that "Dreamtime." For 10 points, name this country where places like Uluru are sacred to its indigenous Aboriginal peoples.
ANSWER: (Commonwealth of) **Australia**
<JM - Geography (Mythology)>

Jairo Moreno argued that classical critics' distaste for jazz pianist Keith Jarrett's tendency to vocalize and contort his body while performing was borne of this concept. For 10 points each:
[10m] Give this concept coined by Friedrich Klages to refer to the Western emphasis on the priority of language in reality and rationality. In "Plato's Pharmacy," Derrida coined a portmanteau of this word with "phallus" to capture the masculinist connotations of this concept.
ANSWER: **logocentrism** [accept word forms like **logocentric**; accept phal**logocentrism** and word forms; reject "phallocentrism"]
[10h] In a 2019 essay, this Black American cultural critic argued that the "revelation" of Jarrett's whiteness after decades of unintentional passing as Black revived the conundrum of authenticity and race in jazz. This WUSTL professor wrote *The Culture of Bruising* and *One Nation under a Groove*.
ANSWER: Gerald (Lyn) **Early** (The essay is "Keith Jarrett, Miscegenation & the Rise of the European Sensibility in Jazz in the 1970s.")
[10e] Early's essay discusses this writer's contention that Ellington already accomplished the assimilation of Western art music into jazz that "modern" musicians had pretensions toward. This cultural critic behind *Shadow and Act* is better known for novels like *Invisible Man*.
ANSWER: Ralph (Waldo) **Ellison**
<JM - Thought: Soft Social Science>

5. **The protagonist of this story repeatedly hears a voice telling him to "remember your oath" after the death of a man who only gives charitably to disreputable characters. The protagonist of this story is constantly distracted by Ianthe's beauty while trying to decipher Greek inscriptions. This story borrows the plot element of the protagonist being forbidden to speak of the death of his traveling companion from a (*)** *Fragment of a Novel* written by the author's patient while they roomed at the Villa Diodati. The villain of this story, who shares his title with the protagonist of Caroline Lamb's *Glenarvon*, is likewise a thinly-veiled portrait of Lord Byron. This story ends with the revelation that Aubrey's sister "glutted the thirst" of Lord Ruthven, its title character. For 10 points, name this John Polidori story, the earliest success in the genre of Bram Stoker's *Dracula*.
ANSWER: "The **Vampyre**"
<CS - Literature: British>

Cluster-expansion methods obtain kinetic equations for many-body systems by cutting off this set of equations at an appropriate point. For 10 points each:
[10h] Name this set of equations obtained by partial integration of the Liouville equation. This set of equations links an *s*-particle distribution function to an (*s+1*)-particle distribution function.
ANSWER: **BBGKY** hierarchy [or **Bogoliubov**-Born-Green-Kirkwood-Yvon hierarchy]
[10m] Modeling the 2-particle term in the BBGKY hierarchy using the *Stosszahlansatz* ("SHTOSE-tsal-AN-zats") yields this equation. This equation with force, diffusion, and collision terms describes the distribution function of non-equilibrium systems.
ANSWER: **Boltzmann** transport equation [or **BTE**]
[10e] Further approximating by perturbatively expanding the Boltzmann transport equation in powers of the Knudsen number yields (emphasize) *this* set of doubly-eponymous equations that describe the flow of a viscous fluid.
ANSWER: **Navier-Stokes** equations
<DE - Science: Physics>

6. **This writer recorded the earliest known instance of mooning, detailing the riot a soldier under Ventidius Cumanus thus caused. The first Latin translation by Pseudo-Hegesippus abridged this writer. Menander of Ephesus's writings survive in quotes by this author in a text dispelling myths spread by Manetho. This author inspired a mathematical problem named for him with his account of the Siege of Jotapata, in which 40 soldiers were trapped in a cave. This writer received a revelation that (*)** Vespasian would become emperor during that event. This historian defended one group's traditions in *Against Apion*. Though the ideological claims of a *Testimonium* passage bearing his name are interpolated, this historian's account of the imprisonment and death of John the Baptist and mention of a brother of James "called Christ" are authentic. For 10 points, name this first-century historian on Roman-occupied Judaea who wrote *Antiquities of the Jews* and *The Jewish War*.
ANSWER: (Titus) Flavius **Josephus** [or **Joseph ben Matityahu**] (The interpolated passage is the *Testimonium Flavianum*.)
<JM - History: Ancient/Other>

This artist's battle with schizophrenia led her to abandon feminist activism and lead a reclusive lifestyle to the point that her biographer claims she didn't read the news even once in her final fifty years. For 10 points each:
[10h] Name this Canadian-born abstract painter closely associated with her former home of Taos, New Mexico, where the Harwood Museum collects much of her art. Her work centers on soft colors and subtle squares or grids.
ANSWER: Agnes (Bernice) **Martin**
[10e] Like Martin, this artist also spent time in Taos, moving to New Mexico from New York, where she began painting animal skulls and desert landscapes alongside her signature stylized depictions of flowers.
ANSWER: Georgia (Totto) **O'Keeffe**
[10m] Martin was supported and championed throughout her career by this artist, whose four rusted steel *Broken Obelisk* sculptures feature the title objects inverted and balancing on a pyramid.
ANSWER: Barnett **Newman**
<JM - Arts: Painting and Sculpture>

7. A Chinese Buddhist school added a category to a theory of this concept on account of the mutual reversal of local coherence and global incoherence, or "transformative self-recontextualization." An earlier philosopher reckoned with problematic statements of the Buddha by introducing a distinction in *this* concept and analyzing "dependent co-arising." Zhiyi ("ZHEE-yuh") applied the logic of that earlier distinction between types of this concept to the theory itself, arguing the two types are "neither same nor different," a principle called the "center" or the (*) "third" form of this "threefold" concept by the Tiantai school. That distinction between *saṁvṛti* ("sum-VUR-tee") and *paramārtha* ("puh-ruh-MART-huh") or "conventional" and "ultimate" forms of this concept was central to Mādhyamaka ("mud-HYUM-uh-kuh") thought after Nāgārjuna. A classical list of these things includes *dukkha* and *nirodha*, or suffering and cessation. For 10 points, give this word that names "Four Noble" principles in Buddhist thought.
    ANSWER: **truth**s [or **satya**s, or **sacca**s; accept "**reality**" or "**realities**" because that is a correct translation of **satya**/**sacca** as well]
    <JM - Thought: Other Philosophy>

    A poem whose title ends with this word concludes with a triumphant stanza in which the poet declares, "My sight was clear; I looked and saw the rising sun." For 10 points each:
    [10h] Give this word that titles a collection containing poems by Alain Locke and Carl van Vechten, as well as the poem "Yet Do I Marvel."
    ANSWER: **color** [accept "The Shroud of **Color**"]
    [10m] *Color* is a collection by this Harlem Renaissance poet whose other poems include "Incident" and "Heritage."
    ANSWER: Countee **Cullen** [or Countee (LeRoy) **Porter**]
    [10e] In "Heritage," Cullen opens by asking "What is [this place] to me?" Phillis Wheatley describes this place as her "Pagan land" in a poem about being brought to America from here.
    ANSWER: **Africa** [accept "On Being Brought from **Africa** to America"]
    <CM - Literature: American>

8. Three "whiffles" and a "delta frame" composed primarily of beryllium are used to support one of these objects, also made from beryllium. The Caris Lab under the football stadium of the University of Arizona is the US's leading manufacturer of the largest type of these objects, which it manufactures from Ohara's E6 product using a custom-designed oven. Lightweight examples of these objects use a ribbed support that resembles a honeycomb. The LZT experiment uses an inexpensive type of these devices that consists of a (*) rotating pool of liquid mercury. Guido d'Arturo pioneered a method for constructing large examples of these objects that results in a characteristic "six spike" diffraction pattern. Seven of these objects will span 25 meters to form a "Giant" structure named for Magellan. 18 hexagonal segments unfolded into a single primary one of these objects at L2 for the James Webb Space Telescope. For 10 points, name these structures that are used in reflecting telescopes.
    ANSWER: reflecting telescope **mirror**s [prompt on space <u>telescope</u>s]
    <JL - Science: Astronomy>

A film by one of these directors, in which two characters look at tree rings in Muir Woods, is referenced in a film by the other, in which a man points past the edge of a tree ring and says he is from the future. For 10 points each:
[10h] Name these two directors. An essay-film by one of these directors, set mainly in Japan and Guinea-Bissau, includes a section that revisits many of the sites where the other shot one of his films.
ANSWER: Chris **Marker** AND Alfred (Joseph) **Hitchcock** [accept in either order; accept Christian François **Bouche-Villeneuve** in place of Marker]
[10e] A man in Marker's *Sans Soleil* ("SAHN soh-LAY") claims that this Hitchcock movie is the only film that has portrayed "impossible memory." In this film, the acrophobic Scottie, played by Jimmy Stewart, follows a woman played by Kim Novak.
ANSWER: *__Vertigo__*
[10m] *Sans Soleil* includes a still from the end of *Vertigo* in which Kim Novak's character sees one of these people, after which she screams and falls to her death. As the film ends, that one of these people begins ringing a bell.
ANSWER: **nun** [or **sister**; prompt on clergy or monastic; reject "priest"]
<TM - Arts: Film>

9. **This poet concluded a short work titled "The Farewell" by writing, "On earth we'll see no more of each other / Fragrance of time sprig of heather / Remember I wait for you forever." Throughout Kenzaburō Ōe's *A Personal Matter*, the protagonist repeatedly compares the appearance of his infant son to this poet. In a poem, this author wrote, "Christ's flamboyant halo spins forever," before delivering eight lines that command the reader to "Behold" things like "red-haired torch inextinguishable" and "Christ who flies higher than aviators." This poet wrote, "And you drink an (*)** alcohol as caustic as your life / Your life you drink as alcohol" in that poem, which calls Pope Pius X "the most modern European," and ends, "Goodbye Goodbye / Sun slit throat." This poet included music notation in works from a collection that features concrete poems shaped like a heart and the Eiffel Tower, and began another collection with "Zone." For 10 points, name this French poet who wrote *Calligrammes* and *Alcools*.
ANSWER: Guillaume **Apollinaire** [or Wilhelm Albert Wlodzimierz Apolinary **Kostrowicki**]
<JM - Literature: European>

Answer the following about the political career of Empress Irene of Athens, for 10 points each.
[10e] Irene ended the first period of this Byzantine religious policy that banned the veneration of images. Its second period began after Nikephoros I, who took power by exiling Irene, was killed while trying to invade Bulgaria.
ANSWER: **iconoclasm** [prompt on descriptions of banning icons]
[10h] Theophanes the Confessor somewhat dubiously claims that when Nikephoros's coup struck, Irene had been on the cusp of politically reuniting the Eastern and Western Roman Empires by taking this specific action.
ANSWER: **marry**ing **Charlemagne** [accept **Charles the Great** for "Charlemagne;" prompt on marriage or equivalents; prompt on answers like marrying the Holy Roman Emperor or marrying the Carolingian Emperor by asking "which specific emperor?"; prompt on answers like allying with the Carolingians]
[10m] The third pope of this name may have crowned Charlemagne Holy Roman Emperor specifically to undercut Irene. The third emperor of this name began the first period of Byzantine iconoclasm in 726.
ANSWER: **Leo** [accept **Leo** III]
<VA - History: European>

10. **This character is evoked in a tango that opens with a bassoon quoting the *Dies Irae*, which closes a five-part programmatic symphony by Michael Daugherty. The "love theme" of a score titled for this person quotes the "transfiguration" motif from Richard Strauss's *Death and Transfiguration*. This person titles a score that includes the song "Can You Read My Mind?" and also titles a composition that ends with the plea to be held in "long," "petrochemical," military," "electronic arms." That song titled for this person was based on an aria from (*) *Le Cid*, explaining its subtitle "For Massenet." A looped "ha, ha, ha, ha" plays throughout that song on *Big Science*, which Laurie Anderson titled "O [this person]." For 10 points, name this character for whom John Williams composed a brassy, heroic march theme in a Christopher Reeve comic book film.**
ANSWER: **Superman** [or **Kal-El**; or either underlined portion of **Clark Kent**] (The clues, in order, are from the *Metropolis*, John Williams's *Superman* soundtrack, and "O Superman.")
<CS - Arts: Classical Music>

The canonical surjection from a topological space onto one of these spaces induces its standard topology. For 10 points each:
[10m] Name these spaces that, for a given equivalence relation, consist of the equivalence classes under that relation. This term similarly refers to the group formed from the cosets of "*G* mod *N*," with *N* a normal subgroup.
ANSWER: **quotient** space [or **quotient** group; or **quotient** topology]
[10e] Forming a quotient space is often analogized to "gluing" points together. For example, quotienting a square by the relation that identifies pairs of opposite sides produces one of these donut-shaped surfaces.
ANSWER: **torus** [or **tori**]
[10h] The quotient topology is used in the construction of these spaces, central to algebraic topology. These spaces possess an ascending sequence of subspaces called *n*-skeletons that consist of all cells of dimension at most *n*.
ANSWER: **CW complex**es [accept **cell complex**es; prompt on complexes]
<TM - Science: Mathematics>

11. **It's not Basque separatism, but Gladys del Estal became a martyr for both it and this cause. Demonstrators for this cause threw Molotov cocktails at a protest in Wackersdorf that, like many in Europe in the 70s, was organized by the eugenicist ex-Nazi Günther Schwab's "World Union for the Protection of Life." The revelation of her brother's state terrorism *against* this movement damaged Ségolène Royal's** ("say-guh-LEN roy-YALL's") **presidential campaign. The photographer Fernando Pereira died when that intelligence plot, codenamed Opération (*)** Satanique ("sah-tah-NEEK"), attacked a group traveling to support this cause. Gerald Holtom's semaphore-based logo for a British organization in this movement became the globally popular peace sign. The German Green Party emerged from this movement in the 1980s, around the time France sank Greenpeace's *Rainbow Warrior* en route to an action for this cause. Often traced to a letter by Einstein and Russell—for 10 points—name this movement emboldened by a 1986 disaster in Chernobyl.
ANSWER: **anti-nuclear** movement/cause [accept answers mentioning **opposition to nuclear** power or **opposition to nuclear** weapons or **opposition to nuclear** testing; accept **nuclear disarmament**; prompt on disarmament or environmentalism; prompt on green parties/movements before mention; prompt on pacifism and equivalents]
<JM - History: Europe>

Note to moderators: read "§1983" as "Section Nineteen Eighty-Three"
Answer the following about the workhorse of civil rights litigation, a portion of the 1871 Ku Klux Klan Act re-codified as §1983 that creates civil liability for violating civil rights under color of state law, for 10 points each.
[10e] To limit §1983's reach, *Pierson v. Ray* invented a bar to liability called a "qualified" type of this concept to shield police officers. Its "sovereign" form, codified in the 11th Amendment, protects state governments from suit.
ANSWER: (qualified or sovereign) **immunity** [accept word forms]
[10h] Some §1983 suits avoid sovereign immunity by suing state officials in their "personal" rather than "official capacity." That strategy uses a loophole created by this 1908 case, which notoriously cutely held that an official violating Constitutional rights could not possibly be doing so in their "official" capacity.
ANSWER: ***Ex parte Young***
[10m] Since *Estelle v. Gamble*, "deliberate indifference" to likely harm may violate this clause of the Bill of Rights for §1983 purposes. Cases on this clause like *Roper v. Simmons* often debate "evolving standards of decency."
ANSWER: **cruel and unusual punishment** clause [prompt on the Eighth Amendment]
<JG - Hard Social Science: Law>

- **HALFTIME** -

12. **A play by this author ends with the actors coming back onto stage and commenting about work plans, dinner plans, and other mundane matters while random sounds like bicycle bells, running water, and ambulance sirens play in the background. In a play by this "nothingist" author, a Woman emerges from the Oblivion and teaches the Crowd how to use language, but the newly confident Crowd subsequently turns against the Woman and kills her. Twelve actors play a (*)** rope game at the beginning of a play by this author, who wrote another play in which the only set pieces included are two railings arranged like a cross. This author wrote a play in which characters such as Carpenter and Hothead wait at the title location alongside Glasses, who then checks his watch and notices that ten years have passed. *The Other Shore* and *Bus Stop* are plays by—for 10 points—what Nobel-winning Chinese author who also wrote the novel *Soul Mountain*?
ANSWER: **Gao** Xingjian [or Xingjian **Gao**]
<JM - Literature: World>

Though they usually have seven notes before the octave like Western analogues, these scales are based on 24-tone equal temperament and often use the quarter-tonal neutral second interval. For 10 points each:
[10h] Name these melodic modes central to Arabic music, based on combinations of at least two three-to-five-note sequences called *ajnas* or *jins*.
ANSWER: **maqām**s [or ***maqāmāt***]
[10m] Western soundtracks often use this interval to evoke the scales used in Middle Eastern music. This scalar interval is enharmonic to a minor third, and is formed by a gap of three half-steps between tones.
ANSWER: **augmented second**
[10e] The "double harmonic" minor scale named for this country features two augmented seconds. Zoltán Kodály ("KOH-dye") documented this country's folk music, which inspired a Liszt *Rhapsody* and some *Dances* by Brahms.
ANSWER: **Hungary** [or ***Magyarország***; accept ***Hungarian*** *Dances* or ***Hungarian*** *Rhapsody*]
<JM - Arts: Other Music>

13. **Representatives in this polity had to publicly debate a proposal to unanimity with the others from their constituency before other groups in their "moiety" could do the same and pass it to the remaining "senior" or "junior moiety" constituencies. The earliest academic study of this polity, by Cadwallader Colden, notes that its "great men" were poorer than its "common people." Donald Grinde and Bruce Johansen's** *Exemplar of Liberty* **defended the controversial "influence thesis" concerning this polity, in which political demotion by "knocking off the horns" was available to clan (*)** mothers at will. Representatives in this polity, symbolized by an eastern white pine, convened at an eternal fire preserved by tie-breaking "firekeeper" representatives from its capital constituency. This polity signed a set of agreements called the Covenant Chain. This polity was founded by the Mother of Nations Jigonsaseh and Great Peacemaker Deganawidah, who instituted the Great Law of Peace. For 10 points, name this union of the indigenous Oneida, Tuscarora, Onondaga, Cayuga, Seneca, and Mohawk peoples.
ANSWER: **Iroquois Confederacy** [or **Haudenosaunee** ("hoe-den-oh-SHOW-nee") Confederacy/League; accept **Iroquois League**; prompt on <u>Iroquois</u> or League of <u>Five Nations</u> or League of <u>Six Nations</u>]
<JM - History: American>

This reaction can be modified into a chain-extension reaction by introducing an electrophile after the addition of carbon tetrabromide but before work up to reach the final product. For 10 points each:
[10m] Name this two-step reaction in which an aldehyde undergoes a Wittig reaction to form a dihalogen alkene intermediate before being converted into the final product after treatment with butyl-lithium.
ANSWER: Ramirez–**Corey–Fuchs** reaction
[10e] The Corey-Fuchs reaction is used to generate this functional group from aldehydes. Hydrogenation of this functional group yields alkenes.
ANSWER: **alkyne**s [prompt on <u>triple bond</u>s, reject "alkanes"]
[10h] Due to the mechanism of the Fritsch-Buttenberg-Wiechell rearrangement in step two, the Corey-Fuchs reaction always forms products with this property. This property can be identified by two IR peaks, a strong 3300 inverse centimeter peak and a weaker one closer to 2200.
ANSWER: **terminal** alkynes [accept word forms that may or may not be real words like **terminality**]
<SS - Science: Chemistry>

14. **This concept names a "speech act" model in which a "pragmatic listener" uses Bayes's rule to recursively analyze a "pragmatic speaker" and a "literal listener." Hugo Mercier and Dan Sperber argued that this faculty is not a "cognitive superpower" in a 2017 book about its "enigma." Inspired by Marr's computational level, John Anderson developed the ACT-R architecture which attempts to explain cognitive function via this type of "analysis." Agents employ an "adaptive toolbox" which is (*)** "fast-and-frugal" according to an "ecological" interpretation of this concept championed by Gerd Gigerenzer. Decision-makers are modeled as satisficers rather than optimizers in theories that treat this property as "bounded." This property names a "choice theory" where actors are presumed to use cost-benefit analysis in decision making. For 10 points, identify this commonly assumed property of decision-makers who maximize expected utility.
ANSWER: **rational**ity [accept word forms like **reason**ing; accept bounded **rational**ity, **rational** analysis, **Rational** Speech Act model, and **rational** choice theory; accept *The Enigma of **Reason***]
<CK - Hard Social Science: Economics>

Members of this ethnic group constituted the bulk of the population of Castle Mountain Internment Camp, where they helped construct Banff National Park. For 10 points each:

[10h] Identify this ethnic group whose first wave of immigration created the Edna-Star block settlement in Alberta. They were the largest group imprisoned under the 1914 War Measures Act.

ANSWER: **Ukrainian**-Canadians

[10m] This Canadian PM used the War Measures Act to intern Ukrainians during World War I. Despite facing the Conscription Crisis, his pro-war Unionist Party crushed Wilfrid Laurier's Liberal Party in 1917.

ANSWER: Sir Robert **Borden**

[10e] The War Measures Act was again invoked several decades later to intern this ethnic group whom the United States' government interned in camps like Manzanar.

ANSWER: **Japanese**-Canadians [or **Japanese**-Americans; prompt on Asian-Americans]

<CK - History: Ancient/Other>

15. **An artistic dynasty from this city produced the first female artist known to have worked in England, who painted for Henry VIII. With an alphabetically-earlier one, this city names a school of manuscript illumination epitomized by the Bening and Horenbout families. A painter from this city related by marriage to those families anachronistically depicted Saint Peter in vestments performing last rites in his _Death of the Virgin_. That artist from this city is better known for the Monforte and (*)** Portinari altarpieces. A work located in this home of Hugo van der Goes depicts Saint George and the dragon carved into an in-painting lectern, and shows an angel playing an organ. That work, whose lower panel depicts a chalice filling with blood from a lamb, was created for Saint Bavo's cathedral in this city. For 10 points, name this Belgian city with a namesake altarpiece by Hubert and Jan van Eyck.

ANSWER: **Ghent** [or _**Gand**_; or **Gaunt**] (The woman mentioned in the first sentence is Susanna Hornebolt of the Horenbout family, and the style of manuscript illumination is named for both Ghent and Bruges.)

<JM - Arts: Painting and Sculpture>

Michael Dummett's paper "Wang's Paradox" argues that denying the existence of sets with this property is inconsistent because concepts like "small number" are susceptible to the sorites ("SOR-ih-teez") paradox. For 10 points each:

[10e] Identify this property. "Strict" or "ultra-" forms of a position named for denying this property reject unbounded objects and inferences.

ANSWER: **infinite** [or **infinity**; accept equivalents like **non-finite**] (The positions are Strict Finitism and Ultrafinitism.)

[10m] Many scholars read this thinker's _Lectures on the Foundations of Mathematics_ as endorsing strict finitism. Alan Turing argued, contra this man, that contradictions in mathematics are only bad if "a bridge may fall down."

ANSWER: Ludwig (Joseph Johann) **Wittgenstein**

[10h] Finitists often work in this system of arithmetic which, unlike Robinson's Q, is quantifier-free. In this system, all arithmetic operations can be defined using only constant functions, projections, successor, and for-loops, but unlike Peano Arithmetic it does not allow induction over all natural numbers.

ANSWER: **Primitive Recursive Arithmetic** [or **PRA**; accept **Skolem** arithmetic]

<CK - Thought: Philosophy>

16. **In 2013, one form of this effect was experimentally observed for the first time by Xue Qikun's group using chromium-doped bismuth antimony telluride. For low charge densities, liquid phases that exhibit this effect compete with solid Wigner crystals. Certain materials exhibiting this effect may be useful for building a topological quantum computer, since they produce braided states. Chern number solutions to Harper's equation can be plotted in a fractal representation of this effect known as (*)** Hofstadter's butterfly. It's not the Josephson effect, but this effect can be used to precisely measure the fine structure constant. Graphene exhibits this effect because it has a Landau level exactly at its Dirac point. By subjecting MOSFETs to strong magnetic fields, Klaus von Klitzing discovered this effect and its exact quantization. For 10 points, give this quantum analog of a classical effect in which a potential difference is generated across a conductor proportional to both current and applied magnetic field.
ANSWER: **quantum Hall** effect [accept integer **quantum Hall** effect or fractional **quantum Hall** effect; accept **quantum anomalous Hall** effect or **QAHE**; prompt on Hall effect]
<DE - Science: Physics>

Sammy Starfield plots with the film star Sadie Quentin to steal a manuscript by the protagonist of this novel. For 10 points each:
[10h] Name this novel in which the protagonist kidnaps Sammy's dog while trying to retrieve his translation of *Le Rossignol de Bois*. The protagonist of this novel uses his conversations with Hugo Bellfounder as the basis of his book *The Silencer*.
ANSWER: ***Under the Net***
[10m] Iris Murdoch's novel *Under the Net* is dedicated to this French author of *Pierrot Mon Ami*. The neologism "Doukipudonktan" begins this author's novel *Zazie in the Metro*.
ANSWER: Raymond **Queneau**
[10e] In *Under the Net*, Jake Donaghue's search for Hugo leads him to visit many of these establishments, such as the "Skinner's Arms." One of these places is the setting of Eugene O'Neill's play *The Iceman Cometh.*
ANSWER: **pub**s [or **bar**s or **tavern**s or **saloon**s or other equivalents; prompt on restaurants or similar answers that do not expressly imply that it is an establishment that primarily serves alcohol]
<VA - Literature: British>

17. **Daudi Ochieng caused a political crisis in this country by accusing various politicians of illegally profiting from a neighboring country's rebellion. Andrew Cohen deported a traditional leader for refusing to unite this country with its neighbors, but had to reinstate him after it backfired. That leader's relationship with an ally soured after this country's "Lost Counties" Referendum. A prime minister of this country funneled gold to the foreign rebel Christophe Gbenye** ("guh-BEN-yay") **and ousted a politician called "King (*)** Freddie" at the Battle of Mengo Hill. The rule of one leader of this country collapsed after the Battle of Luyaka. That leader of this country was served by the State Research Bureau and had archbishop Janani Luwum killed. Kabaka Edward Mutesa II was ousted in this country by a Prime Minister who pursued a "Move to the Left" with proclamations like the Common Man's Charter. For 10 points, name this country where Milton Obote ("oh-BOH-tay") was overthrown by his general Idi Amin.
ANSWER: Republic of **Uganda** [or *(Jamhuri ya)* **Uganda**; accept Kingdom of **Buganda** before "president" is read]
<JM - History: World>

Along with a more philosophically relevant profession, this dialogue's title character and his brother Dionysodorus were also comically employed in an ancient mixed martial art called *pankration*. For 10 points each:

[10h] Name this dialogue in which Socrates refutes those brothers' fallacious, "eristic" reasoning, like an argument that false statements are impossible because speech exists but false things cannot, by definition.

ANSWER: ***Euthydemus***

[10e] The brothers, like Protagoras and Gorgias, worked as these teachers of rhetoric and virtue, frequent targets of Plato that title one of his dialogues. In contemporary English, forms of this word disparagingly describe deceptive arguments and intellectual charlatans.

ANSWER: **sophist**s [accept *The **Sophist***; accept word forms like "**sophist**ry" or "**sophist**ical"]

[10m] As reported in *Theaetetus*, Protagoras summed up his sophistical absolute relativism with this catchphrase.

ANSWER: "**Man is the measure of all things**" [accept equivalent translations such as "**Of all things Man is the measure**" or "**Of all things the measure is Man**;" accept "***panton khrematon anthropon metron einai***"]

<JM - Thought: Other Philosophy>

18. **The question of why this discipline has accorded visual perception central importance is discussed in *The Eyes of the Skin* by Juhani Pallasmaa ("YOO-hah-nee PAHLL-uhss-maah"). The theory that this discipline evolves on a logic independent from other fields is advanced in a 2011 book on its "*Autopoiesis*" by Patrik Schumacher. Christian Norberg-Schulz explored a phenomenological approach to this discipline in *Genius Loci*, following another author's book discussing "psychological polarities" in this field. Practitioner Cesare Cesariano ("CHAY-sar-ay CHAY-sar-ee-ah-no") provided illustrations after Poggio Bracciolini ("POH-joe bratch-oh-LEE-nee") discovered a (*)** classical manuscript of *Ten Books* on this discipline. This discipline is discussed in Gaston Bachelard's *Poetics of Space*. An essay on this discipline's "Seven Lamps" was expanded into John Ruskin's *The Stones of Venice*. For 10 points, a treatise by Vitruvius discusses what discipline practiced by Palladio?

ANSWER: **architecture** [prompt on design or aesthetics or art or structural engineering]

<JM - Arts: Architecture>

In "Notes on the Way," E. M. Forster wrote that the conflict between the British Union of Fascists and the Communist Party of Great Britain was like a scene from this play. For 10 points each:

[10h] Name this play later adapted into Jan Švankmajer's ("SHVAHNK-mah-yur's") last film. Like *Animal Farm*, this play allegorized post-World War I society by having the title creatures represent human characteristics.

ANSWER: *The **Life of the Insects*** [or ***Pictures from the Insects' Life***; or *The **Insect Play***; or *The **Insect Comedy***; or *The **World We Live In***; or ***From Insect Life***; or ***Ze života hmyzu***] (The Jan Švankmajer film is *Hmyz*.)

[10e] *The Life of Insects* is a collaboration between this Czech author and his brother Josef ("YO-sef"). This author of *War with the Newts* coined the word "robot" in his play *R.U.R.*

ANSWER: Karel **Čapek** ("CHAH-pek")

[10m] In Čapek's *The Makropulos Affair*, the title character Elina was granted this characteristic by Holy Roman Emperor Rudolf II. An essay by Bernard Williams about the play is subtitled for the "tedium" of this phenomenon.

ANSWER: **immortality** [accept equivalents such as that she **cannot die**]

<JM - Literature: European>

19. **The Hoeschele ("HESH-luh") lab developed a synthesis of this compound that is carried out in a single step in a microwave and allows for easy incorporation of the *195m* radionuclide. This compound is activated by undergoing mono- or diaquation. S.C. Dhara developed the first efficient synthesis of this compound, which begins with a substitution of iodine to avoid the unwanted formation of Magnus's green salt. Barnett Rosenberg discovered this compound's utility after noticing strange filamentous overgrowth of (*)** *E. coli* subjected to electric fields. Two of this compound's ligands are replaced with the cyclobutane-containing moiety CBDCA in a less toxic variant of it with the prefix 'carbo-.' This compound preferentially binds to the seventh nitrogen of guanine, thereby inhibiting DNA replication and causing apoptosis. The isomerism of two consecutive ligand additions in the synthesis of this square planar compound is the classic example of the trans effect. For 10 points, name this anticancer drug consisting of two ammonias and two chlorides bonded to platinum.
ANSWER: **cisplatin**
<AF - Science: Chemistry>

In 2019, it was revealed that an incredibly debilitating neurodegenerative disease similar to prion disorders is localized entirely in this province, with no known cause or treatment. For 10 points each:
[10e] Name this Canadian maritime province which borders Maine, Quebec, and Nova Scotia, along with the bridge to Prince Edward Island. Its largest cities are Moncton and Saint John, while its capital is Fredericton.
ANSWER: **New Brunswick** [or ***Nouveau-Brunswick***]
[10m] A plurality of New Brunswick's economy is owned by the company named for this family, which controls most of the province's media outlets and numerous industries centered on the province's petroleum production.
ANSWER: **Irving** [accept J.D. **Irving**, Ltd; **Irving** Oil; K.C. **Irving**; and **Irving** Group of Companies]
[10h] One of New Brunswick's most iconic natural attractions is this site, where the extreme tides of the Bay of Fundy recede so far that one can walk on the muddy seafloor among stone formations carved by tidal erosion.
ANSWER: **Hopewell Rocks** [or **Hopewell Cape**; or the **Flowerpot Rocks**; prompt on Fundy National Park]
<JM - Geography>

20. **A brief chapter in a novel describes this body of water "inviting the soul to wander for a spell in abysses of solitude." A man teasingly tells the protagonist of that novel that a spirit rises from this body of water during full moons on August 28th. In an opening chapter, a man struggling to read the newspaper sees his wife's white sunshade returning from this body of water in the distance. At this body of water, the protagonist remembers a dog chained to a sycamore tree and the clanging spurs of a (*)** cavalry officer as "the musky odor of pinks [fill] the air." While sitting with a view of this body of water, the protagonist listens to Mademoiselle Reisz play the piano. The protagonist of that 1899 novel heads to this body of water after finding a note in the "pigeon house" reading, "Good-by — because I love you" written by Robert Lebrun. For 10 points, name this body of water where Edna Pontellier drowns herself at the end of Kate Chopin's novel *The Awakening*.
ANSWER: **Gulf of Mexico** [prompt on the Atlantic Ocean; prompt on the Gulf Coast; prompt on the sea or the ocean]
<TM - Literature: American>

The central melody of this collection begins with the ascending notes (read slowly) C, E flat, G, A flat, dropping to a B natural before a descending series of half-steps. For 10 points each:

[10m] Name this collection of keyboard pieces. It was derived from a highly chromatic *Thema Regium* played on the transverse flute by a composer's patron, who wanted to hear the melody improvised into a fugue.

ANSWER: The ***Musical Offering***, BWV 1079 [or *Das **Musikalisches Opfer***] (The patron is Frederick the Great of Prussia.)

[10e] *The Musical Offering* was written by this Baroque composer, whose son Carl Philipp Emanuel was employed as Frederick's court musician.

ANSWER: Johann Sebastian **Bach** [or J. S. **Bach**]

[10h] Some critics consider this piece *The Musical Offering*'s high point. This *tour de force* for six voices is named for its "searching," key-ambiguous form, like another three-voice piece in the collection.

ANSWER: ***Ricercar*** *a 6* [or the ***Prussian Fugue***]

<JM - Arts: Classical Music>

21. **The city of Linxia is home to the shrine of an early modern Chinese leader in this religious lineage named Ma Laichi. This lineage developed a concept of ego-annihilation termed "dying before one dies," enabling a three-graded state of alignment with the divine plan. A massive annual pilgrimage among this lineage called the Grand Magal commemorates Amadou Bamba. The preponderance of mausoleums of figures from this tradition garnered Uch and Multan, Pakistan the nickname "City of (*)** Saints." The Mouride is one sect within this tradition. Buildings called *khanqah* are constructed near *dargah* shrines in this tradition. A ritual from a school of this tradition involves a flute improvisation called *taksim* and is called *sama*. This lineage's Naqshbandi school teaches a practice where one synchronizes invocations of God's names with heartbeats. Sects in this tradition organize around leaders who trace their lineage back to Muhammad called *wali*, forming a *tariqa*. For 10 points, name this "mystical" lineage of Islam whose Mevlevi sect practices "whirling."

ANSWER: **Sufi**sm [or **Sufi** Islam; or *aṣ-**ṣūfiyya***; or *at-**taṣawwuf***; accept **Naqshbandi** before "Amadou" is read; prompt on (Sunni or Shia) Islam before mention; anti-prompt on Mouride before mention] (The ego-annihilation concept is *fana* and the state of alignment with divine purposes is *baqaa*.)

<JM - Religion>

Answer the following about claims by random American self-proclaimed "adventurers" about the lost "Ciudad Blanca," starting with Theodore Morde's claim to have found a "city of the monkey god." For 10 points each:

[10m] Morde completely made up his "adventures" in this modern-day country, but there are howler monkey statues at its Mayan site of Copán. Its currency is named for Lempira, who led its Lenca people against Spanish conquests.

ANSWER: Republic of **Honduras** [or *República de **Honduras***]

[10h] The "adventurer" Ted Maschal thinks these Nahua-speaking people built La Ciudad Blanca. Atlacatl ("aht-luh-CAH-tull") led these people, whose name may derive from an Aztec social class, against Pedro de Alvarado at the Battle of Acajutla ("ah-suh-HOOT-luh").

ANSWER: **Pipil** [accept **Cuzcatl**ecos or the **Cuzcatlan** Confederacy]

[10e] Rosemary Joyce called a 2012 claim "at least the fifth time" La Ciudad Blanca was "found." Joyce proved that the Mayans invented this bean-based drink, taken to Europe by the conquistadors, while trying to make beer.

ANSWER: **chocolate** [or **chocolatl**; accept **cocoa** or **cacao**]

<VA - History: World>

22. **A form of this concept is analyzed with a passage from Margaret Atwood's novel *Lady Oracle* in which the protagonist discovers "the real red shoes" after bloodying her feet stepping in glass. A form of this concept subtitles the chapter "Infection in the Sentence" from a book that discusses the stifling effect a form of this concept has on "attempting the pen." This is the first title concept of a book that adapts a term that William Blake used for an obstructive "demon of continuity" called the (*)** Covering Cherub. Gilbert and Gubar's *Madwoman in the Attic* proposed a feminist theory in which this concept stems from authorship, rebutting an earlier book that analyzes this feeling through six "revisionary ratios." This feeling causes writers to misinterpret their literary forebears according to that book, written two decades before its author became embroiled in the "canon wars." For 10 points, name this uneasy feeling that Harold Bloom claimed arises via influence.
ANSWER: **anxiety** [accept **anxiety** of authorship or **anxiety** of influence; prompt on authorship or influence by asking "which is associated with what feeling?"]
<TM - Thought: Soft Social Science>

Iliff and Nedergaard discovered this system in 2013 through imaging tracers in the subarachnoid CSF. For 10 points each:
[10h] Name this system composed mainly of astrocytes in the perivascular space that works alongside meningeal vessels to clear waste from the brain. Researchers currently debate whether this system involves bulk flow of interstitial solutes.
ANSWER: **glymphatic** system [or **glymphatic**s; reject answers involving "lymphatic"]
[10m] These proteins on astrocyte endfeet enable fluid transport in the glymphatic system. These proteins consist of six transmembrane alpha-helices surrounding an hourglass-shaped channel.
ANSWER: **aquaporin**s [or **AQP**; accept **Aquaporin**-4 or **AQP**4]
[10e] The glymphatic system is primarily active during this physiological state. Its clearance of waste like amyloid-beta may be related to the process of memory consolidation, which also happens during this state.
ANSWER: **sleep**ing [accept word forms]
<VA - Science: Biology>