

## CMST II

### Packet 11

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1. **Fischer and Schützhöld proposed experimentally measuring quantum fluctuations in this theory by subjecting a 2D Bose-Einstein condensate to sound waves. Using the technique of flux compactification, string cosmology incorporates this theory as a consequence of the motion of D-branes governed by the Dirac-Born-Infeld action. Hybrid versions of this theory incorporate secondary scalar fields to satisfy the condition that a potential be flat, allowing the (\*) “slow-roll” process to occur.** This theory removes all point defects, and was thus originally proposed to explain the absence of magnetic monopoles. This theory explains the homogeneity and isotropy of the cosmic microwave background as a consequence of a large cosmological constant in the very early universe. For 10 points, name this theory proposed by Alan Guth in which the universe exponentially expanded during an epoch that began  $10^{-36}$  seconds after the Big Bang.

ANSWER: cosmic **inflation**

<DE - Science: Physics>

The spy Kim Philby betrayed Operation Valuable, a plan to restore this leader to power, and he was overthrown in the Revolution of June 24th after being widely blamed for the assassination of Avni Rustemi. For 10 points each: [10m] Name this leader, who then quickly used a mercenary army and the unpopularity of Fan Noli’s “Twenty-Point Program” to return to power. He was nearly assassinated while watching *Pagliacci* at the Vienna State Opera.

ANSWER: **Zog I** [or Naltmadhnija e tij **Zogu I**, Mbreti i Shqipërisë; accept Ahmed Muhtar Bey **Zogolli**]

[10e] Zog I crowned himself king of this Balkan country before Mussolini invaded it in World War II. Zog was barred from this Muslim-majority country by its bunker-loving communist leader, Enver Hoxha (“HOH-juh”).

ANSWER: (Republic of) **Albania** [or **Shqipëria**; accept Republika e **Shqipërisë** or Mbretinija **Shqiptare**]

[10h] The Great Power’s ineffectual original choice for King of Albania, William of Wied (“VEED”), ruled from this city until the Congress of Lushnjë (“LUSH-nyuh”). Lodewijk (“loh-deh-WIKE”) Thomson died defending this city from Haxhi Qamili’s (“HAH-jee CHYAH-muh-lee’s”) pro-Ottoman peasant revolt.

ANSWER: **Durrës** [accept **Dyrrachium** or **Dyrrhachion**; accept **Epidamnos**; accept **Durazzo**]

<VA - History: European>

2. **A worker at this kind of place hallucinates the old coachman Ali standing in its doorway after years of daily pilgrimages in a Gujarati story by Dhumketu. A worker at another of these places in Ulapur tells stories of his life to a girl who refers to the people in them as her own relatives. Thanuppa arranges a marriage for Ramanujan’s daughter while working at one of these places in the second story from *Malgudi Days*. A gaffer dressed as a fakir tells of the Isle of (\*) Parrots in a play titled for this kind of place. An employee of one of these places leaves the orphan Ratan behind after teaching her to read in a story by Rabindranath Tagore. In a play that Andre Gide translated and read on air the night before the Nazis took Paris, Madhav’s sickly adopted son Amal dreams of working at one of these places. For 10 points, that Tagore play is titled for what place where Amal would handle the king’s letters?**

ANSWER: **post** offices [or other equivalent answers describing places where **mail** or **post** is handled] (The clues are from Dhumketu’s “Post Office,” Tagore’s “The Postmaster,” R.K. Narayan’s “The Missing Mail,” and Tagore’s *The Post Office*.)

<CS - Literature: World>

After briefly ending the schism with a trip to Constantinople, Nicolas of Cusa returned with manuscripts in this language that would profoundly influence his philosophy, although he never learned to read it. For 10 points each: [10e] Name this language that was used to write most Patristic texts and others in the Platonic lineage, known by few Western scholars after Latin became the primary academic language.

ANSWER: (ancient/attic/medieval/koine/Byzantine) **Greek** [or *Hellēnikḗ*]

[10m] This 9th century Irish thinker, legendarily stabbed to death by his students' pencils, had rare Greek-reading skills. His *De Divisione Naturae* sought to derive all of reality from "all things which are and which are not."

ANSWER: John Scotus **Eriugena** [or John the Scot **Eriugena**; or Johannes (the Scot/Scotus) **Eriugena**; reject "(John) Duns Scotus"]

[10h] One of Cusanus's Greek manuscripts contained this ancient apophatic theologian's corpus, which Eriugena translated with extensive commentary. Charles Stang argued that this thinker adopted his name as a way of performing negative theology on himself.

ANSWER: (Pseudo-)**Dionysius** (the Areopagite) (The "Pseudo-" is unnecessary, originating for polemical reasons, as it seems "Dionysius" was probably assigned as a monastic name and not used with pseudepigraphal intentions.)

<JM - Thought: Other Philosophy>

3. **Large events primarily based around this practice in the late Edo period supposedly formed around amulets falling from the sky and which were given the name meaning *ee ja nai ka*, or "Who Cares?". In 1278, this activity caused the destruction of a bridge on the River Meuse near a shrine associated with it. Scholars including Athanasius Kircher concluded that this practice was the cure for poisonings after analyzing its use in Apulia. About a century later, a mass event of this type in (\*) Aachen preceded dozens of others throughout Europe. Hundreds of people joined a woman who couldn't stop doing this activity on the streets of Strasbourg in the largest outbreak of a phenomenon named for St. Vitus. In the 20s and 30s, many Americans participated in competitive "marathons" to see who could do this activity the longest. The belief that this activity cured spider bites is associated with the tarantella. For 10 points, name this activity including practices like the foxtrot and ballet.**

ANSWER: **dance** [accept word forms like **dancing**; accept "**dancing** mania" or "**choreomania**;" accept "St. Vitus's **Dance**" or "St. John's **Dance**;" accept "**dance/dancing** marathon(s);" accept "**tarantism**"] (The dancing "cure" in Apulia became the Tarantella, referencing the tarantula, and the shrine near the River Meuse was a church of St. Vitus.)

<JM - History: European>

This artist depicted a cow and a young girl in pink staring at each other through a fence in *Obstruction, Box Hill*, and painted three children wading in a wetland in *Field Naturalists*. For 10 points each:

[10h] Name this Australian artist, a member of the Heidelberg School. Her works, like the landscape *To the Dandenongs*, infamously sold for under a tenth the asking price of her male colleagues at exhibitions.

ANSWER: Jane **Sutherland**

[10e] The Heidelberg School artists decorated their Grosvenor Chambers studio in the Aesthetic style of this artist's *Peacock Room*. This artist used musical titles like *Arrangement in Grey and Black*, which depicts his mother.

ANSWER: James (Abbott McNeill) **Whistler**

[10m] The Australian Impressionists were influenced by this French Realist movement led by Théodore Rousseau and Charles-François Daubigny ("DOH-bin-ye"), named for a rural village once home to Jean-François Millet ("mill-AY").

ANSWER: **Barbizon** school

<JM - Arts: Painting and Sculpture>

4. In 2017, the philosopher Stephen Angle engaged in a series of published debates with other thinkers from *this philosophical school* as the lead advocate of a “progressive” version of it. Two thinkers in this school re-interpreted a key concept as an omnipresent principle of “coherence,” one of them claiming it is found in the world and the other that it is internal to the self. It’s not Platonism, but that latter thinker from this school developed the metaethical position that one who truly understands morals necessarily behaves morally, which he called the “unity of knowing and acting.” That idea’s originator, (\*) Wang Yangming, was the foremost critic of Zhu Xi’s thought in a later form of this school. This philosophical school claims that proper social behavior results in a harmony between the cosmic and natural orders in the act of “centering,” and advocates virtues like “benevolence,” “righteousness,” and “trustworthiness” as characteristics of the ideal “gentleman.” For 10 points, name this school of philosophy that follows the author of the *Analects*.

ANSWER: (Neo-)Confucianism [or Ruism, or *Rujia*] (The guidance/coherence concept is “*li*,” as in 理, not 禮.)

<JM - Thought: Other Philosophy>

Answer the following about the optics of the Dark Energy Spectroscopic Instrument, for 10 points each.

[10m] Light that leaves the optical fibers in the telescope’s focal plane is randomly oriented until it passes through a slit and then one of these devices, a mirror which returns the rays to parallel.

ANSWER: collimator

[10h] The parallel light rays are then dispersed using this kind of diffraction grating. These low-scatter devices have no physical grooves, and instead work via a periodic structure of high and low indices of refraction in dichromated gelatin.

ANSWER: VPH gratings [or volume phase holographic gratings]

[10e] Finally, the dispersed light is collected by a charge-coupled device, which consists of a bunch of these circuit components linked together. Simple examples of these components consist of two metal plates with a dielectric sandwiched between them.

ANSWER: parallel-plate capacitors [accept MOS capacitors]

<JL - Science: Physics>

5. A Pascal Greco photo-book preserves works in this medium by craftsmen like Wu Chi-Kai from its declining industry in Hong Kong. Iván Navarro commented on capital punishment with a chair made in this medium titled *You Sit, You Die*. This medium is the focus of the Kunsthalle Detroit. A form of this non-water medium was first deployed for “Hydrokinetic” sculptures by Gyula Kosice (“KOSH-it-suh”). This medium was used for the installation *greens crossing greens (to Piet Mondrian who lacked green)*. An installation of 202 objects outside a museum in (\*) Los Angeles was named for this medium by Chris Burden. This kind of “painting” refers to the technique of moving objects in a long-exposure photograph to trace lines. This medium is paired with “Space” in the name of a movement including James Turrell’s colorful works, and was championed by Dan Flavin. For 10 points, give this medium that artists can occlude to create shadows.

ANSWER: lights [accept light art, Light and Space, or luminism; accept specific types of lights such as neon or fluorescent lights; accept (street) lamps/lights, lightbulbs, or lanterns; prompt on glass by asking “which is used to create what sort of objects?”] (The Burden installation is *Urban Light*.)

<JM - Arts: Painting and Sculpture>

This writer's most famous poem laments that "I must love all dying things / And I must walk the path / given to me" before concluding "Tonight also, / the wind sweeps over the stars." For 10 points each:

[10h] Name this poet who died at 27 after suffering experimentation as a prisoner in Japan. Many Koreans memorize and use lines in speech from the "Prologue" to this poet's collection *Sky, Wind, Star, and Poem*.

ANSWER: **Yoon** Dong-Ju [accept both names in either order]

[10m] Ko Un juxtaposed "Some say they have already visited the next thousand years" with the lines "On a windy day / I am waiting for a bus" in a collection titled for these things *of the Moment*. A Kim Sowol poem titled for a specific type of these things asks to "scatter them on your way."

ANSWER: **flowers** [accept *Flowers of a/the Moment*; accept answers of "**Azaleas**"]

[10e] This Tang-era poet wrote that "jackdaws roost and then are startled" by the title phenomena in "Autumn Wind" before concluding "This entanglement in the heart / if we'd known that beforehand / we might as well have never met." He is better known for poems like "Drinking Alone by Moonlight" and "Quiet Night Thought."

ANSWER: **Li** Bai [accept both names in either order; or **Li Bo**; or **Taibai**; or **Qinglian Jushi**]

<JM - Literature: World>

6. **This theologian theorized that restitution for one's sins could only come through performing specific good deeds to counterbalance them, a principle he called "indemnity." This man's son Sean came under scrutiny after the church he founded, Rod of Iron Ministries, helped plan the January 6th Capitol Attack. In a peculiar 2004 incident, this man somehow hosted a ceremony crowning him "King of America" in the US Senate chambers. This man founded the conservative newspaper *The (\*) Washington Times* as part of his anti-Communist efforts, teaching that the Cold War was the final conflict between God and Satan. Following his book *The Divine Principle*, acolytes of this man believe he and his wife to be their "True Parents" and participate in "blessing ceremonies" to absolve their families from original sin through mass weddings. For 10 points, name this South Korean religious leader who founded the Unification Church.**

ANSWER: (Reverend) Sun-Myung **Moon** [or Yong-Myung **Moon** (accept both names in either order)]

<JM - Religion>

Synthesis of these compounds typically uses a highly reactive Rieke form of magnesium. For 10 points each:

[10e] Name this class of reagents named for a French chemist that have formula  $RMgX$ . Reacting them with organic halides is a common method of synthesizing carbon-carbon bonds.

ANSWER: **Grignard** reagents

[10h] Due to potentially unwanted carbon-carbon coupling reactions, Grignard reagents containing this compound are formed from organozinc compounds rather than organomagnesium ones. Research into use of this diamondoid compound as a "lipophilic bullet" in drug molecules began after Paul Schleyer's high-yield synthesis of it in 1957.

ANSWER: **adamantane** [or **adamantyl** group; accept **(CH)<sub>4</sub>(CH<sub>2</sub>)<sub>6</sub>**; prompt on **C<sub>10</sub>H<sub>16</sub>**; reject "adamantene"]

[10m] A dimer of this molecule is the starting point for Schleyer's adamantane synthesis. Two examples of this group are ligands in ferrocene.

ANSWER: **cyclopentadiene** [or **cyclopentadienyl**; accept **CpH**; accept **C<sub>5</sub>H<sub>6</sub>**]

<JM - Science: Chemistry>

7. **A woman reflecting on a character with this first name proclaims “I like that in a man. Fixed. Cold.” A musical whose protagonist has this first name opens the rapid piano motif (read slowly) G, F, B-flat, E-flat, high B-flat, before that character says “the challenge” is “to bring order to the whole.” A character with this first name describes “bonnet flapping, yapping” before barking like a dog and lamenting how he watches “the rest of the world from a window” while (\*) “finishing the hat.” Another character with this first name unveils a light machine called “Chromolume #7” and invites his grandmother Marie to help present it. That character with this first name sings about his self-doubt to a vision of his great-grandmother Dot in “Move On.” A 1984 musical opens and closes with two characters with this first name remarking on the possibilities of the “white” of a “blank page or canvas.” For 10 points, a Stephen Sondheim musical depicts an artist with what first name who spends Sunday in the park painting?**

ANSWER: **George** [or **Georges**; accept *Sunday in the Park with **George***]

<WJ - Arts: Other Music>

Playwright Peter Nichols has suggested that this play was the “greatest three-act hoax of the 20th century.” For 10 points each:

[10h] Name this play that largely takes the form of an absurd dialogue between characters named Mouth, Ear, Eye, Nose, Neck, and Eyebrow. The dialogue in this play is accompanied by a series of dance routines that theater historian Claude Schumacher described as “bewildering ballets.”

ANSWER: *The **Gas Heart*** [or *The **Gas-Operated Heart***; accept *Le **Cœur à gaz***]

[10m] *The Gas Heart* is a play by this Romanian-born Dadaist author of *The Approximate Man*.

ANSWER: Tristan **Tzara** [accept Samuel **Rosenstock** or **S. Samyro**]

[10e] A schism within the Dadaist movement culminated in a riot at the premier of *The Gas Heart*, after which André Breton had a falling out with Tzara and established this movement by penning its namesake 1924 manifesto.

ANSWER: **surrealism** [accept ***Surrealist Manifesto***]

<WJ - Literature: European>

8. *Description acceptable.* **Mark E. Neely’s Pulitzer-winning history *The Fate of Liberty* contextualized this action as “well-intentioned.” A dubious history by the bodyguard Ward Hill Lamon claims that, for opposing this action, an arrest warrant was issued for the Chief Justice of the Supreme Court. This decision was defended in a letter to Matthew Birchar. After writing an editorial critical of this action, Francis Scott Key’s grandson Frank Key Howard was imprisoned in Fort McHenry. A statute passed in (\*) 1863 codified this action and allowed Ambrose Burnside to arrest Ohio Copperhead Clement Vallandigham. This action, taken eight days after the Pratt Street Riots, provided the legal basis to arrest the mayor and entire city council of Baltimore. Roger Taney ruled that this action was unconstitutional in *Ex parte Merryman*. For 10 points, identify this controversial action first taken 1861 by Abraham Lincoln to allow the arbitrary arrest of southern sympathizers.**

ANSWER: Abraham Lincoln **suspending** the writ of ***habeas corpus*** [accept clear knowledge equivalents]

<CK - History: American>

This figure is often depicted in art with fellow bodhisattvas Avalokiteśvara (“uh-vuh-low-kih-TESH-vuh-ruh”) and Mahāsthāmaprāpta (“muh-hahst-hah-muh-PRAHP-tuh”) on each side of him. For 10 points each:

[10m] Name this Buddhist figure who legendarily willed a heavenly realm into existence and made 48 vows, including that anyone who devotes mere moments of attention to his name will be reborn there.

ANSWER: **Amitābha** [or **Amitāyus**; or **Ēmituófó**; or **Amida Butsu**; or **Amita Bul**; or **Ōpakmé**; or **Tsépakmé**]

[10h] Popular in contemporary Japan, this Buddhist school chants Amitābha’s name to be reborn in Sukhāvātī in the practice of *nianfo*. The monks Shinran and Hōnen founded this Pure Land tradition’s major sects.

ANSWER: **Shin** Buddhism [or **Jōdo** Buddhism; or **Jōdo-shū**; or Jōdo **Shinshū**; prompt on True Pure Land Buddhism]

[10e] Sukhāvātī is commonly referred to as *this* kind of Pure Land. Historically, this word was used in China for Central Asia and India, as it was for a Wu Cheng’en novel titled for a *Journey to this word*.

ANSWER: **West**(ern) [or **Xīfāng**; or **Xiyu**; accept “**West**ern Pure Land”]

<JM - Religion>

9. **This adjective names a school of criticism originating with Jane Bennett’s 2010 book *Vibrant Matter*, incorporating the “uncanny anthropocene” and speculative realism, called this type of materialism. A Harold Veeseer book outlines the principles of a movement named for this adjective, including that “sub-literary” texts are essential to criticism. T. S. Eliot’s “objective correlative” influenced a school of formalist scholars designated with this adjective that rejected analyses based on readers’ reactions and authorial intent in essays on “The (\*) Affective” and “Intentional” fallacies. Sometimes called “cultural poetics,” this form of “historicism” was popularized by Stephen Greenblatt. The aforementioned William Wimsatt and Monroe Beardsley papers were foundational to a movement called this type of “criticism.” Charles Beard and Thorstein Veblen helped found an institution nicknamed the “University in Exile,” a School for Social Research named for this word. For 10 points, Ezra Pound’s slogan says to “Make it” what adjective?**

ANSWER: **new** [accept **New** Materialism, **New** Criticism, **New** Historicism, or The **New** School for Social Research]

<JM - Thought: Soft Social Science>

Answer the following about some colorful jazz musicians from the bebop era, for 10 points each:

[10m] Despite shockingly not being related, a trumpeter nicknamed “Blue” with this last name collaborated with the brothers “Red” and “Whitey,” who also had this last name, on the album *Get Those Elephants Out’a Here*. A singer with this last name recorded the album *Mingus* and worked with Jaco Pastorius on the album *Hejira*.

ANSWER: **Mitchell** (The singer is Joni Mitchell.)

[10h] This colorfully-nicknamed musician played the piano in Miles Davis’s “First Great Quintet.” He helped popularize block-chord soloing, distinctively playing a perfect fifth between octave-doubled melody notes even when dissonant.

ANSWER: (William McKinley) “Red” **Garland** (Jr.)

[10e] Grant Green played this instrument, whose early jazz greats included Charlie Christian and Django Reinhardt.

ANSWER: (electric) **guitar**

<JM - Arts: Jazz>

10. **When the symmetry factor is one-half, an equation containing this quantity can be rearranged to express this quantity as a prefactor times an inverse hyperbolic sine function in the Helmholtz limit. When this quantity is small, it can be approximated as polarization resistance times corrosion current. This quantity can be reduced in lithium-air batteries by using a mediator. This quantity times  $zF$  over  $RT$  appears in both exponentials of an equation for the ratio between the observed and exchange (\*) current density.** That equation named for Butler and Volmer reduces to the Tafel equation when this quantity is large. The ratio of thermodynamic voltage to this quantity equals voltage efficiency. This quantity is assumed to be zero in the Nernst equation. For 10 points, name this quantity which measures the difference between the reduction potential of a half-reaction and the potential at which the reduction actually occurs.

ANSWER: **overpotential** [prompt on potential alone until “reduction potential;” reject “redox potential” and “cell potential” and other modified forms of “potential”]

<DE - Science: Chemistry>

James Beard Award-winning chef Sean Sherman calls this dish “everything Native American food isn’t,” and like other activists, calls it a symbol of colonial oppression linked to Native health disparities. For 10 points each: [10m] Name this iconic but controversial dish that often symbolizes pan-Indian identity and resilience. Historically, it involved repurposing the few palatable non-cheese ingredients in government-issued “commodity food” bundles.

ANSWER: **frybread**

[10e] This Indian nation with a huge reservation in the Four Corners claims they invented frybread on their “Long Walk.” The term “code-talker” is most associated with members of this tribe who served during World War II.

ANSWER: **Diné** or **Navajo** [accept either underlined portion or **Naabeehó**] (While “Navajo” is not the preferred endonym, it has been repeatedly reaffirmed as an official name for the tribe, mainly out of convenience.)

[10h] Suzan, a prominent anti-frybread campaigner, shares this surname with a leader of the Four Mothers Society, also called “Crazy Snake,” who led anti-allotment traditionalists against the “progressive” chief Pleasant Porter.

ANSWER: (Suzan and Chitto) **Harjo** [prompt on Jones by asking “the Creek leader sometimes called ‘Bill Jones’ or ‘Crazy Snake’ is better known by what other surname?”] (Suzan Harjo was also the first indigenous activist to actually sue the Washington Commanders over their former name.)

<JG - History: American>

11. **An epilogue by this novelist addresses the “dissatisfied reader” by concluding that there “are such moments in life... One can but point to them—and pass them by.” In another novel by this author, a character says “what matters is that twice two make four and the rest is all rubbish.” In a novel by this author, the protagonist confesses his love after hearing his ex-wife died in Paris, only find Varvara sitting at home wanting money, prompting Liza to leave (\*) Lavretsky and join a convent. In a novel by this author, a character disappoints his sentimental father by saying it doesn’t matter where one is born while traveling to Marino. In that novel by this author, Pavel duels another character after he kisses Fenechka, and a character contracts typhus after cutting his finger during an autopsy. That character, Bazarov, earlier discusses nihilism with Arkady Kirsanov. For 10 points, name this Russian author of *Home of the Gentry* and *Fathers and Sons*.**

ANSWER: Ivan (Sergeyevich) **Turgenev** (“toor-GYAYN-yiff”)

<JM - Literature: European>

A monumental book by this thinker examines the intellectual history of India, Greece, and early modern Europe to claim that there can only be roughly 3 to 6 competing schools of thought in a given milieu. For 10 points each:

[10h] Give this author who argued that the title discipline's evolution is best explained through dynamics of attention and interpersonal conflict among members of intellectual networks in *The Sociology of Philosophies*.

ANSWER: Randall **Collins**

[10m] This thinker argued that disciplinary boundaries aren't stable or ahistorical in "Sociology and Philosophy in France." He deployed the *habitus-doxa* dichotomy in works like *Distinction* and *The Field of Cultural Production*.

ANSWER: Pierre **Bourdieu** ("bor-DYOO")

[10e] This thinker complicated the Kantian account of a priori knowledge by observing that different social conditions impute distinct content to mental categories in *The Elementary Forms of Religious Life*.

ANSWER: (David) Émile **Durkheim** ("doo-KEM")

<JM - Thought: Soft Social Science>

- HALFTIME -

12. **Low numbers of sulfate and pyruvate groups characterize this substance's "low EEO" form, which can be used for bacterial typing in techniques like CHEF. A common error made while removing this substance can be avoided by checking for a glycerol-like consistency in a solvent before taking a sample out of a heat block. Spin columns can become blocked when this substance is not fully dissolved due to insufficient exposure to Buffer QG. Intense guanidinium thiocyanate peaks can be observed when too much of this substance is (\*) excised alongside a sample. A powdered form of this substance is added to TAE or TBE buffer then heated in a microwave to make its most commonly used form. Extracting DNA from this substance begins with referencing a ladder to confirm the isolate length, then cutting out an illuminated band out of this substance with a razor. For 10 points, name this substance isolated from seaweed which is commonly used to form gels in DNA gel electrophoresis.**

ANSWER: **agarose** gel [accept **sepharose**; prompt on **agar**, prompt on **gel**]

<SS - Science: Biology>

Answer the following about works of "hack writing" or "pulp fiction," for 10 points each:

[10h] This novel depicts London's "hack writing" scene by contrasting its two central author protagonists: Jasper Milvain, who prioritizes financial gain and social prestige over artistic integrity, and Edwin Reardon, whose works are critically hailed but financially unsuccessful.

ANSWER: ***New Grub Street*** (by George Gissing)

[10m] This term refers to cheap literature serialized during the Victorian Era. These works often followed criminals and supernatural creatures such as Dick Turpin and Varney the Vampire.

ANSWER: **penny dreadful** [or **penny horrible** or **penny awful** or **penny blood**]

[10e] This character who first appeared in the penny dreadful *The String of Pearls* canonically owns a barber shop on Fleet Street where he kills his clients with a razor and delivers their bodies to the baker Mrs. Lovett.

ANSWER: Sweeney **Todd** [prompt on **Sweeney**]

<EL - Literature: British>



13. **The ethnographer Gunther Tessmann described homosexuality as the “national custom” of the Bafia people in what is now this country, where modern moral panics targeted LGBT activists like Joel Nana. French intelligence poisoned its anti-colonial leader Félix-Roland Moumié (“MOOM-ee-AY”) in Geneva with thallium. A go-to protest tactic in this country involves work stoppages called “Operation Ghost Town.” Separatists in this country often kidnap John Fru Ndi, who leads its (\*) Social Democratic Front opposition party. A border dispute with this country’s western neighbor was resolved in the Greentree Agreement. In 2017, rebels under the feuding Samuel Ikome Sako and Julius Sisuk Ayuk Tabe declared “Ambazonia’s” independence from this country. Mistreatment of one language’s speakers in this country, once led by Ahmadou Ahidjo, turned its “Anglophone Problem” into a “crisis.” The Bakassi peninsula’s eastern claimant is—for 10 points—what country long led by Paul Biya, formed by merging French and British colonies with capital Yaoundé (“YAH-ooohn-DAY”)?**  
ANSWER: (Republic of) **Cameroon** [or (*République du*) **Cameroun**]  
<JG - History: World>

In *The American Evasion of Philosophy*, this thinker observes the prescience of an earlier thinker in rejecting the idea of “givens” in favor of understanding experience in terms of “takens.” For 10 points each:

[10h] Name this American philosopher, an expert on pragmatism and transcendentalism who collaborated with bell hooks on *Breaking Bread*.

ANSWER: Cornel (Ronald) **West**

[10e] The clever reframing of “takens” comes from this pragmatist philosopher, who founded the UChicago Lab School as part of the same pedagogical concern he developed in *Democracy and Education*.

ANSWER: John **Dewey**

[10m] West saw Dewey’s idea of “takens” as presaging this philosopher’s essay “The Myth of the Given,” which problematized the assumption that knowledge is built upon the foundation of sense perception.

ANSWER: Wilfred (Stalker) **Sellars**

<JM - Thought: Philosophy>

14. **A comedy by Rudolf Besier popularized an anecdote in which a poet tells his wife that only this character understands the meaning of a difficult passage that the poet himself has since forgotten. In a verse drama’s “Evening” act, Luigi justifies an assassination attempt by claiming to hear this character’s voice through the song “A king lived long ago.” A statement about this character ends a song that opens, “The year’s at the spring.” A reference to those “doomed remain a germ” of this character from Book III of *Sordello* is echoed in a poem that compares this character to one who molds (\*) “laughing loves” and “skull-things in order grim” upon a wheel. Another poem ends with the observation that this character “has not said a word!” after the speaker strangles Porphyria with her hair. For 10 points, a “song” from *Pippa Passes* concludes that “all’s right with the world” because what figure is “in his heaven?”**  
ANSWER: **God** [or obvious equivalents] (The first line references the quip “Well, Miss Barrett, when that passage was written only God and Robert Browning understood it. Now only God understands it” from *The Barretts of Wimpole Street*; other clues are from *Pippa Passes*, *Sordello*, “Rabbi Ben Ezra” and “Porphyria’s Lover.”)  
<CS - Literature: British>

At the age of 27, Paul Robeson premiered in this director's magnum opus *Body and Soul*. For 10 points each:  
[10h] Name this man who turned his novel *The Homesteader* into the first feature-length "race film" by a black director. His *Within Our Gates* is considered a response to D.W. Griffith's *The Birth of a Nation*.

ANSWER: Oscar (Devereaux) **Micheaux** ("mee-SHOW")

[10m] A perpetually-delayed HBO biopic about Micheaux is slated to star this oft-compared director of *For Colored Girls*, who Spike Lee notably accused of "buffoonery."

ANSWER: Tyler **Perry** [or Emmitt **Perry** Jr.]

[10e] The buffoonery of *Bad Boys II* is interrupted by an oddly profound shot in which this actor holds out two pistols in front of a burning cross while casting off a white robe. This actor played the leads in *Six Degrees of Separation*, *Ali*, and *I, Robot*.

ANSWER: Will **Smith** [or Willard Carroll **Smith** II; prompt on The Fresh Prince]

<CS - Arts: Film>

15. **This author tried to "transcend" the "separation of pure philosophy" and the substantive "scientific realm" in a work that uses "the strength of the subject to break through the fallacy of constitutive subjectivity" in rethinking an earlier philosopher's system. This philosopher critiqued the irrational authoritarianism of the *Los Angeles Times* astrology column in "The Stars Down to Earth," building on his earlier "Thesis Against Occultism." This thinker wrote aphorisms like "the splinter in your own eye is the best magnifying glass" and (\*) "life does not live" in a book of "Reflections from Damaged Life" whose title reverses an ethical text by Aristotle. This thinker argued against the progressive directionality of the title system in *Negative Dialectics* and lamented that it is "barbaric" to "write poetry after Auschwitz." For 10 points, name this author of *Minima Moralia*, a Frankfurt School philosopher who collaborated with Max Horkheimer on *Dialectic of Enlightenment*.**

ANSWER: Theodor (Wiesengrund) **Adorno** [or Theodor (Ludwig) **Wiesengrund**; or Theodor **Adorno**-Wiesengrund]

<JM - Thought: Philosophy>

An example of geitonogamy is when this process occurs between ramets of the same genet in clonal colonies, like the distinct trunks of the quaking aspen stand Pando. For 10 points each:

[10e] Name this process that may be assisted by wind or animals. In self-incompatible species, this process fails to cause fertilization if it occurs from the stamens to the carpel of the same plant.

ANSWER: **pollination**

[10h] To prevent self-pollination, clonal growth may favor the evolution of this trait in which the stamens and the carpel have different lengths. This trait often occurs in "pin" and "thrum" forms.

ANSWER: **herkogamy** [accept **heterostyly**, **distyly**, or **tristyly**]

[10m] Because clonal plants prioritize vegetative over sexual reproduction, they are often better at tolerating this general kind of rapid, temporary change in the environment. A dubious but once-widely believed hypothesis posited that diversity peaks at intermediate levels of this phenomenon.

ANSWER: **disturbances**

<JM - Science: Biology>

16. In the 19th-century, a “Baronial” style of revival architecture became popular throughout this country. Before designing a house in this country, an architect observed the daily life of the commissioner’s family to see “functional issues” he could solve. It’s not Germany, but a postmodern architect from this country designed the iconic Neue Staatsgalerie (“NOY-uh SHTATS-gal-ur-ee”) and buildings for the State University of Music and the Performing Arts in Stuttgart (“SHTOOTT-gart”). Critics speculate that an iconic painting from this country is represented by the “trigger panels” of its parliament building, designed by the (\*) Catalan architect Enric Miralles. Japanese craftsmanship inspired an architect from this country to design a new library for his former school. That designer of this country’s Willow Tearooms is Charles Rennie Mackintosh. For 10 points, name this country home to James Stirling and buildings like Balmoral Castle and Glasgow Cathedral.  
ANSWER: **Scotland** [or *Alba*; prompt on “The United Kingdom” or “Great Britain,” reject “England,” “Wales,” etc.]

<JM - Arts: Architecture>

The mouth of this river was the base of operations for pirates called *bawarij*, and Genghis Khan finally caught and defeated Jalāl al-Dīn Mingburnū at a battle named for this river. For 10 points each:

[10m] Name this river, which flows through a region conquered by the Umayyad general Muḥammad bin Qāsim. A later conquest of that region along this river was supposedly announced by the one-word telegram, “*peccavi*” (“peh-KAH-wee”).

ANSWER: **Indus** River (“*Peccavi*” is Latin for “I have sinned,” i.e., “I have Sindh.”)

[10e] The Umayyad conquest of the Sindh region along the Indus River is recounted in the *Chach Nama*, which is named for a Hindu dynasty of this highest, priestly caste that tried to resist Muḥammad bin Qāsim.

ANSWER: **Brahmin** [or **Brahman** or **Brāhmana**]

[10h] In Rajput legends, the folk hero Bappa Rawal fought with this kingdom’s Nagabhata II to repel Arab invaders. This kingdom fought the Rashtrakuta and Pala Empires over Kannauj in the Tripartite Competition.

ANSWER: **Gurjara-Pratihara** Kingdom [accept either underlined portion]

<VA - History: World>

17. This country consumes 75% of all the minty Italian digestif Fernet-Branca (“fer-NET BRAHN-kuh”) produced worldwide, since its signature cocktail, the “Fernando” or “Fernandito,” mixes it with cola. That drink comes from this country’s second largest city, where the “reduction” preserved as the Jesuit Block is a World Heritage Site. This country was the *first* to develop a “civilian” settlement in its (\*) Antarctic land claims, where Emilio Palma became the first human born on the continent in Esperanza Base. Hundreds of prehistoric stenciled paintings are found in this country’s “Cave of the Hands” in its Santa Cruz province. This country’s remote Chubut province is home to the descendants of 19th-century Welsh settlers. This country’s national symbol is said to be inspired by the Incan deity Inti, and is named “The Sun of May.” For 10 points, name this South American country named for its association with silver.

ANSWER: (República) **Argentina** [or The **Argentine** Republic] (The second-largest city is Córdoba.)

<JM - Geography>

Answer the following about Native American contributions to American theatre, for 10 points each:

[10e] In the 1970s, Hanay Geiogomah founded this state's Native American Theater Ensemble, which produced his landmark play *Body Indian*. The play *Green Grow the Lilacs* by Cherokee playwright Lynn Riggs was adapted into a Rodgers and Hammerstein musical titled for this state.

ANSWER: **Oklahoma** [or **OK**]

[10m] The Cheyenne housekeeper Johnna sings "this is the way the world ends" to her pill-addicted employer Violet Weston at the end of this 2007 play by Tracy Letts, set in the title region of Oklahoma.

ANSWER: **August: Osage County**

[10h] Three white actors hire a white actress pretending to be Native American in a 2015 play titled for this event by the Lakota playwright Larissa FastHorse. This event is also the setting of Stephen Karam's play *The Humans*.

ANSWER: **Thanksgiving** [accept *The Thanksgiving Play*]

<TM - Literature: American>

18. **While attending Bowling Green State University, this composer, who then had no classical music background, was encouraged by Judith Bentley and Robert Spano to premiere a debut piece titled *Night Creatures*. Spano later conducted soloist Roberto Díaz at the premiere of this composer's Viola Concerto, which won Best Classical Contemporary Composition at the 2018 Grammys. That concerto was the second of (\*) three Grammy-winning concerti by this composer, the third being the 2020 Harp Concerto, and the first, dedicated to Colin Currie, being the 2010 Percussion Concerto. This composer paid homage to the Curtis Institute of Music by using its address number "1726" to title the first movement of a piece that won the 2010 Pulitzer Prize for Music. For 10 points, name this American composer who dedicated her 2008 Violin Concerto to Hilary Hahn.**

ANSWER: Jennifer (Elaine) **Higdon**

<WJ - Arts: Classical Music>

Experiments by Karen Wynn at Yale found that these people were more likely to seek out puppets that liked the same food as them, and seemed to prefer puppets that punished those with different tastes. For 10 points each:

[10e] Give these people. In an experiment by John Watson and Rosalie Rayner, one of these people called "Little Albert" was conditioned to fear a white rat.

ANSWER: **infants** [or equivalents like "**babies**;" prompt on children and equivalents]

[10m] Mary Ainsworth developed the "strange situation" methods for working with infants to test this theory of psychological development, originating with John Bowlby, which centers on the relationship to a primary caregiver.

ANSWER: **attachment** theory

[10h] While Ainsworth classified responses to "strange situation" experiments as secure, avoidant, or ambivalent, her student Mary Main introduced this fourth classification for subjects who exhibited no smooth correlation between behavior and caregiver proximity.

ANSWER: **disorganized** attachment [or **disoriented** attachment; or simply **D**]

<JM - Hard Social Science: Psychology>

19. **One form of this quantity contains a factor of 1 over 1 minus .378 times e over p, which can be approximated as one plus the mixing ratio over 6. A widely-used form of this quantity linearly combines three empirical forms of this quantity, including its “black globe” type. The sign of the spatial derivative of one form of this quantity determines the instability of unsaturated air parcels. This quantity times a ratio of (\*) pressures raised to R over c-sub-p gives its potential form, which represents the value of this quantity obtained via an adiabatic process. A form of this value for which a moist air parcel will have the same pressure and density as a dry air parcel is known as its virtual type. The change in this quantity with height is given by the lapse rate. This quantity increases with height in inversions. For 10 points, name this quantity whose “wet-bulb” form is lower than its “dry-bulb” form due to evaporative cooling.**

ANSWER: **temperature** [accept virtual **temperature**; accept dry-bulb **temperature**; accept wet-bulb **temperature**; accept wet-bulb globe **temperature**; accept potential **temperature**; prompt on **WBGT**; prompt on **T**; prompt on **theta**]

<AF - Science: Earth/Environmental>

The fact that this pianist left Paris early in October 1784 casts doubt on the idea that Mozart wrote his 18th Piano Concerto for her. For 10 points each:

[10h] Name this musician whose blindness was temporarily alleviated by Franz Mesmer. The E-flat major *Sicilienne* attributed to this composer and played at the 2018 Royal Wedding is really a hoax by Samuel Dushkin.

ANSWER: Maria Theresia von **Paradis**

[10m] Dushkin based the *Sicilienne* on a *Larghetto* from a F major violin sonata by a member of this family. A soprano born into this family married Mozart.

ANSWER: **Weber** family (“VAY-bur”) [or **Webers**; accept Carl Maria (Friedrich Ernst) von **Weber** and (Maria) Constanze (Cäcilia Josepha Johanna Aloysia) **Weber**]

[10e] Paradis’s gender and prodigy status naturally draw comparisons to her contemporary Nannerl Mozart, who had this familial relationship to Wolfgang. Composer Fanny Mendelssohn bore this relation to the composer Felix.

ANSWER: she was his **sister** [or obvious equivalents indicating they were **siblings** or brother and **sister**]

<CS - Arts: Classical Music>

20. **The Manapa-Tarhunta Letter’s mention of the “the one of entrapment” may suggest a Hittite origin for this deity. According to *De Dea Syria*, an unusually bearded image of this deity at a temple to Atargatis moved spontaneously and was used for divination. Gauls revered this god as “the great horseman” Atepomarus at Mauvières (“moh-VYAIR”), and often syncretized him with Belenus. A cult center to this deity was founded where a swarm of field mice ate all of the settlers’ leather. The Theophania festival celebrated the return of this deity, often called (\*) “Smintheus” in Homer, from yearly stays in Hyperborea. After falling for a woman who successfully wrestled a lion, this deity abducted her to the future site of Cyrene. Theodosius I’s anti-paganism campaigns destroyed a cult center of this deity that was home to the Castalian Spring and a priestess called “Pythia.” For 10 points, name this Greco-Roman deity who was thought to bring prophecy through the Oracle of Delphi.**

ANSWER: **Apollo** [accept **Apollo** Helios or **Apollo** Sol]

<JM - History: Ancient/Other (Mythology)> (the “cult center” in the fourth sentence is Hamaxitus)

Phytoplankton functional type classifications in ocean models often distinguish between “silicifiers” and organisms that build shells out of this ionic compound, like foraminifera and coccolithophores. For 10 points each:

[10e] Name this compound that makes up most of limestone. Ocean acidification makes it harder for organisms to make this compound.

ANSWER: **calcium carbonate** [or **CaCO<sub>3</sub>**; accept **calcite**]

[10h] Because seawater calcium and silicon concentrations are driven by biological processes, they do not have this property of following the principle of constant proportions. Ions like sodium and chlorine do have this property, allowing a standardized definition of salinity.

ANSWER: **conservative** ions [or word forms]

[10m] Seawater salinity is most often defined as either a function of chlorinity or this physical variable, which is used to calculate a “practical” proxy. Depth, temperature, and this variable, depth are measured by a CTD.

ANSWER: electrical **conductivity** [accept **specific conductance**; accept **conductivity** ratio or **R<sub>15</sub>**; prompt on **C** or **R**]

<SK - Science: Earth/Environmental>

21. **A father who lives in this city professes his belief that people’s “tendency to brood about stuff” is “not productive,” and advises people to “maybe, get up offa your rear end and do something.” A play titled for a neighborhood in this city partly centers on the memory of a veteran who killed himself after being discharged for murdering civilians during the Korean War. The Stoller family, consisting of (\*) Russ, Bev, and Kenneth, contemplates moving out of a neighborhood in this city in a 2010 play by Bruce Norris. A woman who lives in this city is given a nickname meaning “one for whom bread is not enough” by her boyfriend, who criticizes her for straightening her hair and tries to convince her to move to Nigeria with him. In a play set in this city, the Clybourne Park Improvement Association sends Karl Lindner to buy back a property from the Younger family. Lorraine Hansberry’s play *A Raisin in the Sun* is set in—for 10 points—what city’s South Side?**

ANSWER: **Chicago**, Illinois

<WJ - Literature: American>

A 2008 book by Sigrid Schmalzer ties modern advocacy of this scientific theory to Chinese nationalism. For 10 points each:

[10h] Identify this theory, evidence for which was sought by a series of 1922 to 1928 expeditions by Roy Chapman Andrews and Henry Fairfield Osborn that also discovered the first fossilized dinosaur eggs.

ANSWER: **Out of Asia** theory [or obvious equivalents indicating the theorized **Asian origins** of modern **humans**]

[10e] Schmalzer’s book is named for *The People’s* version of this subspecies of *Homo erectus* first discovered in Zhoukoudian (“joh-KOH-dyen”) Cave and named for its discovery near the Chinese capital.

ANSWER: **Peking Man** [or *Homo erectus* **pekinensis**]

[10m] In China, Peking Man is also used to posit a state of “primitive communism” that ended in the “Neolithic” and “Urban Revolutions” first described in *Man Makes Himself*, a book by this Marxist excavator of Skara Brae.

ANSWER: Vere Gordon **Childe**

<CS - History: Other>

22. **This thinker names the prediction that assuming a stable equilibrium allows for deriving useful comparative statics results. In a “2 by 2 by 2” model, this economist is the second namesake of the prediction that rising relative prices will cause a fall in real returns to the less intensively used factor of productions and rise for the other factor. In a situation modeled by the Lerner diagram, this economist is credited with proving the equalization of factor prices. The last two results apply to the Heckscher-Ohlin model, with the latter named for Wolfgang (\*) Stolper and this economist. This thinker discussed the consequences of his economic correspondence principle and emphasized constrained optimization in his *Foundations of Economic Analysis*. For 10 points, an “Introductory Analysis” is provided in what first American Economics Nobel laureate’s 1948 textbook *Economics*?**

ANSWER: Paul Samuelson [or Paul Anthony Samuelson; accept Samuelson’s correspondence principle; accept Stolper-Samuelson theorem; accept Heckscher-Ohlin-Samuelson model]

<CS - Hard Social Science: Economics>

In some post-Columbian myths, the first horse turns out to have been this animal’s estranged grandson, while in a Navajo story it uses magic to make Changing Bear evil so he can have sex with his wife. For 10 points each: [10e] Name this animal which, along with the Raven, appears a trickster deity in a wide range of western North American indigenous myth systems.

ANSWER: Coyote [or mq’ii]

[10h] In this group’s mythology, a coyote named Kunula created the sun and moon after he retrieved his dead sons in a bag and later opened it. These people and others in their region venerate a red-beaked healer named Kuksu.

ANSWER: Pomo people

[10m] Central to Pomo tradition, these buildings are found across a range of North American cultures. These structures are used to create a hot, dry, and sometimes smoky environment for ritual use.

ANSWER: sweathouses [or sweat lodges]

<JM - Geography (Mythology)>