SOUTHEAST-MIDWEST HOUSEWRITE: PACKET 1

NOTE: THESE TOSSUPS AND BONUSES ARE PAIRED. IF THE TOSSUP GOES DEAD, SKIP THE ASSOCIATED BONUS. DO **NOT** GO BACK AND READ ANY BONUSES THAT ARE SKIPPED.

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1. In a film from this country, a woman who receives a pink watch as a gift starts dating Ben, who claims to destroy greenhouses for pleasure. In another film from this country, a wealthy woman who was forced to read erotic literature by her uncle as a child admits her love to a pickpocket who cons her by posing as the title character. A single three-minute shot in a film from this country tracks a (*) hallway fight where an entire group is defeated by a hammer-wielding man. A 2019 film from this country of *The Handmaiden* and the *Vengeance* trilogy includes a violent attack on a birthday party by a man living in the basement of the Park family's home. For 10 points, name this home country of the director of *Parasite*, Bong Joon-Ho.
ANSWER: **South Korea** [or **Republic of Korea** or **ROK** or **Hanguk** or **Tehan-minguk**; prompt on Korea; do NOT accept or prompt on "North Korea" or "Democratic People's Republic of Korea" or "DPRK"] (The first clue refers to *Burning* by Lee Chang-dong.)
<Prabhakar, Film> [Ed. Strombeck]

1. A radio play adapting this character's story stars Tracy Bacon, who starts a romantic relationship with one of the creators of this character. For 10 points each:
[H] Name this character. At the end of the novel in which he appears, one of the protagonists impersonating this magician is rumored to later be jumping off the Empire State Building.
ANSWER: The **Escapist** [accept Tom **Mayflower**; prompt on the superhero from *The Amazing Adventure of Kavalier and Clay*]
[E] The Escapist is created by the protagonists of *The Amazing Adventures of Kavalier and Clay* for works in this medium. Many superheroes like The Escapist were created during this medium's "Golden Age."
ANSWER: **comic** books [prompt on graphic novels]
[M] In *Kavalier and Clay*, Sheldon Anapol hesitates about featuring this person being punched on a cover of an issue of The Escapist. Professor Jack Gladney studies this person in Don DeLillo's *White Noise*.
ANSWER: Adolf **Hitler** [accept **Hitler** Studies]
<Kala, Long Fiction> [Ed. Leahy]

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2. A catalyst of boron and this element converts alkynes to *cis*-alkenes; that catalyst comes in P-1 and P-2 forms. It's not cobalt or molybdenum, but an alkane can be formed from a thioacetal using a catalyst of this element in a desulfurization reaction. The stereospecificity of Negishi coupling is lower when this element is used as a catalyst instead of palladium. The shape memory effect is exhibited by an alloy of (*) titanium and this metal, which is used in stents. This element's tetracarbonyl is decomposed to extract it in the Mond process. This is the heaviest ferromagnetic transition metal. A hydrogenation catalyst composed of aluminum and this element is named for William Raney. This element's "metal hydride" battery has largely supplanted a battery using this metal and cadmium. For 10 points, name this metal with symbol Ni.
ANSWER: **nickel** [or **Ni**; accept Raney **nickel**]
<Valan, Chemistry> [Ed. Lei]

2. According to this theory, marriage is a form of transaction between families in which wives are the "repayment." For 10 points each:
[H] Name this theory developed by Claude Lévi-Strauss, according to which people facilitate the formation of social networks through exogamy ("ecks-AH-guh-mee").
ANSWER: **alliance** theory [accept the **general theory of exchange**s]
[M] Alliance theory is part of the shared relationships of cultures in this anthropological paradigm formulated by Lévi-Strauss. This paradigm attempts to discover the underlying rules governing all societies and their inhabitants.
ANSWER: **structural**ism [or **structural** anthropology; do NOT accept or prompt on "structural functionalism"]
[E] Part of Lévi-Strauss's work on structuralism was examining how some of these stories could be so similar across cultures. Some examples of elements shared by many of these stories are trickster gods and world floods.
ANSWER: **myth**s [or **mythologies**; prompt on legends; prompt on tales; prompt on folktales]
<Valan/Ashbrook, Anthropology> [Edited]

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3. One character in this play describes art as giving "form to the formless" while drinking an ice cream soda. That character states that he detests the word "home" before smashing a bottle. In this play, a character is told that Miriam will leave him after he mocks another character for practicing for a contest with a pillow. Two characters in this play debate whether Darwin and Napoleon were (*) "men of magnitude." A character in this play titles an essay "A World Without Collisions" after learning of his father's return from the hospital. That character spits at a Black servant before leaving his family's tea shop, leaving two characters to ballroom dance at this play's end. For 10 points, name this play centering on Hally and the servants Sam and Willie, by Athol Fugard ("foo-guard").
ANSWER: ***"Master Harold"…and the Boys***
<Kala, Drama> [Ed. Leahy]

3. Answer the following about wetlands designated internationally important by the Ramsar Convention, for 10 points each.
[H] This island country's Zapata Swamp is a Ramsar wetland protecting species like the bee hummingbird, the world's smallest bird. Flamingos can be found at El Bagá Nature Park in this country's Jardines del Rey ("HAR-deen-es del ray") archipelago.
ANSWER: Republic of **Cuba**
[M] Many sea turtle species breed in this country's Bundala National Park, the first in this country to be declared a Ramsar wetland. Many tourists come to see the World's End cliff in this country, which is also home to Adam's Bridge.
ANSWER: Democratic Socialist Republic of **Sri Lanka**
[E] The peat bogs and glacial lakes of this country's Tatra National Park are both Ramsar wetlands. Another Ramsar wetland in this country is the mouth of its Vistula River, which runs through this country's capital, Warsaw.
ANSWER: Republic of **Poland**
<Sareddy, Geography> [Ed. Prabhakar]

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4. A union leader in this industry nicknamed "Seven Fingers" advocated the creation of the Agbayani Village for retired workers. A strike of workers in this industry was ended by agreements signed in The Forty Acres building. It isn't related to automobiles, but workers in this industry began a strike in 1970 after their employers signed "sweetheart contracts" with the Teamsters. Philip Vera Cruz resigned after a union leader in this industry met with (*) Ferdinand Marcos. The Bracero program employed workers in this industry. Filipino and Mexican workers in this industry united in a strike in Delano, California. A labor leader in this industry coined the slogan "Sí, se puede." For 10 points, Dolores Huerta and Cesar Chavez led workers in which industry?
ANSWER: **farm**ing industry [or **agriculture**; accept **farm**worker; accept **farm** laborer; accept **farm**ers; accept **agricultural** laborer; accept **grape**s; accept **grape** farmers] (the first line refers to Larry Itliong)
<Nageswaran, American History> [Edited]

4. The Poynting factor is used to correct for this quantity at high pressures in a vapor-liquid equilibrium. For 10 points each:
[H] Name this quantity, which is equal to the thermodynamic activity times the standard pressure. According to the Lewis-Randall rule, this value for a solution component is proportional to its mole fraction.
ANSWER: **fugacity**
[E] Fugacity is equal to pressure for substances described by this law. It is usually formulated as PV equals nRT.
ANSWER: **ideal gas** law
[M] A "factor" named for this word symbolized Z is equal to PV divided by nRT and is equal to one for all ideal gases. This term refers to the relative change in volume due to a change in pressure.
ANSWER: **compressibility** factor [do NOT accept or prompt on "compression"]
<Valan, Chemistry> [Ed. Lei]

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5. As punishment for stealing *xirang* ("shee-rahng") during one task, Gun ("gwin") was banished to and executed at one of these features named for a feather. Gun was appointed to that task by Yao on the advice of four of these entities. Gilgamesh's father visited a cave named for one of these other features. Gilgamesh encountered two scorpion-men at one of these features named (*) Mashu. The Shinto goddess of one of these features is symbolized by the sakura. Shiva lives at one of these features named Kailash while another one of these features is said to be the center of the universe in Hinduism and is known as Meru. For 10 points, what geographic features are exemplified in mythology by Fuji and Olympus?
ANSWER: **mountain**s [accept **mount**s; accept Feather **Mountain**; accept the **Mountain** Cave; accept **Mount** Kailash; accept **Mount** Meru; accept **Mount** Fuji; accept **Mount** Olympus; accept **Mashu** before mentioned; accept **Kailash** alone before mentioned; accept **Meru** alone before mentioned; accept **Fuji** alone before mentioned; prompt on volcanoes by asking "volcanoes are examples of what general geographic features?"]
<Prabhakar, Myth> [Ed. Groger]

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5. This empire won the Battle of Basian under the command of David Soslan. For 10 points each:
[M] Name this empire ruled by David Soslan's wife, Tamar the Great, who oversaw this empire's golden age. Tamar's great-grandfather, David the Builder, captured this empire's capital from Muslim forces in 1121.
ANSWER: Kingdom of **Georgia** [or **Georgia**n Empire or **Sakartvelo**]
[H] The Battle of Basian was part of Tamar's expansionist campaigns against an empire ruled by this dynasty. The vizier Nizam al-Mulk helped this dynasty's ruler Alp Arslan invade and subjugate Georgia in the late 11th century.
ANSWER: **Seljuk** Turks [or **Seljuk** Empire or **Seljuk**s; prompt on Turks]
[E] Tamar was also able to secure special privileges for Georgians in the Holy Land after it was conquered by this founder of the Ayyubid dynasty. This sultan later fought Richard the Lionheart during the Third Crusade.
ANSWER: **Saladin** [or An-Nasir **Salah-ad-din** Yusuf ibn Ayyub]
<Karthik/Prabhakar, World History> [Ed. Prabhakar]

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6. In a concerto by this composer, a G minor slow movement transitions *attacca* into the *Allegro vivacissimo* finale, whose rapid melody begins with the four note phrase *[read slowly]* "D, D C-sharp D." Another concerto by this composer begins with the horns playing the descending fortissimo phrase "F D-flat C B-flat" three times before the piano enters with crashing D-flat major chords. Anton (*) Rubinstein refused to perform that concerto by this composer, whose final symphony includes a D major "limping waltz" in 5/4 time. "La Marseillaise" clashes with "God Save the Tsar" in a piece by this composer that calls for cannonfire in its finale. For 10 points, name this Russian composer of the *Pathetique Symphony* and *1812 Overture*.
ANSWER: Pyotr Ilyich **Tchaikovsky**
<Dantzler, Classical Music> [Ed. Strombeck]

6. These statements are used to get closer to "achieving one's nature" by invoking a "great doubt" in the mind. For 10 points each:
[M] Name these statements. The *Blue Cliff Record* collects many of these statements, such as the question "What is the sound of one hand clapping?"
ANSWER: **koan**s
[H] Meditating on *koans* is emphasized in this school of Zen Buddhism popular among the samurai class. This school is contrasted with the Soto school, which focuses on achieving enlightenment solely through *zazen* meditation.
ANSWER: **Rinzai** school [or **Rinzai**-shu; accept **Linji**]
[E] The Rinzai school is associated with a ceremony involving this drink in Japan performed in namesake "houses." The ceremony usually consists of the preparation of *matcha* from specialized leaves.
ANSWER: **tea** [accept **cha**]
<Ashbrook, Religion> [Edited]

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7. This character states "Your cigarette has gone out" to a man who is too preoccupied to look up at him. When prompted, this character states that he should like to "walk towards a spring of fresh water" during his leisure time. A man described as having a "queer hat" takes it off whenever this character claps. This character refuses to sentence an old rat to death at the behest of a man who orders the (*) sun to set. This character asks the narrator of the novella he appears in to draw a sheep, but is horrified to see a picture of a boa constrictor eating an elephant. Baobab seedlings threaten the home of this character, who nurtures and falls in love with a talking rose. The asteroid B-612 is the home planet of, for 10 points, what title character of a novella by Antoine de Saint-Exupéry?
ANSWER: The **Little Prince** [or Le **Petit Prince**]
<Valan, Short Fiction/Other> [Ed. Leahy]

7. This model organism was used in an experiment that used x-rays to induce auxotrophic ("OX-oh-trophic") mutations in the model organism. For 10 points each:
[M] Name this model organism used in the experiment that postulated the one gene–one enzyme hypothesis, the Beadle–Tatum experiment. This organism is a red bread mold.
ANSWER: *N*eurospora **crassa** [prompt on *Neurospora*]
[E] *Neurospora crassa* is a member of this kingdom. Members of this kingdom include yeast and mushrooms.
ANSWER: **Fungi** [accept **fungus**]
[H] Beadle and Tatum used *N. crassa* because it reproduces using these entities that produce eight spores. *N. crassa* belongs to the largest phylum of fungi, which is partly named after these entities.
ANSWER: **asci** [accept **ascus**; prompt on ascospore, Ascomycota, or ascomycetes]
<Valan, Biology> [Ed. Lei]

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8. Alexander Ogston proposed the three-point interaction model to explain this molecule's prochirality ("PRO-kai-RAL-ity"). An enzyme that acts on this molecule moonlights as the iron regulatory protein IRP1 in low-iron conditions. In fatty acid synthesis, acetyl-CoA is transported from the mitochondria through a shuttle named for this molecule. In one process, a (*) synthase named for this molecule catalyzes a Claisen condensation between oxaloacetate and acetyl-CoA to form this molecule. That process named for this molecule yields NADH, FADH2, and ATP or GTP, and is succeeded by oxidative phosphorylation. For 10 points, identify this tricarboxylic acid which names a metabolic cycle that occurs after glycolysis, and is found in lemons and oranges.
ANSWER: **citric** acid [accept **citrate**; accept **citric** acid cycle]
<Karthik, Biology> [Ed. Lei]

8. This character describes her vision of a bloody fountain in the aria "Regnava nel silenzio." For 10 points each:
[M] Name this operatic character who interrupts her own wedding reception covered in blood before fantasizing a happy life with Edgardo in the glass harmonica-accompanied "Il dolce suono."
ANSWER: **Lucia** Ashton [accept ***Lucia*** *di Lammermoor*; prompt on Ashton]
[E] The title role of Gaetano Donizetti's opera *Lucia di Lammermoor* is sung by the *coloratura* type of this vocal range. This female vocal range is slightly higher than an alto.
ANSWER: **soprano** [accept coloratura **soprano**]
[H] In this sextet from the end of Act II of *Lucia di Lammermoor*, Edgardo confronts Lucia after she hesitantly signs a marriage contract with Arturo.
ANSWER: "**Chi mi frena** in tal momento?" [or "**Who curbs me** at such a moment?"]
<Strombeck, Opera> [Edited]

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9. This thinker distinguished between the "validity" and "regularity" of certain rituals to argue that they can be valid despite being done irregularly. Wittgenstein challenged this thinker's view that words make up "signs" from which meaning must be inferred. This thinker believed that humanity's free will only applied to the ability to freely sin. This thinker described the (*) human intellect as an image of God and mapped the Holy Trinity to different parts of human knowledge. In one book, this thinker tells a story about how he stole pears from his neighbor as a kid. In that book, this thinker describes hearing a child say "take up and read," prompting him to convert from Manichaeism. For 10 points, name this Christian theologian who wrote *City of God* and the *Confessions*.
ANSWER: Saint **Augustine** of Hippo [accept Aurelius **Augustinus** Hipponensis]
<Ashbrook, Philosophy> [Edited]

9. In response to the use of Biblical arguments to justify the oppression of women, this activist wrote The Woman's Bible. For 10 points each:
[M] Name this activist and first president of the National American Woman Suffrage Association who wrote "that all men and women are created equal" in the opening to the Declaration of Sentiments.
ANSWER: Elizabeth Cady **Stanton**
[E] The Declaration of Sentiments was signed by attendees of this 1848 convention held in New York. This first women's rights convention in the United States was co-organized by Stanton and Lucretia Mott.
ANSWER: **Seneca Falls** Convention
[H] This activist left the National American Woman Suffrage Association to create the National Woman's Party with Lucy Burns. This co-author of the Equal Rights Amendment with Crystal Eastman organized the Silent Sentinels.
ANSWER: Alice Stokes **Paul**
<Nageswaran, American History> [Edited]

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10. During a fact-finding mission to this country, Ron Dellums concluded that an airstrip being constructed north of its capital was not intended for military purposes. Paul Scoon was rescued during one event in this country. The "Mongoose Gang" was the private army of one leader of this country, whose successor was overthrown by Bernard (*) Coard. Coard and Hudson Austin helped overthrow this country's prime minister Eric Gairy as members of its New Jewel Movement. Students at St. George's University in this country were evacuated during one event. Maurice Bishop led this country, which was invaded in Operation Urgent Fury. Ronald Reagan ordered a 1983 invasion of, for 10 points, what Caribbean country?
ANSWER: **Grenada**
<Karthik, World History> [Ed. Prabhakar]

10. A narrator who is one of these things calls them "the touch of the eye, music to the deaf" after describing its presence in places like the *Book of Kings* and "Ushak carpets." For 10 points each:
[H] Name these things. A man named after one of these things uses the Jewish woman Esther as a mail carrier to try and woo his childhood love while working on a secret book with that woman's father.
ANSWER: **color**s [accept **black** or **red**]
[E] Those colors, along with a coin and Satan, narrate individual chapters of *My Name is Red*, a novel by this Turkish author of *Snow*.
ANSWER: Orhan **Pamuk**
[M] In *Snow*, the protagonist Ka investigates a suicide epidemic of girls in Kars based on a ban on these items. Kadife shoots Zaim during a performance of *The Spanish Tragedy* instead of removing this item onstage.
ANSWER: **headscarves** [or **headscarf**; accept **veil**s; accept original-language equivalents like **hijab**]
<Ashbrook, Long Fiction> [Ed. Leahy]

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11. **This physicist is alphabetically-second in the name of a pseudovector that is squared to give a Casimir invariant describing total spin. This physicist modified the Schrodinger equation to take into account the interaction of a fermion's spin with an external electromagnetic field. A concept formulated by this physicist is derived from the fact that probability amplitudes are subtracted for antisymmetric wavefunctions. The SU(2) group is spanned by this physicist's three (*)** spin matrices. A principle named for this physicist explains electron degeneracy pressure in white dwarves. This physicist theorized that two identical fermions cannot exist in the same quantum state. For 10 points, name this physicist who formulated the exclusion principle.
ANSWER: Wolfgang Ernst **Pauli** (The first line refers to the Pauli-Lubanski pseudovector.)
<Valan, Physics> [Ed. Bowman]

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11. Answer the following about the affinity between 20th century composers and whales, for 10 points each.
[E] John Tavener wrote *The Whale*, a dramatic one of these pieces for choir and orchestra. Bach's many works in this narrative genre include "Sleepers Wake" and one named for "Coffee."
ANSWER: secular **cantata**s
[H] This composer's *Vox Balaenae* requires its performers to wear black masks, and is scored for amplified flute, cello, and piano. This composer also utilized amplified instruments in his *Makrokosmos* and *Black Angels*.
ANSWER: George Henry **Crumb**
[M] Recordings of whale sounds are juxtaposed with melodies drawn from this kind of scale in Alan Hovhaness' *And God Created Great Whales*. The black keys on a piano make up one of these scales.
ANSWER: major **pentatonic** scale
<Karthik, Classical Music> [Ed. Strombeck]

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12. **A scene of this author reciting a poem at the unveiling of a Picasso statue appears in the silhouette-filled play *No Blue Memories* by Eve L. Ewing. One of the title figures of a poem by this author leaves her child her "fine-tooth comb" after passing away, while the other title figure is described as a "thin brown mouse." The line "We think of lukewarm water, hope to get in it" ends a poem by this author about a small kitchen. The poems (*)** "Gay Chaps at the Bar" and "Sadie and Maud" feature in a collection by this author about impoverished urban life, *A Street in Bronzeville*. In a poem by this author, "Seven at the Golden Shovel" do things like "Jazz June" and "Die soon." For 10 points, name this African-American poet who described life in Chicago in poems like "We Real Cool."
ANSWER: Gwendolyn **Brooks**
<Ashbrook, Poetry> [Ed. Leahy]

12. Answer the following about animals from African mythologies, for 10 points each.

[E] This West African trickster god successfully captures a nest of hornets, a python, and a leopard as part of his quest to gain possession of the world's stories from Nyame. This god often takes the form of a spider.

ANSWER: **Anansi**

[M] In his namesake epic, Mwindo earned the wrath of the lightning god Nkuba after he killed one of these animals named Kirimu. In Egyptian mythology, the ouroboros is one of these animals that symbolizes rebirth.

ANSWER: **dragon** [accept **serpent**s or **snake**s]

[H] In Yoruba myth, the *orisha* Orunmila was advised by one of these animals named Agemo. Many Bantu myths have this slow animal being sent to tell humanity it would never die, only for another animal to beat it and tell humanity it would die.

ANSWER: **chameleon**

<Prabhakar, Myth> [Edited]

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13. The 2010 documentary *Waste Land* centers on Vik Muniz's re-creation of a depiction of this scene using items in a Rio de Janeiro landfill. That painting of this scene originally formed a series with others depicting Young Bara and Lepeletier ("leh-peh-LET-ee-ay"). A red-haired nude stands in a green-walled room in front of the title figure on a bed in two versions of this scene created by (*) Edvard Munch ("moonk"). The most famous version of this scene includes the artist's name on a wooden block beside the main figure, who wears a head cloth while slumped over in an object covered by a green rug. For 10 points, name this scene of a French Revolutionary assassinated by Charlotte Corday in his bathtub, originally depicted by Jacques-Louis David.

ANSWER: The **Death of Marat** [accept The **Last Breath of Marat** or The **Assassination of Marat** or La **Mort de Marat** or **Marat Assassiné**]

<Dantzler, Painting & Sculpture> [Ed. Strombeck]

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13. Guanajuato surpassed one city in the production of this good in the 18th century. For 10 points each:

[M] Name this good whose discovery in Cerro Rico started a massive global trade. The patio process was employed to extract this good in one city where control over this good was contested between the Vicuñas ("vi-KOON-yas") and the Basques.

ANSWER: **silver**

[E] The global silver trade was part of this transfer of goods, people, and ideas between the Old and New Worlds. Alfred Crosby named this phenomenon after the first European explorer to discover the Americas since the Vikings.

ANSWER: **Columbian Exchange** [accept **Columbian Interchange**]

[H] Much of the silver mined in Spanish America ended up in Ming China, even though this first Ming emperor had earlier eliminated silver as part of reintroducing paper currency. This emperor led the Red Turban Rebellion.

ANSWER: **Hongwu** Emperor [accept **Zhu Yuanzhang**]

<Sareddy, Other History> [Edited]

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14. The general Li Guangli secured 3,000 of these things in a military campaign initiated after a diplomatic expedition by Zhang Qian ("chee-AHN"). These things were the subject of a Hittite-language text by Kikkuli of Mittani. Reports of blood-sweating examples of these animals led to a war against the Dayuan ("DAH-yuen") state named for their (*) "heavenly" variety. Roman dictators would appoint a lieutenant whose title was "Master of [this animal.]" The *biga* and *quadriga* were vehicles that used these animals in events that took places in locations like the Circus Maximus. One of these animals used by Alexander the Great was named Bucephalus. For 10 points, name these four-legged animals that were used to pull chariots.

ANSWER: **horse**s

<Prabhakar, Other History> [Edited]

14. This author described herself as being "the total black / being spoken / from the Earth's insides" in her poem "Coal." For 10 points each:
[H] Name this author of *The Cancer Journals*. This author wrote about "the role of difference in the lives of American women" in "The Master's Tools Will Never Dismantle The Master's House," part of her collection *Sister Outsider*.
ANSWER: Audre **Lorde**
[M] "The Master's Tools" ends with a quote from this character addressed to a "master of illusion." In that Aimé Césaire ("em-AY say-ZAIR") adaptation, this son of the witch Sycorax demands to be called X rather than use colonizing language.
ANSWER: **Caliban**
[E] Lorde considered herself part of a "womanist" movement founded by this author, who described the "contrary instincts" of Blackness in "In Search of Our Mothers' Gardens." This author also wrote *The Color Purple*.
ANSWER: Alice **Walker** [or Alice Malsenior Tallulah-Kate **Walker**]
<Leahy, Short Fiction/Other> [Edited]

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15. This actor narrated Kurt Vonnegut's "The Foster Portfolio" in the first episode of his podcast, which is titled [this actor] *Reads*. In a cameo on the Eric Andre Show, this actor dresses up as a police officer and screams "I wish I was Lance Reddick!" This actor tweeted that he felt like he'd been "preparing his whole life to occupy the (*) *Jeopardy!* podium," leading fans to start a petition for him to act as guest host after Alex Trebek's death. A character played by this actor is whipped until he acknowledges his new name "Toby" in a 1977 television miniseries based on an Alex Haley novel about African-American lineage. For 10 points, name this actor who played Kunta Kinte in *Roots* and hosted *Reading Rainbow*.
ANSWER: LeVar **Burton**
<Bowman, Other> [Edited]

15. The Swing and FX libraries provide graphics for desktop applications in this language. For 10 points each:
[E] Name this object-oriented language developed by Oracle, whose logo is a cup of coffee.
ANSWER: **Java** [do NOT accept or prompt on "JavaScript"]
[M] IntelliJ ("in-TEL-ih-jay") IDEA, Eclipse, and NetBeans are examples of this sort of program for Java which provides a suite of facilities such as a text editor through which programmers can develop software.
ANSWER: **IDE** [or **integrated development environment**]
[H] IntelliJ IDEA provides support for this pragmatic alternative to Java developed by JetBrains. This language, which interoperates fully with Java, is the preferred language for developing Android apps.
ANSWER: **Kotlin**
<Bowman, Computer Science> [Edited]

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16. In this novel, one woman exclaims "To hell with the Archbishop!" after arguing with her husband about how long they've gone without soap. A teenage boy in this novel is arrested for spying after he plays a violin waltz called "The Crowned Goddess" for his lover. In this novel, a woman forced to eat eggplant discovers her husband's affair with Barbara Lynch. The skilled (*) chess player Jeremiah Saint-Amour is revealed to have committed suicide at the start of this novel, and is followed soon after by a doctor who falls off a ladder trying to retrieve his parrot. A yellow flag in this novel allows the two central characters to quarantine on a riverboat. For 10 points, name this novel detailing the relationship of Fermina Daza and Florentino Ariza amidst the title disease, by Gabriel Garcia Marquez.
ANSWER: *Love in the Time of Cholera* [accept *El amor en los tiempos del cólera*]
<Kala, Long Fiction> [Ed. Leahy]

16. The painter of this object changed its descriptor from its colloquial nickname of "Saucy," and altered details of its appearance despite witnessing the scene it is portrayed taking part in. For 10 points each:
[M] Name this object that an artist painted being pulled by a tugboat against the background of a hazy sunset. That painting of this object was displayed with two lines from the Thomas Campbell poem "Ye Mariners of England."
ANSWER: HMS **Temeraire** [accept *The **Fighting Temeraire**, tugged to her last berth to be broken up, 1838*]
[E] *The Fighting Temeraire* is by this British painter who showed a rabbit in the path of a train crossing a bridge in *Rain, Steam, and Speed - The Great Western Railway*.
ANSWER: J.M.W. **Turner** [or Joseph Mallord William **Turner**; or William **Turner**]
[H] Turner created depictions of some of these locations at Raby and a blurry blue one at Norham. John Constable showed the ruins of one of these locations named Hadleigh under stormy skies.
ANSWER: **castle**s [or **castle** ruins; accept *Norham **Castle**, Sunrise*; accept *Hadleigh **Castle***]
<Strombeck, Painting & Sculpture> [Edited]

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17. Robert Bultmann argued that the *semeia* source was an incomplete version of this book that was authored by a person in it who is told, "Here is your mother." Some scholars believe that the week of creation is mirrored in this book in its section the "Book of Signs." Christ is referred to as "the bread of life," "the light of the world," and "the true vine" as part of seven "I am" statements in this book. The statement that one man (*) "wept" in this book makes up the shortest verse in the Bible. In this book's second chapter, Jesus turns water into wine at a wedding in Cana. This book's equating of Jesus with God is illustrated by its opening sentence, "In the beginning was the Word." For 10 points, name this non-synoptic gospel, the final of the four gospels in the New Testament.
ANSWER: Gospel according to **John** [or the Gospel of **John** or the Book of **John**; do NOT accept or prompt on "First John," "Second John," or "Third John"]
<Lau, Religion> [Ed. Ashbrook]

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17. This city abolished slavery and emancipated serfs with the Liber Paradisus. For 10 points each:
[H] Name this northern Italian city that later lost the Battle of Zappolino to Modena during the War of the Bucket. This city's namesake university, the oldest continuously operating university in the world, was established in 1088.
ANSWER: **Bologna**
[E] The War of the Bucket was part of the conflict between the Guelphs and Ghibellines, during which Bologna supported the Papacy, and Modena supported this confederation of mostly German states. This empire's first ruler was Charlemagne.
ANSWER: **Holy Roman** Empire [accept **Sacrum Imperium Romanum** or **Heiliges Römisches Reich**; prompt on HRE; do NOT accept or prompt on "Roman Empire"]
[M] Bologna sided with the Pope, even though this Holy Roman Emperor granted a charter for the University of Bologna. This Holy Roman Emperor later drowned in the Saleph River during the Third Crusade.
ANSWER: **Frederick Barbarossa** [accept **Frederick I** or **Friedrich I** or **Frederick III of Swabia** or **Friedrich III of Swabia**; prompt on Frederick or Friedrich or Barbarossa]
<Sareddy/Prabhakar, British/European History> [Ed. Prabhakar]

18. Paul Klemperer formulated a type of this event named for "product mixing" in which multiple assets are dealt with at once. Riley and Samuelson showed that two of these events will have equal expected returns if the reservation prices are equal, proving the revenue equivalence principle. William Vickrey pioneered the use of game theory to study these events, and he names a type of these events based on "second price." The (*) "Dutch" type of these events proceed in the opposite direction as their "English" variety. Robert Wilson and Paul Milgrom won the 2020 Nobel Prize in Economics for their work studying these events. The tendency to overpay in these events is known as the "winner's curse." For 10 points, name these events in which goods are sold to the highest bidder.
ANSWER: **auction**s [accept product mix **auction**s; accept English **auction**s; accept Dutch **auction**s]
<Ashbrook, Economics> [Edited]

18. One poet with this last name and the first name Frederic wrote of Mireio, the daughter of a rich farmer who desires to marry the basket-weaver Vincent. For 10 points each:
[H] Give this last name. A poem by a different author with this last name commands the listener to "create beauty not to excite the senses but to give sustenance to the soul."
ANSWER: **Mistral** [accept Frederic **Mistral** or Gabriela **Mistral**, prompt on Alcayaga with "By what last name is she better known?"]
[M] Frederic Mistral helped found the *Félibrige* [fell-ee-breezh], a literary society which promoted poets who wrote in this language. The light, rich, and closed styles were used in the poetry of troubadours, who traditionally performed in this vernacular language.
ANSWER: **Provençal** [accept **Occitan**]
[E] Much of Frederic Mistral's poetry is collected in a volume titled for islands of this color. A Robert Frost poem notes that "nothing" of this color "can stay."
ANSWER: **gold** [accept *Islands of **Gold***, accept *Lis Isclo d'**or***; accept "Nothing **Gold** Can Stay"]
<Karthik, Poetry> [Ed. Leahy]

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19. A two-sided Laplace transform produces one of these expressions that computes moments for a discrete probability distribution. One of these expressions is constructed around an ordinary point to solve a differential equation in the method of Frobenius. When terms of sequences are encoded into these expressions, they are called generating functions. These expressions evaluate as infinite outside of their (*) radius of convergence. One type of these expressions are given as *[read slowly]* "the infinite sum of a function's nth derivative over n factorial times x to the n." For 10 points, name these expressions which are polynomials of infinite degree, some of which approximate functions and are named for an Englishman.
ANSWER: **power series** [accept **Taylor series** or **Taylor sum**; accept **Maclaurin series** or **Maclaurin sum**; accept **generating function**s or **moment generating function**s; prompt on series or infinite series; prompt on polynomial or infinite polynomial before mentioned; prompt on sum or infinite sum]
<Karthik, Math> [Ed. Bowman]

19. Coleman Hughes spoke out against a bill investigating this proposed policy in a 2019 House hearing. For 10 points each:
[M] Name this policy that would be investigated as part of bill H.R. 40. Kevin Williamson published an article against this policy in response to a "case for" it by Ta-Nehisi Coates.
ANSWER: **reparations** for slavery [accept equivalents suggesting **reparations** for African-Americans]
[H] Coates's "The Case for Reparations" was originally published in this magazine. Kevin Williamson was fired from this magazine due to tweeting that women should be hanged for having abortions.
ANSWER: The _**Atlantic**_ [accept The _**Atlantic**_ Monthly]
[E] Another critic of reparations who testified was Burgess Owens, who won the 2020 election for this state's 4th congressional district. Owens defeated Ben McAdams, a former mayor of this state's capital, Salt Lake City.
ANSWER: **Utah**
<Prabhakar, Current Events> [Ed. Nageswaran]

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20. A king of this country was defeated in one battle by Wulf Isebrand during a failed attempt to subdue a peasant republic at Dithmarschen. During one crusade, this country's king established a duchy after winning the Battle of Lyndanisse. This country was forced to grant unrestricted trade in one body of water to a rival power as one of the conditions of the Treaty of (*) Stralsund. During the 16th and 17th centuries, this country derived two-thirds of its income from the Sound Dues. In 1397, this country's queen Margaret I established the Kalmar Union with this country's northern neighbors. Norway and Sweden were formerly united with, for 10 points, what country governed from Copenhagen?
ANSWER: **Denmark** [accept **Denmark**-Norway; prompt on the **Kalmar** Union before mention]
<Karthik, British/European History> [Ed. Prabhakar]

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20. These equations have different forms for s-polarized and p-polarized light, but both reduce to the same equation at normal incidence. For 10 points each:
[H] Name these equations that describe the behavior of light at an interface between two transparent mediums. These equations are able to calculate the amplitude coefficients for reflection and transmission.
ANSWER: **Fresnel** ("fray-NELL") equations
[M] When the transmission coefficient in the Fresnel equations is equal to zero, this phenomenon occurs. Fiber optic cables use this phenomenon to contain light.
ANSWER: **total internal reflection** [prompt on TIR; prompt on reflection]
[E] Fresnel's equations can be derived from this law. This law states that the ratio between the sines of the angles of incidence and refraction is equal to the ratio of the indices of refraction between two mediums.
ANSWER: **Snell**'s law [or **Snell**ius' law]
<Karthik, Physics> [Ed. Bowman]