

**Penn Bowl 2021: Flenn Bowl**

**Packet 10**

**Editors: Sam Botterbusch, Jordan Brownstein, Harris Bunker, Taylor Harvey, NourEddine Hijazi, Aseem Keyal, Shan Kothari, Emmett Laurie, Paul Lee, Tracy Mirkin, Nitin Rao, Jonathen Settle, Margaret Tebbe, Michael Yue**

**Writers: Gabe Ajzenman, Sam Charney, Talia Coopersmith, Jacob Dubner, Deniz Gedik, Antonio Jimenez, JinAh Kim, Kevin Liang, Alex Moon, Ayush Parikh, Sarah Potts, Adam Robbins, Daniel Shin, and Jack Sugrue**

Tossups

1. **A character played by Andrew Garfield meets the Hobo King under a statue of a character from this film in David Robert Mitchell's *Under the Silver Lake*. The opening scene of this film shows its star actor falling down and starting to play with a toy monkey just as his actor credit appears on screen. In a 2016 film, a panning shot of a car moving from screen right to screen left from this film is recreated after (\*) Mia and Sebastian see it on a date. A character in this film comes home to find his emasculated father cleaning up a spilled tray of food while wearing a frilly apron. In this film, Buzz dies when his car plunges over a cliff during a game of "chickie run." In a police station, a character in this film screams "you're tearing me apart." For 10 points, the Griffith Observatory appears in what 1955 Nicholas Ray film starring James Dean as a troubled teenager?**

ANSWER: **Rebel Without a Cause** (The 2016 film is *La La Land*.)

<Taylor Harvey, Other Arts>

2. **Jupiter watches plays in an amphitheater in a fable about this figure by Juan Luis Vives, which is collected in Paul Kristeller and Ernst Cassirer's ("ka-SEER-ur's") anthology of philosophy on this figure. This figure may soon be erased "like a face drawn in sand at the edge of the sea" according to the final sentence of Foucault's *The Order of Things*, which calls this figure "an invention of recent date." The angelic hierarchy of Seraphim, Cherubim, and Thrones, which this figure's freedom allows them to (\*) emulate, is described in a work titled for this figure that was intended as an introduction to the *900 Theses*. This figure is called the most wondrous of God's creations in a Kabbalah-infused "Oration on the Dignity of" this figure by Pico della Mirandola. For 10 points, Lorenzo Valla and Petrarch exemplify a Renaissance ideology named for what species?**

ANSWER: **man** [or **humanity**; or **humans**; or **homo** sapiens; accept plurals or word forms like **men** or **humanism**; accept *The Renaissance Philosophy on Man*; accept *Oration on the Dignity of Man*; accept *De hominis dignitate*]

<Jordan Brownstein, Philosophy>

3. **In the class Malacostraca, the polypeptide MIH ("M-I-H") inhibits this process by keeping the Y-organs from taking up cholesterol. In another class, this process is stimulated by the prothoracic ("pro-thuh-RASS-ic") glands. The superphylum that includes penis worms and nematodes is named for the fact that all of its members undergo this process. The Halloween genes allow insects to make (\*) ecdysone, a steroidal prohormone that promotes this process. Among arthropods, instars are the periods between successive events of this type. In insects, metamorphosis can occur when the concentration of juvenile hormone during this process declines. For 10 points, name this process that, in many invertebrates, involves shedding the rigid exoskeleton to allow growth.**

ANSWER: **molt**ing [or **ecdysis** until "ecdysone" is read; accept **apolysis**; anti-prompt on **metamorphosis** until read by asking "during what more general process does metamorphosis occur?"]

<Shan Kothari, Biology>

4. **This author wrote about a jealous lord who has a sculpture of his wife's first husband disfigured to bear the latter's horrific burns in a story that is collected with other tales about "noble dames." In another story by this author, Baptista elopes with a former lover who dies an hour after their wedding. This author of "A Mere Interlude" included the story "The Three (\*) Strangers" among his "novels of character and environment," which include a novel that ends with the protagonist's wife leaving his fresh corpse to join a Remembrance Week party. In that novel by this author, Arabella returns from Australia with a somber child nicknamed "Little Father Time." The fictional county of Wessex provides the setting of many works by, for 10 points, what author of *Jude the Obscure*?**

ANSWER: Thomas **Hardy**  
<Margaret Tebbe, British Literature>

5. **A child of this name enjoyed beating geese to death according to English ambassador Giles Fletcher the Elder; for instigating the riot that followed that child's death, a town bell was flogged and had its clapper, or "tongue," torn out. After falling from a window, a man with this name was dragged from a bathhouse and murdered before his remains were shot from a cannon towards the home country of his ten-day wife, Marinka the Witch. The Treaty of (\*) Deulino ended a war where the Polish-Lithuanian Commonwealth supported some men with this name against nobles like Vasily Shuisky. Boris Godunov claimed a self-inflicted throat stabbing via an epileptic seizure as the cause of death of a boy with this name, the youngest son of Ivan IV. For 10 points, the Time of Troubles saw multiple "False" pretenders of what name attempt to become tsar?**

ANSWER: **Dmitry** [accept **Dmitry** Ivanovich, **Dmitry** of Uglich, **Dmitry** of Moscow, False **Dmitry** I/II, or Pseudo-**Demetrius** I/II]  
<Tracy Mirkin, European History>

6. **In a play set in one of these places, Jamie and Morse get into a fight over a game of checkers and the prostitute Suzy appears onstage naked after being beaten by a customer. The "e" is burned out of a neon sign of one of these places in Baltimore in that play by Lanford Wilson. It's not a bar, but the flirty Miriam tries to seduce a bartender while her painter husband Mark convinces himself he has discovered the concept of color in a play set in one of these places in Tokyo. A character in one of these places resolves to commit suicide by taking the "long swim to (\*) China." At the beginning of that play, a group led by the disgraced Reverend Lawrence Shannon arrives at one of these places run by Maxine Falk, where Hannah Jelks cares for her dying grandfather, the poet Nonno. For 10 points, a tour group stays at what sort of place in Tennessee Williams's *The Night of the Iguana*?**

ANSWER: **hotel** [accept **motel** accept **hotel lobby**; accept **resort**; prompt on **lobby**; prompt on **apartment building**]  
(The unnamed plays are *The Hot l Baltimore* and *In the Bar of a Tokyo Hotel*.)  
<Taylor Harvey, American Literature>

7. **This word and "so" are used in a constituency test for non-stative VPs, since it is the most general pro-verb in Standard English. Alvar Ellegård's causative theory and the Celtic hypothesis attempt to explain the origin of the meaningless "periphrastic" use of this word in English, a typologically unusual syntactic phenomenon named for this word and "support." This English verb, which is cognate to the Greek reduplicative "tithemi" ("TEETH-eh-mee") and Latin (\*) "facere" ("FAH-keh-reh"), is a common light verb often colligated with "work." In a simple sentence with no auxiliary or copular verb, adding a stressed form of this verb gives the emphatic mood, while adding a form of this "dummy" verb is required to form negations and questions via subject inversion. For 10 points, identify this versatile English auxiliary verb that is synonymous with "perform."**

ANSWER: **do** [accept **does**, **did**, **doing**, **don't**, or word forms of "to **do**"; accept "**do** so" or **do**-support] (The Old English etymon *don* also served as a general causative marker, from which do-support may have developed.)  
<Ophir Lifshitz, Social Science>

8. This leader's claims that his nation would be "forged in the white heat of technology" were discredited by his hesitancy to devalue his currency. This politician's futile oil blockade on the port of Beira followed the issuing of the Unilateral Declaration of Independence by Ian Smith. This man delegated the creation of the Open University to Jennie Lee, widow of his former party colleague Aneurin Bevan. A line from the *Aeneid* describing "the River Tiber foaming with much (\*) blood" was quoted as part of a critical Enoch Powell speech on this man's immigration policies. The "Thirteen Wasted Years" ended following the defeat of incumbent Alec Douglas-Home by this man, whose sudden 1976 resignation pushed James Callaghan into the ministership. Edward Heath's Conservative cabinet separated the two terms of, for 10 points, which Labour Prime Minister of Britain?

ANSWER: Harold Wilson

<Tracy Mirkin, Other History>

9. Anna-Britt Agnsäter created the first of these representations for the Swedish retailer Kooperativa Förbundet. The withdrawal of one of these constructs in 1991 was attributed to industry lobbying by Marion Nestle ("NESS-ull"). The most famous of these diagrams was opposed by Walter Willett, who with other Harvard researchers released an alternative version of it. A 2005 variant shows a person (\*) walking up a flight of stairs on the side of this diagram, which was replaced in 2011 with MyPlate. The U.S. Department of Agriculture's original version of this diagram instructed "Use sparingly" for "Fats, oils, and sweets." For 10 points, name this triangular diagram that specifies how many servings of meat, grain, and vegetables a person should eat.

ANSWER: food pyramid [or food guide pyramid; or nutritional food pyramid; prompt on food guide or equivalents by asking "in what shape?"]

<Shan Kothari, Other Science>

10. Unusually, the entries of this series were flipped when painted so the commissioned engraver Gerard Scotin ("jay-RAHR sco-TAWN") didn't have to use a mirror for copper reproductions. In an entry in this series, a green curtain obscures most of a painting in the background so only an ankle is visible; that entry in this series includes a broken-nosed bust on a mantle. Correggio's *Jupiter and Io* appears in an entry in this series in which a black child plays with an Actaeon figurine. In its first entry, a man rests his gout-ridden foot on a stool and points at a (\*) family tree while a pair of dogs are chained together in the left corner. A child with a syphilitic spot kisses her dead mother in its final entry, which follows an entry where Silvertongue flees through a window after a stabbing. For 10 points, Squanderfield's son dies in what William Hogarth series satirizing the nuptials of British aristocracy?

ANSWER: Marriage A-la-Mode

<Aseem Keyal, Painting>

11. In a passage titled for these locations, a prophet destroys a boat and kills a child while reminding Moses to have patience. That passage named for these locations relates a parable about God destroying a rich man after he denies the existence of Judgment Day. While in Jerusalem, Muhammad visited Abraham at one of these locations in Hebron; that location of this type is supposedly where Abraham, Isaac, Jacob, and their wives (\*) were buried. Dhul al-Qarnayn, or "He of two horns," is referenced in a surah named for these locations where a group of people sought refuge and awoke hundreds of years later to find that people in their city had converted. Gabriel appeared in one of these locations named Hira and instructed Muhammad to read before revealing the Quran to him. For 10 points, the Seven Sleepers resided in what holes in mountains where people pray?

ANSWER: cave [accept Surah Al-Kahf]

<NourEddine Hijazi, Belief>

12. Harry Gray received the Wolf Prize in Chemistry for examining this process on the surface of ruthenium-modified azurin protein. Miller and Closs's observation of these processes in the "inverted region" was the first experimental proof of this process following a non-Rehm–Weller behavior. A formula describing this reaction builds on the Arrhenius equation by introducing a reorganization energy term symbolized lambda. A type of this reaction that proceeds through covalent linkage was heavily studied using the (\*) Creutz–Taube complex. A diagram depicting this reaction typically plots Gibbs free energy divided by the Faraday constant on the y-axis and is named for Frost. This type of reaction described by Marcus theory can be represented as a sum of two half-reactions. For 10 points, name these reactions that involve transfer of electrons.

ANSWER: redox reactions [or reduction-oxidation reaction; or oxidation-reduction reaction; or photoinduced electron transfer or charge transfer until "transfer of electrons" is read, but prompt after; prompt on reduction reaction; prompt on oxidation reaction; prompt on disproportionation]

<Paul Lee, Chemistry>

13. In the opening of one play about this woman, she "thinks that she's going to die, that she's young, and that she too would've wanted very much to live." In another play, her first words are "we begin in the dark / and birth is the death of us." In her notes on her job as this woman's translator, Anne Carson writes that her name "means something like "against birth" or "instead of being born"" and that she "keeps returning to Brecht / who made [her] do the whole play with a door strapped to your back." This woman is spotted in a (\*) dust storm and her death causes Haemon, her lover, to kill himself. For 10 points, name this daughter of Oedipus who kills herself after being forbidden to bury her brother, the subject of plays by Jean Anouilh ("ah-NOO-ee") and Sophocles.

ANSWER: Antigone

<Margaret Tebbe, European Literature>

14. A Union Pacific Depot in this city is a concert venue that also marks the entrance to The Gateway, a downtown shopping center. Mahonri Young designed an obelisk that marks the spot where this city was founded at This is the Place Heritage Park. This city lies northeast of the deepest man-made hole in the world, the Bingham Canyon Mine. This city is the home of the (\*) Family History Library, the world's largest genealogical library. Along with Park City and its namesake ski resort, this city hosts the Sundance Film Festival. Rice-Eccles Stadium hosted the ceremonies for the 2002 Winter Olympics in this city. Temple Square is the home of this city's Tabernacle Choir, as well as the headquarters of the Mormon Church. For 10 points, name this capital of Utah.

ANSWER: Salt Lake City

<Nitin Rao, Miscellaneous>

15. Lambert's theorem is used when carrying out calculations in this model system. This system is solved within each sphere of influence in the patched conic approximation. Part of the rotational energy in this system equal to the quantity " $L$ -squared over two mu  $r$ -squared," is conveniently incorporated as a centrifugal term in its potential energy. Although useful for all inverse-square central forces, the (\*) LRL vector was originally recognized as a conserved quantity of this system. The reduced mass simplifies analysis of this system. This system is equivalent to restricting another system in celestial mechanics, which, unlike this one, has no closed form solution. For 10 points, a German astronomer sometimes lends his name to what system in which a pair of objects orbit each other?

ANSWER: **two-body** problem [or **Kepler** problem; prompt on central force or central potential before "central" is read]

<Jonathen Settle, Physics>

16. Keith Wailoo examined this city's African-American community as it experienced the increased visibility of sickle cell anemia, which was the specialty of its doctor Lemuel Diggs. Diggs helped found St. Jude's Children's Research Hospital in this city. Poll taxes from Black voters supported this city's longtime political boss, E. H. Crump. The deaths of (\*) Echol Cole and Robert Walker triggered a strike in this city in which Mayor Henry Loeb suppressed the AFSCME. An activist was assassinated in this city after going there to lead the Poor People's Campaign. A strike in this city was the subject of the "I've Been to the Mountaintop" speech. For 10 points, name this city where James Earl Ray assassinated Martin Luther King.

ANSWER: **Memphis**

<Emmett Laurie, American History>

17. Rebels of this ethnicity crucify a child and drink his blood in an effort to become invulnerable to bullets in the novel *The Book of Lamentations*. An epic from this ethnic group opens by describing a primordial world that "ripples," "murmurs," "sighs," and "hums" in the standard translation by Dennis Tedlock. In a novel based on this ethnic group's mythology, a "firefly wizard" guides a postman searching for his missing wife into a cave where he has a vision of the guerilla leader Gaspar Ilom. That novel is titled for a (\*) nickname for this ethnic group taken from an epic in which a skull in a fruit tree impregnates a woman by spitting on her hand. The protagonists of that epic of this ethnicity win a ballgame against the lords of the underworld. For 10 points, Miguel Asturias's *Men of Maize* depicts what ethnic group whose epic is the *Popol Vuh*?

ANSWER: **Mayan** [or **Tzotzil**; or **K'iche'**; prompt on indigenous Mexican or Guatemalans; prompt on Indians] (*The Book of Lamentations* is by Rosario Castellanos.)

<Jordan Brownstein, World Literature>

18. This substance is mentioned in the description of Heimdall's residence of Himinbjörg in the *Grímnismál*. Bolverk agrees to do the work of nine men who recently killed each other with sharpened scythes in exchange for some of this substance. Freyr's son Fjolnir is killed by some of this substance in the *Ynglinga saga*. The goat Heiðrún ("HEY-throon") produces this substance in Valhalla while feeding from Læraðr ("LAY-radur"). This substance was created by mixing (\*) honey with the remains of a man who was created at the end of the Aesir–Vanir war; that wise man killed by Fjalar and Galar who was used to make this substance was named Kvasir. Hnitbjörg is used to store some of this substance belonging to Suttungr, which Gunnlod guards until a deity seduces her and flies away with it in the form of an eagle. Bad poets are said to be inspired by, for 10 points, what substance "of poetry" desired by Odin?

ANSWER: mead [accept mead of poetry]

<NourEddine Hijazi, Belief>

19. 16 of this leader's supporters were killed at Rawson Prison during a crackdown on a group that had killed Pedro Aramburu. That group who supported this man murdered Jose Rucci, who had overseen the splitting of the CGT in this leader's absence. This leader retook power after Hector Campora's election. The corpse of this leader's first wife was stolen and buried anonymously in Milan. Right-wing supporters of this man opened (\*) sniper fire on his left-wing supporters at an airport in a massacre ordered by his advisor Jose Lopez Rega. The Montoneros fought to end this man's exile, which was triggered by the *Revolucion Libertadora*. For 10 points, name this populist Argentinian leader.

ANSWER: Juan Peron

<Emmett Laurie, World History>

20. The concluding cadenza of the finale of one of these works ends by rapidly jumping between octave G's in three different registers. One of these works by Bach ends with a G-minor *Presto* in 3/8-time that is mostly a long 16th-note run. A set of 15 programmatic works of this type divided into "Joyful," "Sorrowful," and "Glorious" sections concludes with a G-minor passacaglia. That set of these works featuring heavy *scordatura* is by Heinrich (\*) Biber. As part of his Opus 5, Corelli's variations on *La Folia* is one of these works. One of these works is paired with a work containing a D-minor chaconne. A dream in which the title figure performed at the composer's bedside inspired one of these works by Tartini, the "Devil's Trill." For 10 points, Bach paired three partitas with three of what chamber works featuring the highest string instrument?

ANSWER: violin sonata [prompt on sonata; accept specific varieties like unaccompanied violin sonatas or sonatas for violin and continuo; do not accept or prompt on "trio sonata"]

<Michael Yue, Music>

## Bonuses

1. This country was the site of a culture that produced abstract, rigidly upright sculptures of elongated figures linked together while seated or raising their arms upwards. For 10 points each:

[10h] Name this country, the site of agonized figurines of tubular men and women in contorted positions with patterns of bumps or grooves. A mosque in this country has a façade punctuated by palm frond bundles called *toron*.

ANSWER: **Mali** (The clues refer to Dogon sculpture, the sculpture of Djenné-Djeno, and the Great Mosque of Djenné.)

[10e] Those Malian figurines from Djenné-Djeno are made of this material, also used for Nigerian Nok heads. This reddish-brown unglazed earthenware was used to sculpt the army of Qin Shi Huang.

ANSWER: **terracotta** [prompt on ceramics or clay]

[10m] The British Museum is the site of a looted head from the Nigerian city of Ife (“ee-fay”) that is [emphasize] *named* for this material. Stolen plaques from Benin *named* for this material are also located at the British Museum.

ANSWER: **bronze** [do not accept or prompt on “brass”]

<Aseem Keyal, Other Arts>

2. Cleisthenes was a loser. Answer the following about Solon, the real OG, and his contributions to Athenian democracy, for 10 points each.

[10e] Solon was sick. So sick in fact, that after implementing his reforms, he exiled himself for 10 years to avoid becoming one of these people, leaders who ruled alone without constitutional authority. Thirty of them ruled Athens after the Peloponnesian War.

ANSWER: **tyrants** [or *týrannoi*; or *tyrannos*; accept the Thirty **Tyrants**, or the *hoi triákonta týrannoi*]

[10m] Solon was such a great guy that he implemented the *seisachtheia*, a “shaking off of burdens” that aimed to eliminate this prevalent situation in ancient Athens which characterized the *hektemoroi*, or “one-sixth men.”

ANSWER: **debt slavery** [or **debt bondage**; accept **indentured servitude**; accept descriptions of a **person** themselves being used as security for a loan; prompt on slavery or being enslaved; prompt on serfdom]

[10h] Within Solon’s timocratic class system, these individuals were the lowest, producing less than 200 medimnoi of goods per year. They may have been below the *pentakosiomedimnoi*, the *hippeis*, and the *zeugitai*, but at least they weren’t slaves! Original language term required.

ANSWER: **thêtes**

<Tracy Mirkin, Other History>

3. An Erdős–Rényi random graph has a binomial degree distribution because one of these things may exist between any two vertices with a fixed probability. For 10 points each:

[10e] Name these entities that connect vertices in a graph. The degrees of every vertex in an undirected graph sum to twice the number of these things.

ANSWER: **edges**

[10m] Many graph properties are inferred from eigenvalues of the Laplacian matrix, which is calculated by subtracting this matrix from the degree matrix. For a simple graph, this matrix contains 1 for two connected vertices and 0 otherwise.

ANSWER: **adjacency** matrix

[10h] The degree distribution of vertices follows a power law in this kind of network. The Barabási–Albert model uses preferential attachment to generate random networks with this property.

ANSWER: **scale-free** network [or **scale-free** graphs]

<Shan Kothari, Other Science>

4. The title character immigrates to Boyce Heights in Luis Alfaro's adaptation of this play, which another author used as the basis for a play that features post-apocalyptic countries like Gringolandia. For 10 points each:

[10m] Name this play adapted into Cherrie Moraga's *The Hungry Woman*. A chorus of Corinthian women features in this play, in which a messenger recounts Glauce's death via a poisoned robe.

ANSWER: Medea (by Euripides)

[10h] The child that Medea kills in Moraga's play has this name. In a Carlos Fuentes story named for a type of sculpture with this name, one of those sculptures comes to life after Filibert buys it.

ANSWER: Chacmool

[10e] Another Latin American adaptation of a Greek tragedy, Griselda Gambaro's *Antigona Furiosa*, depicts Antigone imitating the mannerisms of this character from her "mad scene" in Shakespeare's *Hamlet*.

ANSWER: Ophelia

<Jordan Brownstein, World Literature>

5. This firm's "future accounts receivables program" loaned millions of dollars to Jim Justice's Bluestone Resources for coal deliveries to non-existent customers. For 10 points each:

[10h] Name this supply chain financing company that filed for insolvency in March 2021. This company's other clients included Sanjeev Gupta's steel conglomerate and his SNP-linked mills.

ANSWER: Greensill Capital

[10e] A parliamentary inquiry investigated this man's lobbying activities for Greensill, including texts to Chancellor of the Exchequer Rishi Sunak. This prime minister who preceded Theresa May called the Brexit referendum.

ANSWER: David Cameron

[10m] This company's Vision Fund invested 1.5 billion dollars in Greensill Capital. This company's founder Masayoshi Son attempted to arrange a 3-billion-dollar loan from Greensill to WeWork after the latter's failed IPO.

ANSWER: SoftBank

<Nitin Rao, Miscellaneous>

6. Answer the following about discussions of baseball in the philosophy of mind, for 10 points each.

[10m] A John Haugeland paper titled for this concept's "All-Stars" places philosophers on a baseball infield based on their views on it. Franz Brentano coined this term for the quality of mental states being directed towards things.

ANSWER: intentionality [or intentional mental states; accept aboutness; do not accept or prompt on "intention"]

[10e] The example of the baseball player Chuck Knoblauch repeatedly appeared in the debate over conceptual rationality between John McDowell and Hubert Dreyfus, a leading scholar of this German author of *Being and Time*.

ANSWER: Martin Heidegger

[10h] The major book by the author of *Infinite Baseball*, Alva Noë, considers perception as a "skillful" phenomenon of this sort. Key works in the theory of these things include Jennifer Hornsby's book titled for them and Donald Davidson's paper on these things, "Reasons," and "Causes."

ANSWER: actions [or bodily activities; accept Action in *Perception*, Actions, or "Actions, Reasons, Causes"]

<Jordan Brownstein, Philosophy>



7. The idea that man is “the most perfect work of God on earth” appears in Andre Felibien’s influential 1667 formulation of an ordering of these concepts. For 10 points each:

[10m] Name these concepts organized into a hierarchy by the French Royal Academy. Jean-Antoine Watteau’s innovation of the *fête galante* subverted the rigidity of that hierarchy of these concepts.

ANSWER: genre [accept hierarchy of genres]

[10e] According to Felibien, this genre of painting lies at the bottom of the hierarchy of genres, as it depicts arrangements of inanimate objects such as “fruits, flowers, or seashells.”

ANSWER: still lifes

[10h] The hierarchy of genres is discussed in relation to *istoria*, or the creation of narrative through composition, in this theorist’s 1435 treatise *De Pictura*. His treatment of perspective was iterated upon by Piero della Francesca.

ANSWER: Leon Battista Alberti

<Aseem Keyal, Painting>

8. One of this man’s surviving poems contains the repeated onomatopoeia “taranderaï” as a representation of a nightingale singing. For 10 points each:

[10h] Name this prolific composer of Minnesang which includes “Palestine Song,” one of the few for which a melody has survived.

ANSWER: Walther von der Vogelweide [accept either underlined name]

[10m] Walther’s most famous poem, which shares a name with a central Berlin boulevard, is an account of two lovers meeting under this type of tree. In *The Sorrows of Young Werther*, Werther is buried beneath two of these trees.

ANSWER: linden trees [or lime trees]

[10e] Minnesänger, along with their contemporary troubadours and trouvères (“troo-VAIR”), sang primarily about the “courtly” type of this emotion, which often emphasized chivalry in the relationship between knights and their ladies.

ANSWER: love [or courtly love]

<Margaret Tebbe, European Literature>

9. George Washington declared that the Constitution “gives to bigotry no sanction, to persecution no assistance” in a letter to Moses Seixas, the warden of this synagogue. For 10 points each:

[10h] Name this synagogue, the oldest still standing in the United States. It was built in Newport, Rhode Island, under the guidance of its namesake Cantor, the leader of the Jeshuat Israel congregation.

ANSWER: Touro Synagogue

[10m] The first American synagogue to count women in a *minyan* (“MIN-yin”) was in this state’s capital under the leadership of Isaac Meyer Wise. Yankel Rosenbaum was killed in much later riots in this state over the trampling of two Guyanese children.

ANSWER: New York

[10e] This state boasted the largest population of Jews in the early 1800s. Francis Salvador, the first Jew to die in the American Revolution, emigrated from London to this state’s city of Charleston.

ANSWER: South Carolina

<Emmett Laurie, American History>

10. Kamuy-Fuchi is an Ainu deity of these domains who gained the name “People Teacher” for instructing women on how to make girdles. For 10 points each:

[10m] Name these domains. Zao Jun became a Chinese deity of these domains after he set himself on fire upon recognizing his estranged wife.

ANSWER: **kitchen** deity [or **hearth**; prompt on **home** by asking “what part of the home?”]

[10e] The Ainu term for spirits in their mythology is similar to this Japanese word for deities including Amaterasu and Susanoo.

ANSWER: **kami**

[10h] Ainu people sacrifice these animals after raising them for two years in the Iomante (“ee-oh-MAHN-tay”) practice. Onikumas are demon varieties of these animals known for stealing livestock.

ANSWER: **bears**

<NourEddine Hijazi, Belief>

11. The current generated by two photon absorption as a function of interferometer optical delay is used to determine this function for the pulse. For 10 points each:

[10h] Name this function that, for a function  $f$ , equals the integral of the product of “ $f$ -of- $t$ ” and “ $f$  of the quantity  $t$  plus tau.” The Wiener–Khinchin theorem relates the Fourier transform of this function to the power spectral density.

ANSWER: **autocorrelation** [prompt on **correlation**]

[10e] In two photon absorption, the difference in energy levels between the excited state and this state is the sum of the photon energies. This state is the lowest energy state of an atom.

ANSWER: **ground** state

[10m] Two photon absorption could be used for 3D optical storage, but few materials have a high value of this quantity for it. This quantity is measured in units called barns.

ANSWER: **cross section** [accept total **cross section**; accept differential **cross section**]

<Jonathen Settle, Physics>

12. Professor Kasavubu has a dream that he transforms into this female character in the novel *The Last Days of Louisiana Red*. For 10 points each:

[10h] Name this character who in her original appearance calls her wealthy father “Mr. Capitalist.” In a pivotal scene, this character’s drunken mumbling nearly alerts a blind woman to a chauffeur’s presence.

ANSWER: **Mary Dalton** [accept either underlined part; do not accept or prompt on “Mrs. Dalton”]

[10e] Mary Dalton is accidentally killed by Bigger Thomas in this novel by Richard Wright.

ANSWER: **Native Son**

[10m] *Native Son* is a fixation of Professor Kasavubu in the aforementioned novel *The Last Days of Louisiana Red*, which is a sequel to this Black postmodernist’s novel *Mumbo Jumbo*.

ANSWER: Ishmael **Reed**

<Taylor Harvey, American Literature>

13. The “forest-people” of this island, the Wanniyala-Aetto, have largely stopped their practice of moving around different plots called “chenas” as its government forces them into villages. For 10 points each:

[10e] Name this island whose early history is detailed in the *Mahavamsa*, which details its rule by Sinhalese Kings. Ashoka’s son Mahinda converted the rulers of this island to Buddhism.

ANSWER: **Sri Lanka**

[10m] The largest collection of relics of the Buddha are housed at the Ruwa Vali Saaya, built by King Dutugamunu after defeating this dynasty. Under Rajaraja the Great, this dynasty built the Brihadisvara temple in Thanjavur.

ANSWER: **Chola** dynasty

[10h] The *Mahavamsa* also detailed the conquest of the Sri Lankan Yakkha people by its first Sinhalese King, whose name was this word. The “City of” this word names an empire founded by Harihara I. Original language term required.

ANSWER: **vijaya** [or Prince **Vijaya** or **Vijaya** I; accept **Vijayanagara**]

<Emmett Laurie, World History>

14. In Romans 11:17–21, St. Paul compares the righteous to one of these specific objects that Gentiles can be a part of, but they must “not be arrogant, but tremble.” For 10 points each:

[10h] Identify these objects that God says that the Israelites will have plenty of in Deuteronomy 28 despite not being able to use them. Earlier, God says that they are “for the stranger, for the fatherless, and for the widow.”

ANSWER: **olive trees** [prompt on partial answer]

[10m] In Matthew 24, Jesus discusses apocalyptic events with the disciples on the Mount of Olives before giving a parable about one of these plants. Jesus cursed one of them before driving out the money changers from the temple.

ANSWER: **fig** tree

[10e] This prophet deemed the Earth inhabitable when a dove brought him an olive leaf. In a discussion about the end times, Jesus discusses the unpreparedness of the people at the time of this prophet who were not expecting a flood.

ANSWER: **Noah** [or **Noach**]

<NourEddine Hijazi, Belief>

15. Robert Merrifield won the Nobel Prize in Chemistry in 1984 for discovering solid phase peptide synthesis. For 10 points each:

[10m] To avoid undesirable polymerization reactions, amino acids on Merrifield resins are covalently bound to Boc and Fmoc, which function as these groups that prevent side reactions.

ANSWER: **protecting** groups

[10h] The final step in Merrifield peptide synthesis involves peptide bond formation, which is usually catalyzed by these two kinds of carbodiimide (“CAR-bo-DIE-IMM-ide”). Name either.

ANSWER: **DCC** or **DIC** [or N,N’-**dicyclohexylcarbodiimide**; or **diisopropylcarbodiimide**]

[10e] After bond formation, the ester bond to the resin is typically cleaved by this weak acid. This strongest weak acid is also used for etching glass and contains the most electronegative halogen.

ANSWER: **hydrofluoric acid** [or **HF**]

<Paul Lee, Chemistry>

16. The composer of this piece spent two years recording factory noises for its “Interpolations of Organized Sound.” For 10 points each:

[10h] Name this longest work by Edgard Varèse (“vah-REZZ”), a four-movement work for 14 wind and brass soloists, piano, and percussion interspersed with three pioneering interludes for electronic tape.

ANSWER: Déserts (“day-ZAIR”)

[10m] In 2019, a composer with this surname wrote *Become Desert* as a sequel to his 2014 orchestral work *Become Ocean*. Another composer with this surname wrote a “Desert Chorus” for the opera *The Death of Klinghoffer*.

ANSWER: Adams [accept John Luther Adams or John Coolidge Adams]

[10e] Steve Reich set William Carlos Williams poems to music in *The Desert Music*, one of his many works in this musical style. Reich and Philip Glass compose works in this simple, repetitive style.

ANSWER: minimalism [or word forms]

<Michael Yue, Music>

17. The ADAR family can promote alternative splicing by causing this specific change in functionality in double-stranded RNA. For 10 points each:

[10h] Name this kind of chemical reaction catalyzed by the AID/APOBEC (“aid-APP-oh-beck”) family of enzymes to interconvert bases in DNA or mRNA.

ANSWER: deamination [accept deaminases]

[10e] As cytidine deaminases, APOBECs convert cytosine to this other pyrimidine, which replaces thymine in RNA.

ANSWER: uracil [or U]

[10m] In B cells, this process is aided by cytidine and adenosine deaminases that edit immunoglobulin loci, and potentially even mRNA transcripts. After exposure to an antigen, this process generates point mutations that contribute to the diversity of immunoglobulins.

ANSWER: somatic hypermutation

<Shan Kothari, Biology>

18. This character has an arrangement with her father to dress with different levels of lavishness, depending upon the time of day. For 10 points each:

[10m] Name this character, who attracts Charles Marlow’s attention with her “refined simplicity” rather than her family’s fortune while in disguise as a barmaid.

ANSWER: Kate Hardcastle [accept either underlined name]

[10h] Against his father’s wishes, Charles Marlow ultimately proposes to Kate, in spite of the fact that during their first conversation, she repeatedly performed this action.

ANSWER: finished his sentences [or equivalent]

[10e] Kate Hardcastle dresses as a barmaid to attract the attention of Charles Marlow in *She Stoops to Conquer*, a play by this British author of *The Vicar of Wakefield*.

ANSWER: Oliver Goldsmith

<Sarah Potts, British Literature>

19. This concept was invoked by the organization Abahlali baseMjondolo (“ah-ba-LA-lee ba-sem-jon-DOH-lo”), during their campaigns ahead of the 2010 World Cup. For 10 points each:

[10h] Name this right that Henri Lefebvre put forth as a “cry and a demand” in a book titled for it. Given this right, people can make and re-make certain spaces for themselves.

ANSWER: the right to the city [or *le droit a la ville*]

[10m] This critical geographer supported Lefebvre’s idea of the “right to the city” and wrote about the ways capitalism bends space to its advantage in *Social Justice and the City*.

ANSWER: David Harvey

[10e] More recently, Harvey has published several popular guides for reading this author’s works, which include *Das Kapital* and *Grundrisse*.

ANSWER: Karl Marx

<Margaret Tebbe, Social Science>

20. Titled in reference to Martin Luther, the publication of the Twelve Theses heralded the first of these events, which targeted the Institute of Sex Research run by Magnus Hirschfeld. For 10 points each:

[10m] Name these events that were seemingly prophesied by a line from Heine’s *Almansor*. A speech declaring “No to decadence and moral corruption!” accompanied the largest of them, which occurred in the Opernplatz.

ANSWER: Nazi book burnings [accept book burnings in Germany; accept Säuberung; prompt on book/literature destruction, censorship, restriction, or similar answers by asking “in what manner?”]

[10e] Although he nearly didn’t attend for fear of his pro-Jewish comments being unearthed, this rat-like *Reichsminister* of Propaganda gave that aforementioned speech.

ANSWER: Joseph Goebbels

[10h] Goebbels organized numerous “morality trials” and declared a fake paper shortage following the publication of this 1937 document, which attacked Hitler as a “mad prophet possessed of repulsive arrogance.” Copies of it were smuggled into thousands of churches to be read on Palm Sunday.

ANSWER: Mit brennender Sorge [or “With Burning Concern”; accept On the Church and the German Reich]

(by Pius XI)

<Tracy Mirkin, European History>