

2025 ACF Regionals

Packet I by Berkeley A, Cambridge B, Notre Dame A, Oxford A

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Tossups

1. This book's author adapted it into a stage play that inserts the character of Madame de Katkoff and adds a happy ending in which the two leads marry. This work's title character tells the protagonist, "I prefer weak tea!" over his advice after they discuss flirting. A girl in this work refuses to get into a carriage with her love interest and his aunt because she sees them as "stiff." Mrs. Costello sniffs at the idea that this novella's protagonist rowed over to the Castle of Chillon alone with a girl he first meets in Vevey, Switzerland. This novella's title character, a native of Schenectady, New York, is caught by the protagonist on a date with Giovanelli in the Colosseum. For 10 points, Winterbourne romances the title American girl before she dies of Roman fever in what novella by Henry James?

ANSWER: **Daisy Miller**

<Berkeley A, American Literature>

2. Renaissance paintings of Christ with this trait inspired a two-word Latin phrase coined by Leo Steinberg in a book partly titled for "Modern Oblivion." Ten men with this title trait fight in front of dense vegetation in an engraving by the Florentine goldsmith Antonio del Pollaiuolo ("poll-eye-WO-lo"). John Berger wrote that one term for this trait is a state of being whereas a synonym is a conventionalized artistic construct, responding to a "Study of Ideal Art" titled for a subject with this trait by Kenneth Clark. Daniele da Volterra removed depictions of this trait, earning the nickname *Il Braghettone*, in edits to Michelangelo's *Last Judgment* made after the Council of Trent condemned this trait's depiction in religious art. For 10 points, Renaissance artists often avoided depicting what trait via the inclusion of fig leaves?

ANSWER: **nudity** [or being **nude**; or **nakedness**; accept equivalents like being **unclothed**; accept answers mentioning display of the **genitals** or equivalents; prompt on **sexuality** or **sexualized** by asking "as depicted via what visual characteristic?"] (Leo Steinberg coined the phrase *ostentatio genitalium*, or "display of the genitals," in *The Sexuality of Christ in Renaissance Art and in Modern Oblivion*.)

<TM, Painting and Sculpture>

3. Temples in this religion were envisioned as being surrounded by service-providing buildings called "dependencies" in a set of letters called *This Decisive Hour*. The founder of this religion claimed that a temple represented the "Manifestation of God" in a tablet written in the shape of a pentagram, collected in the *Summons of the Lord of Hosts*. The "Greatest Name" is often inscribed on the domes of temples of this religion, which are known as "Dawning-places of the Praise of God." The oldest extant temple in this religion is located in Wilmette, Illinois. A temple of this religion consists of 27 marble standing petals, has nine doors, and is surrounded by nine ponds. For 10 points, the Lotus Temple in New Delhi is a "House of Worship" of what monotheistic religion founded by Bahá'u'lláh?

ANSWER: **Bahá'í** [or **Bahá'í** Faith] (*This Decisive Hour* was written by Shoghi Effendi to the American Bahá'í community.)

<Notre Dame A, Religion>

4. The bookseller and magician Girolamo Scotto mainly published collections of works in this genre by composers like the extremely prolific Philippe de Monte and this genre's "father," Philippe Verdelot ("vair-duh-LO"). A piece in this genre opens with the whole note chords C-sharp major, A minor, B major, G major with chromatically descending outer voices. Nicholas Yonge's ("young's") *Musica Transalpina* collects Italian pieces in this genre descended from the *frottola* that inspired English examples like "The Silver Swan" by Orlando Gibbons. "Moro, lasso, al mio duolo" is among the highly chromatic works in this genre by a composer known for murdering his wife *in flagrante delicto*, Carlo Gesualdo ("jezz-WALL-doh"). For 10 points, name this secular genre of vocal music often contrasted with the motet.

ANSWER: **madrigal** [or **madrigaux**; prompt on **song**]

<JC, Classical Music>

5. *Two answers required.* One of these cities agreed to partition the other city's lands with Louis XII in the Treaty of Blois ("blwah"). A treaty between these two cities that set their border at the Adda River established forty years of peace through the Most Holy League. Pope Alexander VI arranged an alliance named for one of these cities after the other invited Charles VIII to invade Naples. Thirty years of war between these two cities ended with the Treaty of Lodi. One of these cities was granted to Francis I after the War of the League of Cambrai, which began as a coalition against the other. A *condottiero* conspired with one of these city's Council of Ten to betray the other city's Ambrosian Republic found after the end of Visconti rule. For 10 points, name these cities ruled respectively by doges of the Dandolo family and dukes of the Sforza family.

ANSWER: **Venice** AND **Milan** [accept **Venezia** in place of "Venice"; accept **Milano** in place of "Milan"]

<EC, European History>

6. A theorem about these processes states that ones with "zero deficiency" have cyclic composition trajectories with positive composition only when they are weakly reversible. Stable periodic instances of these processes that exhibit "excitability" may self-organize in the presence of radiation. Ilya Prigogine ("pre-GO-zhin") described how these processes are driven by a force called "affinity," defined as a derivative with respect to the "extent" of one of these processes. The quantity "delta G-dagger" appears in the exponential of Eyring's theory of these processes. Plotting the "coordinate" of these processes against potential energy produces a bump whose energy difference is necessary for "activation." For 10 points, name these processes whose rate constants are described by the Arrhenius equation.

ANSWER: chemical **reactions** [accept chemical **reaction** networks; prompt on **transition state** formation]

<Oxford A, Chemistry>

7. In a novel by this author, a penniless man nicknamed "Apollo" ironically receives a large raise only after breaking up with his rural fiancée to pursue the wealthy urbanite Alexandrina. In that novel by this author, Lily Dale is courted by Adolphus Crosbie while living in the title dower house with her mother. In this author's longest novel, Augustus Melmotte devises a speculation scheme based on a railroad in Utah. The surgeon John Bold challenges the charitable income going to a cathedral precentor created by this author named Septimus Harding. A series of six novels set in a county created by this author include *The Small House at Allington* and *The Warden*. For 10 points, name this prolific Victorian novelist who wrote *The Way We Live Now* and the *Chronicles of Barsetshire*.

ANSWER: Anthony **Trollope**

<TH, British Literature>

8. A sovereign nation named for this tribe was established by a Loyalist veteran who looted the Panton, Leslie, and Company store, only to be captured by Spain. This tribe's Chief Opothleyahola ("oh-POTH-lay-ah-HO-la") faced Confederate attacks on the Trail of Blood on Ice. This tribe, whose members included William Augustus Bowles, exiled the Yamacraw chief Tomochichi. Peter McQueen and William Weatherford led this Hitchiti-speaking tribe in an attack on white residents of Fort Mims, 35 miles north of Mobile. This tribe's Red Stick faction fought against the United States during a series of wars that included the Battle of Burnt Corn. For 10 points, the Treaty of Fort Jackson ended a war named after what tribe that clashed with Andrew Jackson in the Southeastern US?

ANSWER: **Muscogee** [or Muscogee **Creek**; or **Mvskoke**; or State of **Muscogee**; prompt on **Red Sticks** until read]
<Oxford A, American History>

9. Thurston proved that a knot must have this property if it is not a torus knot or a satellite knot. A space with this property has as its orientation-preserving isometries the group of real Möbius transformations with determinant one. Spaces with this property have curves called horocycles, can be modeled in two dimensions by Poincaré's half-plane and disk, and have constant negative curvature. This property is the first word in a class of functions derived from the pair " e -to-the- x plus-or-minus e -to-the-negative- x all over two." Lobachevsky names a non-Euclidean geometry with this property, which breaks the parallel postulate and has triangles whose angles sum to less than 180 degrees. For 10 points, what property derives from the name of a conic section exemplified by the function one-over- x ?

ANSWER: **hyperbolic** [accept **hyperbola**; accept **hyperbolic** functions or **hyperbolic** trigonometric functions]
<Oxford A, Other Science>

10. This thinker's fear of "material invention" is discussed to open Richard Sennett's book *The Craftsman*. This thinker's focus on political action is critiqued in *The Burnout Society* by Byung-Chul Han, whose book written "In Praise of Inactivity" is titled for a concept discussed by this thinker. This thinker analyzed the Sputnik launch in a book that posits the victory of *animal laborans* over *homo faber*. This thinker's last work, *The Life of the Mind*, elaborates on a contrast between ways of life based on labor and reflection, the *vita activa* and *vita contemplativa*. A book by this thinker examines a man who claimed to follow Kant's categorical imperative in court testimony. For 10 points, what author of *The Human Condition* coined the term "banality of evil" in her book *Eichmann in Jerusalem*?

ANSWER: Hannah **Arendt** [or Johanna **Arendt**] (The latter book by Byung-Chul Han is *Vita Contemplativa: In Praise of Inactivity*.)
<TM, Philosophy>

11. During an 1891 civil war in this country, the steamship company CSAV brought a case against the US, claiming that the *Itata* was wrongly detained. British settlers mutinied against David Cheap off this country's coast, as recounted in David Grann's book *The Wager*. This country's navy under Jorge Beauchef led an expedition that was defeated at the Battle of Mocopulli. Two American sailors were stabbed in front of the "True Blue Saloon" in this country, triggering the *Baltimore* crisis. In a war with a northern neighbor, this country's *Esmeralda* sank at the Battle of Iquique ("ee-KEE-kay"). After the Battle of Chacabuco, this country's general Bernardo O'Higgins laid the foundations for its modern Navy. For 10 points, name this country whose navy defended seaports like Valparaíso.

ANSWER: **Chile** [or Republic of **Chile**; or República de **Chile**]
<NS, World History>

12. To study this disease, the Karmanos Institute at Wayne State University derived the MCF7 and MCF10A cell lines. Classification of this disease can be done using the Nottingham index or BI-RADS. A particularly aggressive form of this disease presents with an “orange peel” appearance from pressure on Cooper’s ligaments. It’s not related to bones, but Paget’s disease often indicates an underlying case of this disease, which may involve dissection of the axillary lymph nodes and can be treated with SERMs like tamoxifen. The absence of HER2, estrogen, and progesterone receptors characterize the “triple negative” form of this disease. Susceptibility to this disease is increased by mutations in two genes named for it called BRCA (“bra-ka”) 1 and 2. For 10 points, name this type of cancer screened for by a mammogram.

ANSWER: **breast cancer** [accept triple negative **breast cancer** or inflammatory **breast cancer** or **IBC**; prompt on **cancer** until read]

<MS, Biology>

13. A location that is part of this archaeological site was dubbed the “Murder House” due to the two skeletons that were found when it was excavated. The Clayton Collection comprises pottery found at this site. One text found at this site includes a request sent to the wife of Cerialis (“keh-ree-AH-liss”) to “make the day more enjoyable” by her arrival. Tablet 208, a recipe that uses garlic and *conditum*, is one of a hoard of letters found at Vindolanda at this site. In 2023, tree vandalism occurred at the Sycamore Gap, which is found along the 73-mile span of this site. This structure was built south of a similar one named for Antoninus to defend against attacks from Caledonia. For 10 points, what structure was named for the Roman emperor who ordered it built on the border between Britannia and lower Scotland?

ANSWER: **Hadrian’s Wall** [or **Vallum Aelium** or **Picts’ Wall**; accept **Housesteads**; accept **Vindolanda** until read] (The first line refers to Housesteads. The birthday invitation was sent from Claudia Severa to Lepidina.)

<Oxford A, Other History>

14. In 2022, fans of this team embraced a song by OH Goody and its instruction to put your “left hand up.” A running back for this team, who recovered from injuries sustained in an armed robbery in just six weeks, was interviewed wearing a comically large baseball hat. In a playoff game, this team nearly forfeited a touchdown after its linebacker from American Samoa repeatedly jumped the line of scrimmage in an attempt to stop the Tush Push. Jim Nantz called this team’s stadium a “madhouse” after a Hail Mary pass fortuitously bounced to Noah Brown. In 2024, this team dramatically improved when Dan Quinn was hired a season after sexual harassment lawsuits forced out former owner Dan Snyder. For 10 points, Jayden Daniels plays for what NFL team formerly known by a name offensive to Native Americans?

ANSWER: **Washington** Commanders [or Washington **Commanders**; accept **Washington Football Team**; accept Washington **Redskins**; prompt on **Football Team**]

<EC, Pop Culture>

15. Mid-century poets in this language were cultivated by the Blue Star Poetry Society. The contemporary “lower body poets” write in this language, also used by the Neustadt Prize-winning poet of the collection *Words as Grain* whose pen name consists of the same name twice. The journal *Today* published lexically “obscure” poems in this language by members of the anti-formalist Misty Poets. English-language books about poetry in this language include *Sunflower Splendor* and Eliot Weinberger’s book titled for “19 ways” of looking at an 8th-century author. A “written vernacular” form of this language began to be used by poets in the May Fourth Movement. For 10 points, name this language whose contemporary poets may reference classical forms like *shī* (“shurr”) and *cí* (“tsih”).

ANSWER: written vernacular **Chinese** [or Classical **Chinese**; or Literary **Chinese**; accept **Mandarin**; accept Modern **Chinese** or Standard **Chinese** or **baihuawen** or **wényánwén** or **gǔwén** or **zhōngwén** or **hànyǔ**] (The poet in the second line is Duo Duo. Eliot Weinberger wrote *19 Ways of Looking at Wang Wei*.)

<TH, World Literature>

16. A list for achieving this two-word concept includes an instruction to “avoid the byzantine oddity of associated and disassociated concepts.” A thinker’s outline on using this two-word concept by being “a good craftsman” was extended in “On Intellectual Craftsmanship.” A book titled for this two-word concept states that “the ultimate problem of freedom” is the “Cheerful Robot.” That book, which criticizes Talcott Parsons’s “grand theory,” refers to this two-word concept’s application by Paul Lazarsfeld as “abstract empiricism.” People who understand this two-word concept can connect “private troubles to public issues.” For 10 points, name this two-word concept of understanding personal experiences within a broader social context, which titles a book by C. Wright Mills.

ANSWER: **sociological imagination** [or *The Sociological Imagination*; prompt on imagination; reject “intellectual craftsmanship”]

<NS, Social Science>

17. A courtyard on the west side of this structure has an iron chain suspended from its entrance to force anyone who enters on horseback to bow their head. Parts of this structure inspired by fauna include four pillars nicknamed “elephant feet” and chandeliers that, to ward off nesting spiders, contained ostrich eggs. This structure’s architect allegedly misheard the adjective “gold” as “six” when receiving directions for the design of its towers, which was controversial since only one other such structure had that many towers. The entire ceramics industry of Iznik was dedicated towards this structure, which a teenage monarch built in the 1610s next to the Hippodrome to surpass the beauty of the Hagia Sophia. For 10 points, what place of worship in Istanbul is nicknamed for the color of its tiles?

ANSWER: **Blue Mosque** [or **Sultan Ahmed Mosque**; or **Sultan Ahmet Camii**] (The mosque of the Kaaba was the only other mosque to have six minarets at the time of the Blue Mosque’s construction.)

<AP, Other Fine Arts>

18. The seer Idmon foresaw his own death by one of these animals, but joined the Argonauts anyway. After failing to correctly guess how many offspring would be born to one of these animals, Calchas (“KAL-cuss”) lost a divination contest to his rival Mopsus and subsequently died of shame. A man trapped one of these animals in deep snow to bring it back alive to Tiryns. While hunting one of these animals as a boy with his grandfather Autolycus, Odysseus suffered a scar on his thigh. The brothers Toxeus and Plexippus were killed by their nephew after a dispute over the spoils of one of these animals. Oeneus’s (“EE-nee-us’s”) failure to dedicate the first fruits of the harvest led Artemis to punish him by sending one of these animals. For 10 points, what animal did Atalanta and Meleager kill because it was ravaging Calydon?

ANSWER: **boars** [accept Calydonian **Boar**; accept **sows**; prompt on pigs]

<AR, Mythology>

19. For a play by an author from this country, Es Devlin designed a Tony-winning set shaped like a rotating glass box. In that play from this country, three actors play multiple generations of a family beginning with Henry, Emanuel, and Mayer. Short monologues inspired by Biblical apocrypha, sometimes in grammaire, comprise a “comedic mystery play” from this country denounced by the Vatican. The *Lehman Trilogy* is by an author from this country, as is a play in which a man with a fake pegleg pretends to be a bishop, judge, and forensic expert while outwitting policemen. The Maniac gets the Superintendent to reveal that he pushed a man out of a window in a play by an author from this country, *Accidental Death of an Anarchist*. For 10 points, name this home country of Stefano Massini and Dario Fo.

ANSWER: **Italy** [or **Italia**; or **Italian Republic**; or Repubblica **Italiana**] (The third sentence refers to Fo’s *Mistero Buffo*.)

<Berkeley A, European Literature>

20. A form of this phenomenon studied by Aldert van der Ziel that occurs in the abelian sandpile model is sometimes named for the fact that it obeys an inverse power law with an exponent between 1 and 2. So-called “dark current” occurs due to a type of this phenomenon discovered via experiments in vacuum tubes. A form of this phenomenon is modelled as a Poisson process and occurs due to electric charge quantization. Thermal agitation produces a form of this phenomenon named for Johnson and Nyquist. A form of this phenomenon has a constant power spectral density across all frequencies and is called its “white” form. For 10 points, name this random fluctuation of a signal, which in audio devices is responsible for the sound of static.

ANSWER: noise [accept shot noise, white noise, pink noise, one-over- f noise, Poisson noise, or Johnson–Nyquist noise]

<Berkeley A, Physics>

Bonuses

1. This anthropologist argued that the patriarchal “exchange of women” via exogamy was as vital to developing symbolic thought as exchanging signs via communication. For 10 points each:

[10e] Name this anthropologist who distinguished between primitive and civilized cultures in *The Savage Mind*. This French anthropologist wrote *Tristes Tropiques* (“treest tro-PEEK”) and *Mythologiques*.

ANSWER: Claude **Lévi-Strauss**

[10m] Lévi-Strauss outlined the “exchange of women” as part of his alliance theory, which he developed in a book on this concept. David Schneider outlined real and fictive forms of this concept in a book on its “American” form.

ANSWER: **kinship**

[10h] This anthropologist pulled from Lévi-Strauss’s kinship theories, including the “exchange of women,” in “The Traffic in Women,” which outlines the political economy of sex. This anthropologist also wrote “Thinking Sex.”

ANSWER: Gayle **Rubin** [or Gayle S. **Rubin**]

<Oxford A, Social Science>

2. A poetry collection titled for this character describes “the wine through our eyes we drink” and inspired a piece that pioneered the *Sprechstimme* (“SHPRECK-shtim-uh”) technique. For 10 points each:

[10e] Name this “sad clown” character from the *commedia dell’arte* tradition. Arnold Schoenberg adapted an Albert Giraud (“zhee-ROH”) cycle titled for this character “moonstruck,” or “lunaire.”

ANSWER: **Pierrot** (“p’yeh-ROH”) [accept **Pierrot lunaire**]

[10h] This novel’s narrator quotes the line “the wine through our eyes we drink” and provides an image of the score from *Pierrot Lunaire* while describing Ungargassenland. The narrator of this novel by Ingeborg Bachmann disappears into a crack in the wall.

ANSWER: **Malina**

[10m] Theodor Adorno’s explanations of Schoenberg’s twelve-tone technique aided in the conception of this novel, which caused a feud between Schoenberg and its author. This novel follows the composer Adrian Leverkühn.

ANSWER: **Doktor Faustus** (by Thomas Mann)

<Oxford A, European Literature>

3. *Note to moderator: Review the pronunciation of the first answerline when judging.* The burstsort algorithm uses dynamic arrays and these data structures to achieve cache-aware sorting. For 10 points each:

[10h] Name these data structures whose memory-optimized form can be used to implement radix sort. Bitwise implementations of these data structures can be optimized into their “x-fast” and “y-fast” forms.

ANSWER: **trie** (“try”) [or **tries**; or **prefix trees**; prompt on search **trees**]

[10e] Tries (“try’s”) commonly use prefixes of these data types as keys, which can then be parsed in search engines. In C, these data types are defined as null-terminated arrays of characters.

ANSWER: **strings** [prompt on **words** or **text**]

[10m] A trie (“try”) is the output of this efficient greedy algorithm for lossless compression in which more frequently-accessed strings correspond to shorter prefix codes.

ANSWER: **Huffman** coding

<MY, Other Science>

4. *Note to moderator: Read the answerline carefully.* The earliest appearance of a motif about this task comes from Saxo Grammaticus, who writes that Harald Bluetooth ordered Palnatoki to do it while drunk. For 10 points each:
[10m] Name this task performed in another tale on the order of the bailiff Gessler, by a man who refused to bow to a hat placed on a pole. A description is acceptable.

ANSWER: shooting an apple off the head of one's child [prompt on archery or shooting by asking "what is the target?"; prompt on shooting an apple or apple-shot or Apfelschuss by asking "off of what?"; prompt on shooting at one's child or shooting at the head of one's child]

[10e] The most famous instance of the apple-shot motif comes from the story of this Swiss folk hero who titles a Rossini opera.

ANSWER: William Tell [or Guillaume Tell]

[10h] In another myth, this character must shoot an apple off his son's head at the instigation of king Nidud. This skald writes runes in his blood on a horn, thereby destroying it and thwarting a poisoning attempt, in a text titled for him that may share authorship with the *Heimskringla*.

ANSWER: Egil [or Aigil; or Egil Skallagrímsson; accept Egil's Saga]

<Oxford A, Mythology>

5. In 2011, one of these facilities in Oregon ran into issues when the local climate's effect on cold aisle containment caused a literal cloud to form inside the building and begin raining. For 10 points each:

[10m] Name these facilities that often receive tax breaks in remote towns but may stretch local grids. A "colocation" or "colo" ("CO-lo") is one of these facilities that rents out space, in contrast to "enterprise" ones.

ANSWER: data centers [accept web farms or cloud computing centers or computing clusters or server arrays or server parks or similar answers; prompt on servers or warehouses; reject "supercomputers"]

[10e] The densest data center hub in the world is in this state's Data Center Alley around Ashburn, which is part of this state's Dulles Technology Corridor west of Arlington and Alexandria.

ANSWER: Virginia [or VA]

[10h] Everest Pipkin's essay on the invisibility of data centers calls them examples of these anonymous spaces.

Marc Augé's ("oh-ZHAY's") book on the "anthropology of supermodernity" coined this term for spaces like hotels and airports.

ANSWER: non-places (Pipkin's essay is "It Was Raining in the Data Center.")

<Berkeley A, Other Academic>

6. In one process, the time between these phenomena is bounded by an expression whose numerator contains the time-bandwidth product of a distribution, which for Gaussian profiles is 0.441. For 10 points each:

[10h] Name these phenomena that were generated in a Kerr cell by Hellwarth and McClung in 1961 through a process that periodically adjusts the Q-factor of a resonator.

ANSWER: laser pulses [accept pulsed lasers; prompt on lasers; prompt on laser peaks or laser intensity peaks by asking "what causes those?"]

[10m] Pulse generation can occur through a process that is said to "lock" either these patterns or phase. Coupled systems produce the "normal" form of these patterns at resonant frequencies.

ANSWER: modes [accept normal modes or mode-locking]

[10e] Another method for pulse generation is gain-switching, where the gain of a laser is the change in this quantity. In electronic amplifiers, gain is usually quantified as a ratio of this quantity measured in watts.

ANSWER: power [accept optical power]

<Cambridge B, Physics>

7. One of these objects belonging to the Seven Sacred Rites called a *chanupa* was gifted to the Lakota people by White Buffalo Calf Woman. For 10 points each:

[10e] Name these objects that some Native American nations used to signify the reaching of peace.

ANSWER: pipes [or ceremonial pipes; or calumets]

[10m] The *chanupa* is smoked inside one of these structures during another of the Seven Sacred Rites, the *inipi* ceremony. The door of these structures is opened four times, which purifies the individual inside.

ANSWER: sweat lodges [prompt on lodges]

[10h] Participants in this one of the Seven Sacred Rites are only allowed to smoke the *chanupa*, instead of food or water. This rite, which often occurs after the *inipi*, involves isolating oneself for four days.

ANSWER: hanbleceya [or hanblecha; or hanbléčeyapi; accept vision quests or crying for visions; prompt on answers describing receiving visions]

<AK, Religion>

8. A statue of this character is unveiled at the garden party of Belle Radclyffe twenty years after he leads a trek through the wilderness. For 10 points each:

[10m] Name this fictional German explorer based on the naturalist Ludwig Leichhardt. This character proposes to Laura Trevelyan in a novel by the author of *Riders in the Chariot* and *The Vivisector*.

ANSWER: Johann Ulrich Voss [or Johann Ulrich Voss]

[10e] *Voss* was written by Patrick White, one of this country's most acclaimed fiction writers along with Gerald Murnane, Peter Carey, and Thomas Keneally.

ANSWER: Australia [or Commonwealth of Australia]

[10h] This Australian-born author's scientist characters include the astronomer Ted Tice from her novel *The Transit of Venus*. This author won the Miles Franklin Award and the National Book Award for *The Great Fire*, published after a decades-long creative silence.

ANSWER: Shirley Hazzard

<Cambridge B, World Literature>

9. Answer the following about deep focus cinematography, for 10 points each.

[10e] Chinese-American cinematographer James Wong Howe won an Oscar for his deep focus imagery of this state for the film *Hud*. Roger Deakins shot the Coen brothers' film *No Country for Old Men*, which is set in this state.

ANSWER: Texas [or TX]

[10h] The critic André Bazin admired this cinematographer's deep focus shots in William Wyler films like *The Best Years of Our Lives*. Orson Welles praised this cinematographer's visual innovations on his film *Citizen Kane*.

ANSWER: Gregg Toland [or Gregg Wesley Toland]

[10m] Toland refined his deep focus craft on this director's film of *The Grapes of Wrath*. *My Darling Clementine* is among the many films this director shot in Monument Valley.

ANSWER: John Ford [or John Martin Feeney]

<AP, Other Fine Arts>

10. Answer the following about discs from ancient Europe, for 10 points each.

[10e] The Phaistos (“FESS-toss”) disc from this civilization features 45 distinct glyphs in an undeciphered script. This civilization, centered on Crete, used the Linear A script to write its language.

ANSWER: **Minoan** civilization [accept **Keftiu**]

[10m] Spiral discs made of bronze wire were interred with cremated remains in a burial discovered at this site in 2023. This Austrian town is the type-site of a culture that broadly succeeded the Urnfield and preceded the La Tène (“la ten”).

ANSWER: **Hallstatt** [accept **Hallstatt** culture]

[10h] A Bronze Age disc found at Nebra in Germany, originating from the Únětice (“OON-yeh-tit-seh”) culture, has been called the oldest known concrete depiction of these phenomena. A general description is acceptable.

ANSWER: **astronomical** phenomena [accept **sky**; accept **Sun**; accept **Moon**; accept **stars**; accept **Pleiades**; accept clear equivalents such as **celestial** bodies; accept Nebra **sky** disc]

<Berkeley A, Other History>

11. A 1955 study of this process by Townes and Holtfreter demonstrated that it can happen spontaneously to minimize free energy in the differential adhesion hypothesis. For 10 points each:

[10m] Name this process controlled in one organism by dpp and inhibited by Sog. During this process, the marginal zone undergoes convergent extension and involutes the blastoral lip.

ANSWER: **gastrulation** [accept short **gastrulation**; prompt on **morphogenesis** or **embryogenesis** or **embryonic development**]

[10e] Dpp and Sog control dorsal-axis formation in this model insect popularized by Thomas Hunt Morgan.

ANSWER: **fruit fly** [or ***Drosophila melanogaster*** or ***D. melanogaster***]

[10h] Anterior–posterior axis patterning in *Drosophila* is determined by maternal effect genes like this protein that patterns the head and thorax with *Hunchback*. The first discovered morphogen was this protein, which when mutated causes a lethal phenotype in which the insect develops a longer abdomen instead of its head.

ANSWER: **Bicoid** [or ***bcd***; accept **homeotic protein bicoid**]

<Oxford A, Biology>

12. While trying to make a dramatic entrance at an artists’ colony by climbing through the window, this author first saw his future wife by candlelight, prompting his essay “On Falling in Love.” For 10 points each:

[10h] Name this author whose relationship with his older, gun-toting American wife Fanny Van de Grift Osbourne is examined in Camille Peri’s book *A Wilder Shore*. This author wrote “Virginibus Puerisque” and three other essays on marriage.

ANSWER: Robert Louis **Stevenson**

[10e] Stevenson burned the first draft of this novella and started over after receiving negative feedback from Fanny. In this novella, an elixir transforms a London physician into a monstrous killer.

ANSWER: ***Dr. Jekyll and Mr. Hyde*** [or *Strange Case of Dr. Jekyll and Mr. Hyde*; accept ***Jekyll and Hyde***]

[10m] Peri’s book documents the 1888 breakdown of Stevenson’s friendship with this one-legged author, who inspired Long John Silver. This poet wrote “I am the captain of my soul” in “Invictus.”

ANSWER: William Ernest **Henley** [or W. E. **Henley**]

<TH, British Literature>

13. The novel *Wolf Hall* fictionalizes the reception of a real-life miniature by Hans Holbein in which Anne Boleyn is allegorically depicted as this woman. For 10 points each:

[10m] Name this Old Testament woman. J. M. W. Turner partly modeled his painting *Dido Building Carthage* on a 1648 seascape by Claude Lorrain titled for this woman's "Embarkation."

ANSWER: Queen of **Sheba** [accept **Bilqis** or **Makeda**] (Claude Lorrain's painting is *The Embarkation of the Queen of Sheba*.)

[10h] This artist's *The Visit of the Queen of Sheba to King Solomon* allegorizes a trip by the Duchess and Duke of Mantua to her native Bologna. Hypertrichosis explains the hairy face in this artist's painting of Antonietta Gonzales.

ANSWER: Lavinia **Fontana**

[10e] The Queen of Sheba's visit to Solomon fittingly appears on the mantle of Caspar, one of these people, in Hieronymus Bosch's depiction of the Adoration, in which these people visit the infant Jesus.

ANSWER: Three **Magi** [or Three **Wise Men**; or **Three Kings**]

<TM, Painting and Sculpture>

14. An author with this first name tells the addressee, "I love you for your brownness / and the rounded darkness of your breast" in the poem "To a Dark Girl." For 10 points each:

[10e] Give this first name of a Harlem Renaissance poet with the surname Bennett. Another poet with this first name created a group of pool players who exclaim, "We / Jazz June. We / Die soon." in "We Real Cool."

ANSWER: **Gwendolyn** [accept **Gwendolyn** Bennett; accept **Gwendolyn** Brooks or **Gwen** Brooks]

[10h] The narrator wishes, "I want to see the slim palm trees / pulling at the clouds / with little pointed fingers" in a Gwendolyn Bennett poem with this title. Another poem with this title repeats the question, "what is Africa to me?"

ANSWER: "**Heritage**" (The other poem is by Countee Cullen.)

[10m] Bennett contributed the story "Wedding Day" to a one-issue magazine titled for this thing. This thing titles a book that recounts a talk with Elijah Muhammad in the section "Letter from a Region in my Mind."

ANSWER: **fire** [accept **Fire!!** or *The **Fire** Next Time*]

<HG, American Literature>

15. According to some tales, this tribe was founded by the son of a wolf, who also appears in the *Epic of Ergenekon*. For 10 points each:

[10h] Name this Turkic tribe. This tribe's leader Bumin rebelled against the Rouran Confederation and founded the First Turkic Empire, which was led by this ruling clan of the Göktürks.

ANSWER: **Ashina** clan [or **Asena**]

[10e] Rulers of Rouran used this title that was later adopted by Bumin and the Göktürks. In the 13th century, this title was adopted by Temüjin.

ANSWER: **khan** [or **khagan**; accept Genghis **Khan** or Chinggis **Khan**; prompt on **emperor**]

[10m] This emperor adopted the title Tengri Qaghan after conquering the Eastern Turkic Khaganate in 630. This man had his brothers assassinated at Xuanwu Gate in order to succeed his father Gaozu as the second Tang emperor.

ANSWER: Emperor **Taizong** of Tang [or **Li Shimin**; prompt on **Li**]

<Oxford A, World History>

16. This institution names a theme in which the strings play [read slowly] “long G, triplet G A-flat B-flat, long G” over pulsing woodwinds and an expressive horn call. For 10 points each:

[10h] Name this institution where Howard Hanson composed a theme for his second symphony that ends all concerts at this institution.

ANSWER: **Interlochen** Center for the Arts [prompt on ICA or Inty]

[10m] Interlochen’s summer camp traditionally concludes by playing this most famous tone poem of Franz Liszt, which uses a “C B E” motif and was originally intended to precede his choral cycle *The Four Elements*.

ANSWER: *Les **Préludes***

[10e] Van Cliburn, who plays this instrument, performed at Interlochen for 18 consecutive summers. Other players of this instrument include Glenn Gould and Martha Argerich.

ANSWER: **piano** [or **pianoforte**]

<Berkeley A, Classical Music>

17. Melissa Butler argued that this philosopher was a proto-feminist by citing a letter to Mary Clarke in which he claimed to find “no difference of sex in [the] mind.” For 10 points each:

[10m] Name this philosopher whose letters to Clarke and her husband grew into a book urging harsh conditions for children, titled *Some Thoughts Concerning Education*.

ANSWER: John **Locke**

[10e] Locke patronized Catharine Trotter Cockburn and praised her influential “Defence” of his “Essay Concerning” this two-word subject. It also partly titles an “Enquiry” by David Hume.

ANSWER: **human understanding** [accept *An Essay Concerning Human Understanding* or *An Enquiry Concerning Human Understanding*]

[10h] Jonathan Edwards mocked Locke as the “governor of the seraglio at Oates” after his correspondence with this philosopher led him to move in with her family. This author of *A Discourse Concerning the Love of God* was the daughter of a philosopher who theorized the world’s “plastic nature.”

ANSWER: Damaris **Masham** [or Damaris Cudworth **Masham**; or Damaris **Cudworth**; or Lady **Masham**] (Her father was Ralph Cudworth.)

<TM, Philosophy>

18. An illegitimate son with this name had a hunched back from his kyphosis and died as a monk in the Benedictine abbey of Prüm. For 10 points each:

[10m] Give this name of a mayor of the palace who overthrew Childeric III. That king of this name forced the Lombards to recognize Pope Stephen II's control over the territory around Ravenna through a Donation.

ANSWER: **Pepin** [accept **Pippin**; accept **Pepin** the Short or **Pepin** the Hunchback]

[10e] Pepin the Short was the father of this Frankish ruler, who was the father of Pepin the Hunchback. This ruler was crowned the first Holy Roman Emperor by Pope Leo III in 800.

ANSWER: **Charlemagne** [or **Charles the Great** or **Carolus Magnus**; prompt on **Charles** or **Carolus**]

[10h] Pepin the Hunchback's life was recorded by the monk Notker, who was nicknamed "Balbulas" for having this condition. Charles the Fat was succeeded in France by his son Louis, who was nicknamed for this condition.

ANSWER: **stammer** [accept word forms like **stammering** or the **Stammerer**; accept **stuttering** or word forms; accept Louis le **Bègue**; prompt on **speech impediment**]

<EC, European History>

19. A molecule with this structure was used by James Stoddart to create artificial "molecule muscles" that mimic the actions of myosin and actin. For 10 points each:

[10h] Name this mechanically interlocked architecture that consists of a dumbbell-shaped molecule threaded through a macrocycle. Molecules with this structure can be synthesized through clipping, capping, slipping, and snapping.

ANSWER: **rotaxanes**

[10m] This effect is why the inner thread of a rotaxane is stable. This effect is also why the bulkier tert-butyl bromide is more likely than methyl bromide to undergo an SN1 reaction.

ANSWER: **steric** hindrance [or **steric** effects]

[10e] Recent applications of rotaxanes have involved using them as nanovalves to deliver these compounds into the human body. These compounds may be classified by their mechanism of action or mode of action by the FDA.

ANSWER: **drugs** [or **medicine**]

<Berkeley A, Chemistry>

20. Answer the following about the role pine trees played in the colonial US, for 10 points each.

[10e] The nickname "Pine Tree State" refers to this Northeast state, where the British built pine tree masts for their Navy at ports such as Portland.

ANSWER: **Maine** [or **ME**]

[10h] A New Hampshire governor from this family enforced a law criminalizing cutting down large pine trees, leading to the Pine Tree Riot. A member of this family named Benning issued land grants in the Province of New Hampshire.

ANSWER: **Wentworth** family [accept Sir John **Wentworth**, 1st Baronet; accept Benning **Wentworth**]

[10m] Joseph Reed, who designed the Pine Tree Flag in 1775, represented Philadelphia as part of committees of correspondence created by this politician. James Otis and this politician co-authored the Massachusetts Circular Letter.

ANSWER: **Samuel Adams** [or **Sam Adams**; prompt on **Adams**]

<Cambridge B, American History>