**Penn Bowl 2022: Fla Pornanlo**

**Packet 1**

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Tossups

**1. Higher percentages of this material correspond to physically longer processed samples in the ribbon test. Clumps of this material used to absorb grease and oil are called Fuller’s earth. A type of this material called bentonite is mixed with water to make drilling mud. An increasing presence of this material is represented by the left axis of the soil texture triangle. This material names a group of minerals that includes illites and (\*)** kaolin. The presence of this material can be tested by measuring its adsorption of methylene blue dye. This material, which displays plastic behavior when wet, can be formed via the weathering of shale. This sediment features grains near 2 micrometers in diameter, making it more fine-grained than silt or sand. For 10 points, name this fine-grained soil material that can be fired to make ceramics.

ANSWER: **clay**s [accept **clay** minerals; prompt on sediment; prompt on dirt; prompt on soil before it is read]

<Harvey, Other Science>

**2. Women in this myth system who used antelope horns and peeled cactuses to pleasure themselves led to the birth of headless monsters called Ayane. In these people’s mythology, a black stone sinking to the bottom of a lake heralded the creation of death. A goddess of these people was impregnated by the sun, who gave birth to these non-Mayan people’s “Hero Twins”. In this myth system,** (\*) First Man and First Woman emerged through several chaotic worlds, and eventually gave birth to Changing Woman. The Milky Way was formed in these people’s legends when stars were tossed from a blanket by the impatient Coyote. A popularly misunderstood shape-shifting monster of these people is the skin-walker. For 10 points, the *Diné Bahane’* is the creation story of what people of the American Southwest?

ANSWER: **Navajo** people [accept **Diné** before it is read]

<Tsai, Mythology>

**3. In one play, a man asks a group of these people, “What’s the matter, you dissentious rogues, / That, rubbing the poor itch of your opinion, / Make yourselves scabs?” In that play, these people are compared to body parts like the “great toe” in foolish conflict with the “good belly.” In another play, a man tells these people, “You are not wood, you are not stones, but men,” as he explains why he will not read them a leader’s (\*)** will. The title general goes into exile after failing to ingratiate himself to these people in Shakespeare’s late tragedy *Coriolanus*. In another play, a mob of these people shout, “Tear him for his bad verses!” as they murder Cinna the Poet. For 10 points, name these people whom Mark Antony addresses as “friends” and “countrymen” in his funeral oration for Julius Caesar.

ANSWER: **citizen**s of **Rome** [or **Roman**s or **plebeian**s; accept synonyms such as **Roman commoners** or **people of Rome**; prompt on citizens and similar answers by asking “from what polity?”]

<French, British Literature>

**4. A politically active composer from this country who set Neruda’s *Canto General* to music was arrested by its military while his *Mauthausen Trilogy* premiered in London. This country’s folk styles include laïkó and rebetiko. A composer from this country built Nemo Studios to record two soundtracks featuring the Yamaha CS-80, his favorite synthesizer. Mexican-American actor Anthony Quinn popularized a smash hit dance from this country called the (\*)** sirtaki. An American-born soprano from this country lost eighty pounds between performances as Norma. A theme by a composer from this country plays over slow-motion shots of runners on a beach in the opening of *Chariots of Fire*. Turkish immigrants developed a lute variant most popular in this country’s music, the bouzouki. For 10 points, Vangelis and Maria Callas were from what European country?

ANSWER: **Greece** [or **Hellas**; or **Hellenic** Republic; accept ancient **Greece**] (The composer mentioned in the lead-in is Mikis Theodorakis, who also composed “Zorba the Greek,” the theme for the sirtaki.)

<Perumalla, Other Fine Arts (Mixed Auditory Arts)>

**5. In 2000, Spain returned the remains of a man thought to have been born in this country that had been stuffed for taxidermy display in Banyoles until 1991. Tourists to this country are often taken across water bodies in canoe-like boats called mokoro. Translations of names associated with this country include “rain” for its currency, the pula, and “place of small stones” for Jwaneng, a city home to the world’s richest (\*)** diamond mine. A literary character operates the No. 1 Ladies Detective Agency in this country. Englishwoman Ruth Williams’s marriage to this country’s first president may have influenced the choice of its national animal, the zebra. That leader, Seretse Khama, oversaw a rapid rise in literacy in this country, which contains the delta of the Okavango River. For 10 points, what country’s border with South Africa is 15 kilometers from its capital Gaborone?

ANSWER: **Botswana** [or Republic of **Botswana**]

<Perumalla, Geography>

**6. This book lends its name to a collection containing a series of poems about the bookshop girl Chiaretta (“k’yah-RAY-tuh”), the major collection by Triestini poet Umberto Saba. A poem in this collection consisting mostly of paradoxes contains the lines “I fly above the heavens, and lie on earth, / and I grasp nothing and embrace the world.” The speaker of the second poem in this collection is “bewildered by this first assault” after being shot in the heart “where every other arrow had been blunted.” The recurring image of golden (\*)** hair blowing in the breeze peppers this collection, which reflects on an event that occurred on Good Friday in Avignon. This collection of 366 poems opens by addressing “You who hear the sound in scattered rhymes.” For 10 points, the poet’s love for Laura is the main focus of what book by Petrarch?

ANSWER: *Il* ***Canzoniere*** [accept ***Song Book*** or ***Book of Songs***; accept ***Rime Sparse***; accept ***Rerum vulgarium fragmenta*** or ***Fragments of common things***; accept ***Scattered Rhymes*** until “scattered” is read]

<Harvey, European Literature>

**7. An artist who worked in this style visited Egypt and copied a Seurat bridge painting as inspiration for color works like *Gala* and *Shadow Play*. Richard Anuszkiewicz’s (“ah-noosh-k’YAY-vich’s”) *Translumina* series exemplifies this non-French style. It’s not minimalism, but Donald Judd coined this style’s name in a *Time* review of a Julian Stanczak (“STAHN-chak”) exhibition. Paintings in this style motivated by “planetary folklore” were featured at an exhibition called *The Responsive* (\*)** *Eye*. A painting in this style depicts the interlocking limbs of two zebras. Grids of black-and-white squares attenuate as they meet in a painting in this style, *Movement in Squares*. Contrasting colors that create the appearance of depth are featured in works in this style by Victor Vasarely and Bridget Riley. For 10 points, works in what 20th-century artistic style often create feelings of dizziness via visual illusions?

ANSWER: **op** art [or **optical** art; accept **optical** illusions; accept **opto-kinetic** art; prompt on kinetic art; prompt on abstract art] (The painter in the lead-in is Bridget Riley. Victor Vasarely developed the idea of “planetary folklore.”)

<Perumalla, Painting & Sculpture>

**8. One of these texts that states “deeds are only with intentions” begins the most famous member of a genre of collections that consist of exactly forty of these texts. A foundational thirteenth-century work on the terminology and analysis of these texts is “Introduction to the Science of” these texts. Ignác (“IG-nahts”) Goldziher argued that the great majority of these texts are later fabrications. The most significant collections of these texts are the (\*)** Six Books. These texts are classified as authentic, good, or weak depending on their chain of transmission. Several of these texts describe a certain figure’s Farewell Sermon. The most trusted collection of authentic, or sahih, examples of these texts was compiled by al-Bukhari. These texts claim to trace back to events witnessed by a Companion. For 10 points, name these texts describing the words and actions of Muhammad.

ANSWER: **hadith** [or ’a**hadith**; accept **athar**]

<Hinkle, Religion>

**9. The deciphering of writings from these people by Bedrich Hrozny supported the theory of Aryan invasion of India. An early ruler of these people claimed to be a “Man of Kussara,” the still-unfound city that was briefly their first center. Modern historians believe that a king of these people is the same person as Labarna I, as *labarna* was also the title used by their rulers. Modern historians generally downplay the traditional view that these people’s rapid rise to power around (\*)** 1500 BCE came from a monopoly over new metal working technology. These people expanded into Syria under king Šuppiluliuma I (“shuh-pill-uh-lee-OO-muh”), whose grandson Muwatalli II signed a peace treaty with Ramses the Great after the battle of Kadesh. For 10 points, name these Anatolian people, early users of iron whose kingdom was ruled from Hattusa.

ANSWER: **Hittites** [or **Hatti**]

<Christensen, Other History (Ancient)>

**10. Deactivation of the APG genes that regulate this process in yeast leads to rapid cell death under certain conditions. In mammals, toll-like receptor 7 detects viral RNA from vesicular stomatitis to begin a cascade that ultimately induces this process. One protein involved in that cascade, galectin-8, inhibits (\*)** mTOR to induce this process following lysosomal damage. Huntingtin, the cause of Huntington’s disease, is involved in the chaperone-assisted selective type of this process, which is essential in regulating cells under mechanical stress like muscle cells. One form of this process is induced by animals after birth; that same process is induced by nutrient starvation. For 10 points, name this cellular process of recycling unnecessary components, derived from the Greek for “self-eating.”

ANSWER: **autophagy** [or **autophagocytosis**]

<Cope, Biology>

**11. This leader had six thousand workers under the ONC build the model rural town of Sabaudia in less than a year. This leader’s son built the massive “Cinema City” film studio that was later used during a boom named for a nearby river. For the abortive 1942 World’s Fair, this leader ordered the construction of grand modernist buildings now used as museums and archives constructed in the (\*)** EUR district. This leader initiated a program of draining marshes called the Battle for Land to create more farmlands for the Battle for Grain. On behalf of his country’s king, this leader signed a 1929 agreement with Pius XI delineating a new country’s territory in the Lateran Treaty. For 10 points, name this dictator who recognized the independence of the Vatican and led Italy during World War II.

ANSWER: Benito **Mussolini** [or Benito Amilcare Andrea **Mussolini**]

<Christensen, European History>

**12. A story by this author ends with the narrator angrily rummaging through a medicine cabinet after his wife blames him for her oversleeping. A character in another story by this author recalls a time in his boyhood when he wet his pants at the bottom of a well he got pulled out of by his father. The narrator of that story by this author promises to answer “Hello, sugar” to his wife on New Year’s after comparing himself to the protagonist of “To Build a Fire.” This author created a character who lost his wife Beulah to cancer and tugs his beard as a** (\*) TV show about the Middle Ages plays. This author set one story at Frank Martin’s “drying-out” facility, and wrote another story in which the blind Robert holds the narrator’s hand as he draws the title building. For 10 points, name this minimalist author of “Where I’m Calling From” and “Cathedral.”

ANSWER: Raymond **Carver** [or Raymond Clevie **Carver** Jr.] (The story in the first line is “Vitamins.”)

<Petrosino, American Literature>

**13. In this region, the Michenzani housing scheme built East German *Plattenbauten* apartment complexes in an area restricted to natives accessible by ferry, Ng’ambo. Aboud Jumbe oversaw the merger of this region’s principal party, whose first post-independence leader was Abeid Karume. John Okello led a revolution in this region which brought the (\***) ASP to power; the ASP would later merge with another party to form its country’s ruling party, Chama Cha Mapinduzi. This region’s clove trade was centered on Pemba Island. A ruler from the Busaid Dynasty, Seyyid Sultan, made this region the final capital of the Omani Empire. For 10 points, name this archipelago that merged with Tanganyika to make modern-day Tanzania.

ANSWER: **Zanzibar** archipelago [prompt on the Swahili Coast or Tanzania]

<Christensen, World History>

**14. Technetium catalyzes the oxidation of hydrazine by this compound. A solution of this compound is the initial solvent for reprocessing spent nuclear fuel in the PUREX process. Condensation of this compound and alcohols yields an unusual class of esters that are highly explosive. This compound forms a yellow product with aromatic amino acids, especially tyrosine, that is used to test for proteins via the xanthoproteic reaction. The esterification of this compound and (\*)** cellulose produces a highly flammable or explosive substance sometimes called guncotton. Concentrated solutions of this compound are called “fuming” and often have a red-brown color due to released gases. A mixture of this compound and hydrochloric acid that dissolves gold is called aqua regia. For 10 points, name this acid that is produced by oxidizing ammonia.

ANSWER: **nitric acid** [or **HNO3**]

<Hinkle, Chemistry>

**15. Franklin D. Roosevelt organized a patent pool to resolve a feud between a company run by this family and one that developed the prize-winning June Bug. Walter Brookins pioneered a spiral dip while on a team named for this family, which disbanded after the deaths of the “heavenly twins” Arch Hoxley and Ralph Johnstone. This family feuded with the Smithsonian after it allowed Glenn Curtis to modify a (\*)** Samuel Pierpont Langley design before retesting it. Gustave Whitehead may have predated a feat accomplished by this family at Kill Devil Hills. Two members of this family used a homemade wind-tunnel to test technology inspired by the twisting of a bicycle tire box. For 10 points, give this last name of brothers Orville and Wilbur, who first achieved flight at Kitty Hawk.

ANSWER: **Wright** family [or **Wright** brothers; accept Orville **Wright** or Wilbur **Wright**]

<Laurie, American History>

**16. One of these pieces in D major and 3/8 (“three-eight”) time opens with punctuated broken chords ascending over two octaves before introducing a dominant minor theme with a constant A evocative of an open guitar string and a long-short-short-short-short motif imitating castanets. Along with a fandango, about 150 of these pieces make up the primary non-organ output of the Catalan composer and monk Antonio Soler. Thirty of these pieces with a binary structure were dedicated to João V of Portugal. The Longo and (\*)** Kirkpatrick catalogs primarily list pieces in this genre, such as the *Essercizi*, which were written while their Italian composer was serving the Spanish court. For 10 points, Domenico Scarlatti wrote 555 pieces in what form, which also names the musical structure defined by an exposition, development, and recapitulation?

ANSWER: keyboard **sonata** [accept harpsichord **sonata**; accept answers like Scarlatti’s keyboard or harpsichord **sonatas**; prompt on keyboard or harpsichord pieces by asking “in what form?”; prompt on *esscerzizi*, exercises, or etudes by asking “those pieces are in what form?”]

<Harvey, Classical Music & Opera>

**17. One philosopher wrote a rebuttal of one of this thinker’s ideas after hearing a soldier in Paris use it to claim that he would share St. Peter’s destiny and be saved. This thinker used an earlier philosopher’s idea that “the soul never thinks without an image” to support an extended mind thesis that argues think abstractly. Aquinas criticized this non-Greek thinker’s theory that there is a single human capacity for (\*)** knowledge outlined in his commentary of *On the Soul*, called the “unity of intellect.” Western followers of this thinker followed a doctrine that science and religion could separately reveal contradictory but valid “double truths.” For 10 points, name this medieval thinker known as “the Commentator” on Aristotle, who defended himself from Al-Ghazali’s criticism in *The Incoherence of the Incoherence*.

ANSWER: **Ibn Rushd** [or **Averroes**; or Abū l-Walīd Muḥammad Ibn ʾAḥmad **Ibn Rušd**]

<Christensen, Philosophy>

**18. The dissipation rate of kinetic energy of a certain model is replaced by this quantity in a model formulated by Baldwin and Barth. Time-reversal symmetric motion cannot achieve net displacement when this quantity is low according to the scallop theorem. By including convective acceleration, Oseen equations avoid Stokes’ paradox, which arises due to incorrectly assuming that this quantity is small.** **This quantity and the (\*)** Darcy–Weisbach friction factor are plotted on a Moody diagram. A phenomenon modeled by the k-epsilon model occurs at high values of this quantity, in which eddies and vortices are formed. This quantity is defined as the ratio of inertial forces to viscous forces. For 10 points, what dimensionless quantity used to determine if a flow is laminar or turbulent is named for an Irish physicist?

ANSWER: **Reynolds number** [prompt on Re]

<Law, Physics>

**19. This author described “a cool wind… blowing on me, sending my sleeves dancing and fluttering” at the end of a poem describing the view from a tower. In another poem, this author described “pine trees” that “hang inverted” on a cliff above “rushing torrents and waterfalls.” In that poem, this author laments that his road is “as difficult as climbing to the blue sky.” In another poem, this author sees a waterfall “flying down three thousand feet,” then wonders “if it’s the (\*)** Milky Way descending from heaven.” A poem by this author describes “white dew” that soaks a woman’s “silk stockings” as she gazes at the “autumn moon.” This author of “The Road to Shu is Hard” and “Lament of the Jade Stairs” wrote a poem that begins, “Bright moonlight before my bed, / I think it is frost on the ground.” For 10 points, name this Tang dynasty poet of “Quiet Night Thought.”

ANSWER: **Li Bai** [or **Li Po** or **Li Bo** or **Li Taibai**; prompt on Li] (The unnamed poems are “Climbing the Yueyang Tower with Xia Shi’er” and “Gazing at a Waterfall on Mount Lu.”)

<French, World Literature>

**20. Sociologist Robin Leidner has analyzed the effect of this industry on the speech of workers in a book about the “Routinization of Everyday Life.” The nature of poor-quality jobs in this industry inspired a term coined by sociologist Amitai Etzioni. A movement that seeks to counter the influence of this industry was founded by Carlo Petrini. Predictability and control are central to an analysis of this industry based on Weber’s work on scientific management and bureaucracy written by (\*)** George Ritzer. Two countries with a specific business in this industry have never gone to war according to peace theory written about by Thomas Friedman. The high presence of this industry and low presence of grocery stores lead to food deserts. For 10 points, name this industry criticized for employing teenagers in low-paying McJobs.

ANSWER: **fast food** restaurants [accept **quick service restaurant**s; prompt on restaurants or food service]

<Christensen, Social Science (Sociology)>

Bonuses

1. Along with his student Jean-Baptiste Pater, this artist pioneered the *fête galante*, a genre of painting defined as figures in extravagant dress cavort in outdoor settings. For 10 points each:

[10e] Name this artist. With François Boucher (“boo-SHAY”) and Jean-Honoré Fragonard, this artist was a leader of the Rococo style, exemplified by his painting *The Embarkation for Cythera*.

ANSWER: Jean-Antoine **Watteau**

[10m] Before his death from tuberculosis, this was Watteau’s last major painting. A worker packs away a portrait of Louis XIV in this painting, which was intended to serve as an advertisement for the titular art dealer.

ANSWER: ***Gersaint’s Shop Sign*** [or *L’****Enseigne de Gersaint***; or The **Shop Sign of Gersaint**]

[10h] Watteau’s artwork *Head of A Man* was created using a French technique that involved using three colors of this material. Boucher’s *Young Country Girl Dancing* was created using a tortillon and this material on paper.

ANSWER: **chalk** [or ***crayon***; accept *trois* ***crayon***]

<Harvey, Painting & Sculpture>

2. The loss of energy due to this phenomenon causes the decay of the orbits of the Hulse-Taylor binary pulsar. For 10 points each:

[10e] Name these distortions in spacetime predicted by general relativity. They were first detected by LIGO in 2015.

ANSWER: **gravitational wave**s [or **gravitational radiation**; reject “gravity waves”]

[10m] LIGO uses two of these instruments that are four kilometers long. The Fabry–Perot variety of these devices is made up of two partially reflective surfaces that form an optical cavity.

ANSWER: **interferometer**s [or **etalon**s]

[10h] This successor to LIGO could enable the detection of ultra-compact binaries and intermediate mass black hole binaries by operating at much lower frequencies. It consists of three spacecraft that form an equilateral triangle and is planned to launch in 2037.

ANSWER: **LISA** [or **Laser Interferometer Space Antenna**]

<Law, Physics>

3. Psychologist George Miller proposed that the “magic number” for the capacity of one form of this facutly was “seven plus-or-minus two.” For 10 points each:

[10e] Name this faculty, whose “working” form” is described by a three-part model that includes the central executive and the visuospatial sketchpad.

ANSWER: working **memory**

[10h] This psychologist worked with Graham Hitch to compose the three-part working memory model to improve upon the earlier “multi-store model” proposed by Atkinson and Shiffrin.

ANSWER: Alan **Baddeley** [or Alan David **Baddeley**]

[10m] The limited capacity of working memory can be supplemented by the use of this technique, in which smaller bits of information are grouped into larger, more familiar units to improve short-term retention.

ANSWER: **chunk**ing [accept word forms]

<Torres, Social Science (Psychology)>

4. There are no efficient methods of computing the discrete log, thus it can be implemented as a practical example of this method. For 10 points each:

[10h] Identify this method used by Hashcash for the bitcoin mining algorithm. A party in this method demonstrates that a statement is true without revealing any additional information.

ANSWER: **zero-knowledge proof** [or **ZKP**; or **zero-knowledge protocol**]

[10e] The Feige–Fiat–Shamir scheme is a type of zero-knowledge protocol that uses this mathematical operation to limit the number of communications. This operation returns the remainder of one of its inputs when divided by the other input.

ANSWER: **mod**ulus [or **mod**ulo; accept **modular arithmetic**]

[10m] ZKP is useful for the dining cryptographers problem, which studies how to perform a secure multi-party computation of this operation. This operator returns true only if the two inputs are different.

ANSWER: **XOR** [or **exclusive or**]

<Law, Other Science>

5. A short, non-linear novel by the Australian author Gerald Murnane in which writers work in a wing of a huge mansion is titled *A Million Windows*, referencing a metaphor from this essay. For 10 points each:

[10h] Name this essay that conceptualizes creative writing through the metaphor of a “house of fiction.” The author of this essay, which is collected in the *New York Edition* of his works, describes his time spent on the Riva degli Schiavoni in Venice.

ANSWER: **preface** to *The* ***Portrait of a Lady*** [prompt on preface by asking “to what novel?”; reject “*The Portrait of a Lady*” alone]

[10e] This author included a preface to his own novel *The Portrait of a Lady* in the *New York Edition* of his works, which extensively revises the original novels.

ANSWER: Henry **James**

[10m] Despite being set in New York, this Henry James novel about the romance between Catherine Sloper and Morris Townsend was not included in the *New York Edition* of his works.

ANSWER: ***Washington Square***

<Petrosino, American Literature>

6. A song named for one of these people may have inspired the Beatles’ song “All My Loving.” For 10 points each:

[10h] Name or describe this group of six people, the eldest of which was named after Darius Milhaud and taught jazz in South Africa. Due to a Columbia Records error, a “waltz” named after one of these people that melds 4/4 and double-waltz time was misspelled with a K rather than a C.

ANSWER: Iola and Dave **Brubeck**’s **child**ren [accept synonyms for children like **kid**s; accept the **Brubecks**; prompt on Brubeck; prompt on children by stating “Either give their shared surname or name either of their parents.”] (The song is “Kathy’s Waltz.”)

[10e] Brubeck credited his wife Iola for the idea to play at these places across the United States, where he recorded albums like *Jazz at Oberlin*. Brubeck received an honorary award from one of these places, Berklee, in Boston.

ANSWER: **college**s [or **universities**; accept music **college**s; accept music **school**s; accept **conservatories**; accept music **department**s; accept music **academies**]

[10m] This musician composed “Crepuscule with Nellie” to raise his wife’s spirits while she was having surgery. An album titled for this musician’s “blues” features “Rootie Tootie,” his tribute to his son, and “Straight, No Chaser.”

ANSWER: Thelonious **Monk**

<Perumalla, Other Fine Arts (Jazz)>

7. After this event, the cyclops and hecatoncheires were re-imprisoned under the guard of the monstrous Campe. For 10 points each:

[10m] Name this event in which a figure was overthrown by his youngest son, leading to the Golden Age. Aphrodite is said to be born from the sea foam that resulted from this event.

ANSWER: **castration of Ouranos** [or descriptions of **Cronus overthrowing Ouranos**; accept **Kronos** in place of **Cronus**; accept **Uranus** in place of **Ouranos**]

[10e] The overthrow of Ouranos was undergone at the urging of this mother of Cronus, who also created his sickle. This primordial deity is the mother of all Titans and is the personification of Earth.

ANSWER: **Gaia** [or **Gaea**]

[10h] Cronus is often said to use a sickle made from either flint or a hard stone material known by this word. This word survives today mainly as an adjective.

ANSWER: **adamant** [or **adamant**ine; prompt on diamond; reject “adamantium,” which is what Wolverine has] (The word “diamond” shares similar etymological roots)

<Tsai, Mythology>

8. The sections of the Rig Veda are named for these things. For 10 points each:

[10e] Name these diagrams that represent the universe in Hinduism and Buddhism. The Hindu practice of making rangoli of these circular diagrams is similar to the Tibetan Buddhist practice of making them from sand.

ANSWER: **mandala**s

[10h] The “Śri” one of these diagrams, central to the Śri Vidya school of Śaktism, has several interlocking triangles. The bindu is the central point of these diagrams in which upward- and downward-pointing triangles represent Shiva and Shakti.

ANSWER: **yantra**s (“YUHN-truhs”) [reject “yatra,” “tantra,” or “mantra”]

[10m] Three-dimensional versions of the Śri Yantra are named for this place, which they represent. This place is often at the center of mandalas because it is believed in Hinduism and Buddhism to be the center of the universe.

ANSWER: Mount **Meru** [or **Mahameru**; or **Sumeru**; or **Sineru**]

<Hinkle, Religion>

9. A poem by this author exhorts, “Redeem the time. Redeem the unread vision in the higher dream.” For 10 points each:

[10e] Name this poet who described his conversion to Anglo-Catholicism in his poem “Ash Wednesday.” This poet quoted the Book of Common Prayer in his earlier poem, “The Waste Land.”

ANSWER: T.S. **Eliot** [or Thomas Stearns **Eliot**]

[10m] In this Eliot poem, the title group describes being “no longer at ease here, in the old dispensation” after having traveled home from a Birth that was “bitter agony” for them, “like Death.”

ANSWER: “**Journey of the Magi**”

[10h] Eliot quoted the first five lines of “Journey of the Magi” from a Nativity sermon by this bishop, whose prose Eliot praised over John Donne’s. Some of this bishop’s devotional writings were collected as his *Private Prayers*.

ANSWER: Lancelot **Andrewes**

<French, British Literature>

10. Susannah Carter’s book about a frugal one of these people heavily inspired the first American cookbook, *The American Cookery*, by Amelia Simmons. For 10 points each:

[10h] Give this type of person that titles a book often considered the first southern cookbook, published by a member of the Virginia-based Randolph family, Mary Randolph.

ANSWER: **housewife** [or **housewives**; or *The Frugal* ***Housewife*** or *The Virginia* ***Housewife***]

[10e] Forty years later, *The American Cookery* was surpassed by *The American Frugal Housewife*, written by an author with this last name. French cuisine was popularized in America by a chef named Julia with this last name.  
ANSWER: **Child** [or Lydia Maria **Child**; or Julia **Child**]

[10m] *The American Cookery* was published in this state by its Federalist elites, who promoted cultural works by people from it like Noah Webster’s *Blue Backed Speller*, Jedidiah Morse’s *American Geography*, and a group of so-called “Wits” named for its capital.

ANSWER: **Connecticut** [or **CT**]

<Laurie, American History>

11. Philosopher Jürgen Habermas didn’t just write about debates in the public sphere — he engaged in them too. For 10 points each:

[10e] In the 1990s, Habermas debated the formation of democratic legitimacy with this American philosopher, who imagined the original position in *A Theory of Justice*.

ANSWER: John **Rawls**

[10m] Habermas heavily criticized this thinker’s book on hermeneutics, *Truth and Method*, for its reverence of tradition when finding the meaning in texts. This thinker expanded on ideas briefly explained in Heidegger’s *Being and Time*.

ANSWER: Hans-Georg **Gadamer**

[10h] In *Truth and Method*, Gadamer argues that people have a consciousness affected by this discipline. Habermas claimed the work of this discipline was creating a “NATO philosophy” during a highly public dispute in West Germany during the 1980s.

ANSWER: **history** [accept answers involving the **history** of World War II, the Holocaust, or the Nazi regime]

<Christensen, Philosophy>

12. A dream-like novella by this author follows two brothers who study plant life around an idyllic bay before being disrupted by the Chief Ranger, who starts an apocalyptic war. For 10 points each:

[10h] Name this author of *On the Marble Cliffs*. This author wrote about being shot through the chest while acting as an assault troop during the spring offensive in a best-selling 1920 memoir.

ANSWER: Ernst **Jünger**

[10e] Jünger’s *Storm of Steel* is set during this conflict that also provides the setting of *All Quiet on the Western Front*.

ANSWER: **World War I** [or **WW1**; accept The **Great** War]

[10m] Jünger’s recently-translated memoir *A German Officer in Occupied Paris* details his friendship with this French author and film director who wrote *The Holy Terrors* and *The Infernal Machine*.

ANSWER: Jean **Cocteau** [or Jean Maurice Eugène Clément **Cocteau**]

<Harvey, European Literature>

13. Scott Kugle argued that Shaykh Kalimullah’s *Alms Bowl* is a response to this emperor’s breaking of the taboo against writing down Sufi meditation practices, which he did in *Compass of Truth*. For 10 points each:

[10h] Name this prince who fused Vedic and Sufi thought in *The Confluences of the Two Seas*. Mian Mir advised this prince, who lost a civil war to his brother at the Battle of Samugarh.

ANSWER: **Dara Shikoh**

[10m] Mian Mir was based in this city, whose fortress includes the Alamgiri Gate and faces the Badshahi Mosque. Ranjit Singh founded the Sikh Empire after capturing this city in 1799.  
ANSWER: **Lahore**

[10e] The Qadri sect influenced Muslim rulers of this empire like Dara Shikoh, whose father Shah Jahan also ruled it.

ANSWER: **Mughal** Empire

<Laurie, World History>

14. Answer the following about the piano accompaniment used in the lieder of Franz Schubert, for 10 points each:

[10e] In one lied, the pianist’s right hand is used to represent Gretchen’s spinning wheel through continual *pianissimo* sextuplets consisting of these notes. These notes are half the duration of eighth notes.

ANSWER: **sixteenth** notes [accept **semiquaver**s from the British]

[10m] Pounding octave triplets represent the urgent galloping of a horse in this spooky Schubert lied, which depicts a father riding through the night with his sick child, who is being courted by a mysterious demonic figure.

ANSWER: “**Erlkönig**” [accept “The **Elf-King**”]

[10h] The accompanist plays slow block chords and a descending triplet motif in this penultimate lied from Schubert’s posthumous collection *Schwanengesang* (“SHVAH-nin-guh-zong”), which sets a poem by Heine. Its singer woefully describes seeing a pale-faced figure in the window of his lover’s abandoned house.

ANSWER: “Der **Doppelgänger**” [or “The **Doppelgänger**”]

<Harvey, Classical Music & Opera>

15. The song “My Three Animals” euphemistically alludes to people in this profession, whose “animals sell better than McDonald’s burgers.” For 10 points each:

[10m] Name this profession whose members are the subject of many corrido-style ballads. The song “Tuyo” was written for a TV show about people in this profession whose first two seasons starred Wagner Moura.

ANSWER: illegal **drug** **trafficker**s [or **drug** **dealer**s; accept either underlined portion; accept ***Narco****s*; accept any answers alluding to the sale of **narcotic**s or **drug**s; prompt on criminal by asking “what crime are they known for?”] (The three “animals” in the song are marijuana, cocaine, and heroin.)

[10e] Los Cuates de Sinaloa wrote and performed “Negro y Azul: The Ballad of Heisenberg,” a narcocorrido which serves as the cold open for a Season 2 episode of this American crime drama starring Bryan Cranston.

ANSWER: ***Breaking Bad***

[10h] Narcocorridos often invoke this folk hero and unsanctioned patron saint of drug traffickers, the dedicatee of a major shrine in Culiacán, Sinaloa. In the *Breaking Bad* episode “Negro y Azul,” an El Paso DEA agent keeps a statuette of this figure on his desk.

ANSWER: Jesús **Malverde**

<Acosta, Popular Culture>

16. The sum of the normalized wavefunctions of all occupied orbitals for a molecule is the independent variable in this theory’s namesake mathematical structure. For 10 points each:

[10m] Name this theory used to predict the structure of molecules by replacing the molecule’s wavefunction with iterative predictions of the number of electrons per unit space.

ANSWER: **density functional** theory [accept **DFT**]

[10h] In DFT, the total energy of the system is calculated from the electron density via these equations. One of these equations sets the effective local potential equal to the exchange-correlation potential, the external potential, and a position integral.

ANSWER: **Kohn*–*Sham** equations

[10e] The first Kohn–Sham equation features a term where the reduced form of this constant is squared in the numerator. This fundamental quantum chemistry constant is symbolized with a lowercase h.

ANSWER: **Planck**’s constant

<Harvey, Chemistry>

17. Answer the following about the history of hats in early modern Europe, for 10 points each:

[10m] In this country, the pro-France Hats argued for expansion through wars with Russia, while the Caps advocated for peace during the 18th century. The Hats succeeded in launching a 1741 war that resulted in this country losing lands in Karelia.

ANSWER: **Sweden** [or **Sverige**; or Kingdom of **Sweden**; or Konungariket **Sverige**]

[10e] The popularity of hats made of this material was a major cause of the Russian expansion into Siberia and European colonization of Canada.

ANSWER: **fur** [accept **beaver** fur]

[10h] These cone-shaped headdresses, popular in renaissance France, were typically worn tilted backwards with veils. Some royal houses raised their doorways to accommodate these hats, whose height denoted a woman’s status in Burgundy.

ANSWER: **hennin**

<Christensen, European History>

18. Hibernation is an example of this general behavior, which usually occurs in unpredictable climates with high mortality rates. For 10 points each:

[10m] Identify this behavior in which organisms minimize their metabolic activities to conserve energy within their life cycle. Bacteria can survive antibiotics if they temporarily suspend the ability to reproduce by forming endospores in a variant of this behavior.

ANSWER: **dormancy** [accept **dormant**]

[10e] Hibernation is used by this group of vertebrates to endure the cold temperatures of winter months. Animals in this group have fur or hair, and their females produce milk for feeding their young.

ANSWER: **mammal**s [or **Mammalia**]

[10h] Invertebrates like snails and worms deal with hot and dry conditions with this form of dormancy. The *Gopherus* genus of desert tortoises engages in this phenomenon to avoid the risk of desiccation.

ANSWER: **estivation** [or **aestivation**]

<Law, Biology>

19. One city was exempt from contributing to this alliance after a ruler sent three hundred suits of armor to Athens, but was later compelled to join after the Battle of Megalopolis. For 10 points:

[10m] Name this alliance first suggested to one ruler by Isocrates of Athens. The house of Pindar was spared during the destruction of Thebes undertaken by this alliance’s hegemon.

ANSWER: **League of Corinth** [or **Hellenic League**]

[10e] The League of Corinth was first established by this King of Macedon, the father of Alexander the Great who was assassinated before he could lead a unified Greece against Persia.

ANSWER: **Philip II** of Macedon [prompt on Philip]

[10h] Though dissolved after the Lamian War, the League of Corinth was revived by Antigonus the One Eyed to oppose this ruthless *diadochi*, the son of Antipater who controlled Greece as regent and King of Macedon until his 297 BC death.

ANSWER: **Cassander** [or **Kassandros**]

<Christensen, Other History (Ancient)>

20. In one tale, a hyena accidentally stains this animal with excrement after this animal helps him remove a thorn from his tail, so this animal takes revenge by dropping every hyena out of the sky. For 10 points each:

[10h] Name this kind of animal. The dictatorial Ruler of Aburiria tries to get the Global Bank to fund his tower to heaven in a 2006 magic realist novel titled for one of these animals.

ANSWER: **crow** [or ***kagogo***; accept *Wizard of the* ***Crow*** or *Mũrogi wa* ***Kagogo***]

[10m] The tale of the crow and the hyena comes from the oral literature of this language. The author of *Wizard of the Crow*, Ngũgĩ wa Thiong’o (“n’GOO-gee wah thee-ON-go”), wrote it in this language, having rejected the use of English in *Decolonizing the Mind*.

ANSWER: **Gĩkũyũ** [or **Kikuyu**]

[10e] In the tale, the crow exemplifies this archetype, since he manipulates the hyenas by convincing them that clouds are big pieces of meat. The Igbo tortoise Mbeku and the Akan god Anansi both exemplify this archetype.

ANSWER: **trickster**

<French, World Literature>