

2022 ACF Regionals

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Packet I by Yale B, Gettysburg A, Duke A, McGill B, Waterloo

TOSSUPS

1. Bruce Lincoln, a scholar on the myths of these people, details his increasing methodological dissatisfaction in “The Two Paths.” A pair of oath-keeping deities of these people invoked as a single compound name title an essay on types of sovereignty in their society. Horses and a woolless sheep pity each other in a fable written in the language of these people by August Schleicher. A goddess-worshipping society existed before being overrun by these people in a hypothesis by Marija (“Maria”) Gimbutas. These people’s myths reflect division into priests, warriors, and farmers according to Georges Dumézil’s (“zhorz doo-may-ZEEL’S”) “trifunctional” hypothesis. The Vedic Dyauspiter and Latin Jupiter derive from these people’s “sky father.” For 10 points, name this hypothetical group who spoke the ancestral language of English and Sanskrit.

ANSWER: Proto-**Indo-Europeans** [or speakers of the Proto-**Indo-European** language; or **PIE**; accept people of the **Kurgan** culture; prompt on Indo-**Aryans**; reject “pre-Indo-Europeans”] (The second clue refers to Dumézil’s *Mitra-Varuna: An Essay on Two Indo-European Representations of Sovereignty*.)

<Mythology>

2. An anonymous ninth-century Irish poem describes the author and one of these animals “each of us two at his special art.” Another poem describes one of these animals who “is a servant of the Living God”; that section of Christopher Smart’s *Jubilate Agno* (“JOO-bill-ah-tay AG-no”), begins “For I will consider [one named] Joffrey.” A poem about one of these animals describes how “eight times emerging from the flood” she invoked “every watery god”; that elegy ends with the line, “Nor all that glisters gold.” In another poem, this is the second title animal that “ate with a runcible spoon” and “went to sea / in a beautiful pea-green boat.” Thomas Gray wrote an “Ode on the Death of a Favourite” one of these animals. For 10 points each, Edward Lear wrote a poem titled for the owl and what other animal?

ANSWER: **cats** [or **felines** or **kittens** or **pussycat** or other synonyms; “Ode on the Death of a Favourite **Cat**, Drowned in a Tub of Goldfishes”; accept “**Cat** and Mouse”; accept “For I will consider my **cat** Joffrey”] (The first line refers to “Pangur Bán.”)

<British Literature>

3. Jacobus de Varagine (“vah-RAH-jee-nay”) reconciled three different foundation myths of this city, all of which centered on different figures named Janus. A sailor from this city, Barocio Mallone, was attacked in Acre (“AH-ker”) by rivals who claimed ownership of a ship he had supposedly bought from pirates; this city lost the ensuing War of Saint Sabas. The development of interfamilial confederacies called *alberghi* in this city created the houses of Fieschi (“f’YESS-kee”) and Grimaldi. Jani Beg instructed his army to launch infected corpses into Caffa, one of this city’s Black Sea colonies, introducing the Black Death to Europe. This city chartered the Bank of Saint George to consolidate debt suffered from the War of Chioggia (“K’YOD-jah”) with Venice. For 10 points, name this Ligurian city, the birthplace of Christopher Columbus.

ANSWER: **Genoa** [or Republic of **Genoa**; or **Genova**; or **Zêna**]

<European History>

4. A component to increase this quantity present in turbojet engines is lacking in ramjet engines, so ramjets produce thrust only when the vehicle is moving. (read slowly) One minus the ratio of two values of this quantity raised to the power “gamma minus one all over gamma” (end read slowly) is the efficiency that the Brayton cycle predicts for a gas-turbine engine. The Maxwell relation for enthalpy equates a derivative with respect to this quantity at constant S and a derivative with respect to S with this quantity held constant. This quantity is plotted on the y -axis of diagrams that display a vapor dome where phases coexist. This quantity decreases in the first step of the Carnot (“car-NOH”) cycle. Work done by a gas equals this quantity times the change in volume. For 10 points, name this quantity measured in bars.

ANSWER: **pressure** [or **P**] (Ramjet engines do not have a compressor.)

<Physics>

5. Pieces in this form follow expanded binary first movements in Carl Friedrich Abel’s opus 2 Sonatas for Keyboard, Violin, and Cello. A brief 1751 piece in this form is the most famous work of the French violinist André-Joseph Exaudet. A piece in this form begins with the right hand playing the following: quarter note D, eighth notes G-A-B-C, quarter notes D-G-G. A pair of G major and minor keyboard pieces in this form long attributed to J. S. Bach is now generally attributed to Christian Petzold. A “celebrated” section in this form excerpted from an E-major string quintet is the best-known piece by Luigi Boccherini (“bo-care-REE-nee”). For 10 points, name this stately, triple-meter dance form that appeared in symphonic third movements of the Classical period along with a trio.

ANSWER: **minuet** [accept **minuet** and trio; accept “The **Celebrated Minuet**”; accept **Minuet** in G; accept **menuet**]

<Classical Music>

6. Metal complexes in which the metal acts as one of these things have fac and mer or lambda and delta configurations depending on the denticity of the ligands. The relative prevalence of products that contain these things is explained by Cram’s rule. The Le Bel–van’t Hoff rule uses the number of these things to express the number of possible isomers. The CIP rules assign each of these things a letter: R or S. Molecules that include these things along with an internal plane of symmetry are meso compounds. These things are exemplified by tetrahedral carbon atoms with different substituents. Pyramidal inversion centering on one of these things results in racemization of enantiomers. For 10 points, name these points in a molecule where interchanging substituents lead to a nonsuperimposable isomer.

ANSWER: **chiral centers** [or **chiral atoms**; or **chirality center**; or **centers** of **chirality**; accept **stereocenters** or **stereogenic centers**; accept **asymmetric carbons** or **chiral carbons**]

<Chemistry>

7. This modern-day country canceled UNESCO’s recognition of 1930s-era Art Deco buildings like Bar Zilli in its capital, where a monument honors shida sandals. This country’s president created the National Security Office secret police and instituted a “diaspora tax.” In 2008, this country invaded Ras Doumeira. This country’s south contains the border town of Badme, which was occupied in a conflict that ended after a 2018 coffee ceremony. After this country’s two civil wars, Hamid Idris Awate’s ELF was pushed into Sudan by Petros Solomon’s Marxist EPLF, which, in 1990, captured Massawa. This country is called the “North Korea of Africa” for its one-party control by the PFDJ under President Isaias Afwerki. For 10 points, in 1991, what majority-Tigrinya country on the Red Sea won its 30-year independence war with Ethiopia?

ANSWER: **Eritrea** [or State of **Eritrea** or Hagere **Ertra** or Dawlat **Iritriya**; accept **Eritrean** War of Independence; accept **Eritrean** Civil Wars; accept **Eritrean** People’s Liberation Front; accept **Eritrean** Liberation Front; prompt on **Eritrean–Ethiopian** War]

<World History>

8. A poem in this collection describes King August the Strong crushing a tin plate and wonders about “lovers” “on some unsayable carpet.” This collection describes figures with dolls operating a puppet-theater and trampling the “market of solace” in Grief-City. A poem in this collection claims that “even if one were to suddenly take me to its heart, I would vanish into its stronger existence.” A poem in this collection was inspired by a Picasso painting of acrobats. The first poem in this collection references Gaspara Stampa after stating that “beauty is nothing but the beginning of terror.” This collection, which was inspired by a stay at a castle near Trieste, begins “Who, if I cried out, would hear me among the angelic orders?” For 10 points, name this collection of ten poems by Rainer Maria Rilke (“RILL-kuh”).

ANSWER: **Duino Elegies** [or **Duineser Elegien**]

<European Literature>

9. This artist hated Alcoholics Anonymous’s usage of his comic of a prisoner in a long cell saying, “Now, here’s my plan,” to describe courage. This artist was nicknamed the “Wandering Beard” for his series of travel comics for *Playboy* magazine. With his best friend, David Mamet, this artist cowrote the play *Oh, Hell!* and the screenplay for *Things Change*. This artist described a place beyond where the “asphalt flowers grow” and where “the chalk-white arrows go” in a collection whose cover depicts a dog holding onto a cliff. This artist’s notoriously creepy headshot appears on the back of a book cover whose front depicts a green tree dropping an apple into a boy’s hands. For 10 points, name this artist who wrote the collection *Where the Sidewalk Ends* and *The Giving Tree*.

ANSWER: Shel **Silverstein** [or Sheldon **Silverstein**; accept **Uncle Shelby**]

<Other Academic>

10. This thinker dissed Pierre Bayle’s (“bail’s”) *Dictionary* article on Hieronymus Rorarius by stating that those who admit that the soul is a simple substance should also affirm multiplicity. According to this thinker, a spinning person experiencing “a great multitude of little perceptions” provides evidence for events that can stun the consciousness into a deathlike state. This philosopher borrowed Aristotle’s term “entelechies” (“en-TELL-uh-keez”) to describe entities with an inner self-directed nature. An argument presented by this thinker imagines being able to enlarge a thinking machine enough to walk around inside it like a mill. This thinker was the first to formulate the principle of sufficient reason. For 10 points, name this German philosopher who discussed windowless, indivisible particles in his essay *The Monadology*.

ANSWER: Gottfried **Leibniz** [or Gottfried Wilhelm von **Leibniz**]

<Philosophy>

11. In a story by this author, a “gloomy son of a bitch” lawyer who hates his nickname of “Tifty” remarks to the competitive backgammon player Chaddy that a house will soon fall into the sea; that story by this author ends after the narrator hits his pessimistic brother Lawrence Pommeroy with a root at their Laud’s Head summer home. Another story by this author ends after a man sees constellations and smells an “autumnal fragrance” as he finds his home abandoned. A Chopin prelude is interrupted by a couple arguing in a story by this author that depicts Irene Westcott using the title device to listen in on her neighbors. This alcoholic author wrote a story in which Neddy Merrill traverses backyard pools. For 10 points, what author wrote the stories “The Enormous Radio” and “The Swimmer”?

ANSWER: John **Cheever** [or John William **Cheever**] (The first sentence is from “Goodbye, My Brother.”)

<American Literature>

12. This architect is compared to Howard Roark in an essay that cites Budd Schulberg's idea of "Star Quality." A giant yellow four appears at the top of a fire station designed by this architect in Columbus, Indiana. This architect's partner wrote the essay "Room at the Top? Sexism and the Star System in Architecture," which describes how this architect was given credit for coining the term "duck building." This architect's partner on the Sainsbury Wing of London's National Gallery refused to attend his 1991 Pritzker Prize ceremony since he was given sole awardship on projects like the Seattle Art Museum. Steven Izenour, Denise Scott Brown, and this creator of the Vanna House wrote the book *Learning from Las Vegas*. For 10 points, name this Postmodern architect who said, "Less is a bore."
ANSWER: Robert **Venturi** [or Robert Charles **Venturi** Jr.; accept **Venturi**, Scott Brown, and Associates]
<Other Fine Arts>

13. To general astonishment during one of these events, Gaius Fabius Dorsuo brazenly completed an annual sacrifice. During one of these events, a young soldier floated down a river on a cork raft to convince the Senate to recall a commander from exile. A commander's efforts to end one of these events led Plutarch and Livy to bestow the title of a "second Romulus" on that commander, Marcus Furius Camillus; a participant in that one of these events legendarily used a heavier-than-normal measurement to weigh a gold ransom, retorting, "Vae victis!" to complaints. One of these events that followed the Battle of the Allia was supposedly thwarted by a gaggle of noisy geese in the Temple of Juno. For 10 points, a 390 BCE example of what type of event capped Brennus's Gallic invasion of the Italian peninsula?
ANSWER: **sack** of **Rome** [accept **sack** of **Rome** by the Gauls or Brennus's **sack** of **Rome** or 390 BCE **sack** of **Rome**; accept "siege" in place of "sack"; prompt on **sack** or **siege**]
<Other History>

14. These plants name spalacid rodents, related to blind mole rats, that transmit the mold that causes talaromycosis. They're not orchids, but these plants have culms that grow horizontally in creeping monopodial species, unlike clumping pachymorph species. Every 48 years, these plants attract plagues of black rats called "Mautâm" to their mass flowering in Mizoram. Lemurs of the genus *Hapalemur* eat mostly these plants and must detoxify their cyanogenic taxiphyllin. These plants are gripped by the thumb-like sesamoid bone of both *Ailuropoda melanoleuca* and a smaller carnivoran that resembles a red raccoon. Foresters grow these plants to substitute for rattan and to rapidly store CO₂ ("C-O-2"), since their dense rhizomes make them the fastest-growing plants. For 10 points, what evergreen grasses supply most of the diet of pandas?
ANSWER: **bamboo** [or **Bambusoideae**; accept **Bambusa** or **Melocanna**; accept specific types, like giant **bamboo**; accept **bamboo** shoots; accept **bamboo** forests; accept **bamboo** lemurs; accept **bamboo** rats; accept "**bamboo** death"; prompt on **Poaceae** or **grasses**]
<Biology>

15. Saba Mahmood argued that this trait's contradictory political "regulatory impulse" and "promise of freedom" lead to the precarity of minorities in nation-states. José Casanova rejected the sub-thesis that this trait entails "privatization." This trait increases up the y-axis on the Inglehart-Welzel cultural map of the world and forms a "belt" in the American Northwest. Unlike Talal Asad's book on the "formations" of this trait, Charles Taylor's book on its "age" and Peter L. Berger's *The Sacred Canopy* advance the Weberian thesis that it increases with modernity. A rising demographic called the "nones" reflects this societal trait, which is codified in France by laïcité ("lai-EE-see-TAY"). For 10 points, Unitarian Universalists embrace "humanism" rooted in what trait promoted by disestablishment and the Freedom from Religion Foundation?
ANSWER: **secularism** [or **secularization**; accept **non-religious** or **irreligious** or **atheism** or similar; accept **separation** of **church** and **state** or equivalents; accept **secular** humanism; accept *A **Secular** Age*; accept *Formations of the **Secular***; accept **laïcisme** or **laïcité** before read; accept **Unchurched** Belt; prompt on **rationalism**; prompt on **unaffiliated**; prompt on **disenchantment** or **Entzauberung**; reject "sectarianism"]
<Social Science>

16. The Calán/Tololo (“cah-LAHN toh-LOH-loh”) Survey supported the conclusion that these objects’ absolute magnitude is correlated with the parameter “delta m-sub-15 B,” as demonstrated by Mark M. Phillips. These objects reach a peak absolute magnitude of negative 19.3 in 20 days and then decline by three magnitudes in one month. These objects’ spectra contain a silicon II (“two”) line at 6,150 angstroms and do not contain hydrogen lines. Adam Riess (“reese”) won part of the 2011 Nobel Prize in Physics for proving that the expansion of the universe is accelerating by using these standard candles. These objects form when a star reaches its Chandrasekhar (“chun-druh-SAY-kur”) limit and cannot withstand gravitational forces. For 10 points, what supernovae form when white dwarfs explode?

ANSWER: **type Ia** (“one A”) **supernovae** [or **type Ia** after “supernovae”; prompt on white dwarf supernovae before “white”; prompt on supernovae; prompt on type I supernovae]

<Other Science>

17. A thousand-foot-deep lake named for these objects is described in Lǐ Bái’s poem “A Gift to Wāng Lún.” A fisherman finds a utopia named for these objects in a 5th-century fable by Táo Yuānmíng. A character in *Journey to the West* shrinks to hide inside one of these objects during a banquet held by the goddess Xī Wángmǔ (“shee wong-moo”). In a location named for these objects, a group sacrifices a black ox, a white horse, and wine and burns incense; that group promises to “die the same day” in a location named for these objects at Zhāng (“jong”) Fēi’s house and includes Guān Yǔ and Liú Bèi (“l’yo bay”). After being Keeper of Horses, Sun Wukong guards a garden of these objects, which he eats to gain immortality. For 10 points, the protagonists of *Romance of the Three Kingdoms* swear an oath in a garden of what fruit?

ANSWER: **peaches** [or **táozi**; accept peach **blossoms**; accept **Peach Blossom Paradise**; accept “The **Peach Blossom Spring**”; accept **Peaches** of Immortality; accept Oath of the **Peach** Garden or **Táoyuán Sān Jiéyì**; prompt on flowers; prompt on trees]

<World Literature>

18. *Description acceptable.* Many human-animal hybrids with this unusual property were sculpted with fiber-reinforced plastic by Masao Kinoshita. A collection of artworks with this unusual property contains “Nilgai, Doe of the Indies” and “Man with a Mandible.” Over 700 works with this unusual property were created by Honoré Fragonard, cousin of the Rococo artist, including “Horseman of the Apocalypse.” Figures with this property are known as *écorchés* and are used by artists to practice their understanding of anatomy. Titian (“TISH-un”) painted Apollo inflicting this property on an upside-down Marsyas (“MAR-see-us”). A figure with this property holds a knife to the lower right of Christ in a large Sistine Chapel fresco. For 10 points, St. Bartholomew holds a self-portrait of Michelangelo after undergoing what painful process in *The Last Judgment*?

ANSWER: being **flayed** [accept descriptions of having the **skin removed**; accept **écorchés** before read; accept descriptions of bodies with **exposed muscles** or **organs** or similar; accept answers indicating you can **see the insides** of the bodies; prompt on skeletons or cadavers or similar; prompt on taxidermy by asking “what unusual quality do the taxidermied figures have?”]

<Painting/Sculpture>

19. A Vito Russo book describes how this policy forced homosexual men into the stereotype of “frivolous, asexual sissies.” This policy lost much of its force after the Supreme Court’s decision in *Joseph Burstyn Inc. v. Wilson*, also known as the *Miracle* decision. Joseph Breen rigidly enforced this policy, which built on an earlier list of “Don’t’s and Be Carefuls.” Scandals that preceded the creation of this policy included the drug-induced death of Olive Thomas and the trial of Fatty Arbuckle for the manslaughter of Virginia Rappe. This policy’s requirement that murderers must always eventually face punishment forced Hitchcock to alter the plot of his 1940 adaptation of *Rebecca*. An MPPDA president names, for 10 points, what Hollywood self-censorship policy?

ANSWER: **Hays** Code [or **Motion Picture Production** Code; accept the **Code**; accept the Hollywood **Code**; prompt on descriptive answers about self-censorship in **Hollywood** or self-censorship in the **movie** industry] (The book in the first clue is *The Celluloid Closet*.)

<American History>

20. Rav Mattana claimed that this man’s death is alluded to by Adam’s eating from the Tree of Knowledge, since in Hebrew, “eaten of” is a homophone of this man’s name. According to the Gemara, the names of this man’s ten sons must be chanted in one breath because they all died at the same time. Since this man is a descendant of Amalek, the attack at Rephidim is recounted prior to the retelling about him. This man’s ears and pockets are symbolically destroyed by eating filled three-cornered cookies. When chanting the Megillah, congregants twirl graggers to drown out the name of this man, who, after Mordecai refused to bow down to him, sought to exterminate the Jews of Shushan. For 10 points, name this villainous vizier (“vih-ZEER”) of Ahasuerus (“uh-HAZ-yoo-EER-us”) whose downfall in the Book of Esther is celebrated on Purim.

ANSWER: **Haman** [or **Haman** the Agagite or **Haman** the Evil; accept Oznei **Haman** or **Haman**’s Ears; prompt on **Hamantaschen**]

<Religion>

Tiebreaker. A 1996 Fifth Circuit case originating in this state effectively reversed the *Bakke* decision by ruling that race could not be a factor in university admissions and was brought by Cheryl Hopwood. A law school in this state attempted to provide separate but equal facilities for Black law students before being sued by Heman Marion Sweatt. A 1954 case from this state brought by Pete Hernandez ruled that the equal protection clause applied to all nationalities. This state’s House Bill 588 mandates that its public universities must admit students in the top ten percent of their high school graduating class, which played a role in a 2013 case brought by plaintiff Abigail Fisher. For 10 points, the grounds of a public university in what state contain the Lyndon B. Johnson presidential library?

ANSWER: **Texas** [or **TX**; accept University of **Texas**; accept **Texas** A&M University; accept *Hernandez v. Texas*; accept *Hopwood v. Texas*; accept *Fisher v. University of Texas*]

<American History>

BONUSES

1. Years after writing a poem insulting the “laughing cockroaches on [this man’s] top lip” and the “ten thick worms his fingers,” a poet wrote a complimentary “Ode to” this man. For 10 points each:

[10e] Name this world leader, who wrote Georgian poetry under the name Soselo. Osip Mandelstam was exiled from the Soviet Union for an “Epigram” describing how this man “rolls the executions on his tongue like berries.”

ANSWER: Joseph **Stalin** [or Joseph Vissarionovich **Stalin**; or Ioseb Besarionis dze **Jughashvili**; or Iosif Vissarionovich **Dzhugashvili** (“zhoo-GASH-vee-lee”)]

[10m] This poem by Anna Akhmatova describes sufferings during Stalinist purges. This poem’s “Crucifixion” section, based on the arrest of Akhmatova’s son, describes how “the Mother stood, still, and alone.”

ANSWER: **Requiem** [or **Rekviem**]

[10h] In a poem by a non-Russian author, Stalin is implicitly compared to this creature, who is told “we’ve got Shakespeare there [...] we play solitaire and violin.” In that poem, this creature is called a “semi-moonman” and is told “turn back, think again!”

ANSWER: **yeti** [accept “Calling out to **Yeti**” or “Wołanie do **Yeti**”; prompt on **Abominable Snowman**] (The poem is “Notes from a Nonexistent Himalayan Expedition” by Wisława Szymborska.)

<European Literature>

2. A 2018 Los Alamos report simulating the exchange of 100 of these events between India and Pakistan found that significant global cooling would be unlikely due to the fast turnover time of black carbon. For 10 points each:

[10e] Name these extraordinarily exothermic events that were first carried out at the Trinity Site.

ANSWER: thermon**uclear detonations** [accept **nuclear explosions**; accept the use of **nuclear weapons** or **nuclear warheads** or **nukes** or **nuclear bombs**; accept **nuclear tests**; accept **atomic bomb** or **hydrogen bomb** in place of “nuclear”] (The Los Alamos report is called “Climate Impact of a Regional Nuclear Weapons Exchange: An Improved Assessment Based on Detailed Source Calculations.”)

[10h] The report compares the climate impacts of nuclear detonations to the black carbon released by fires and volcanic eruptions, which inspired this method of solar radiation management. This method with a three-word name would use a high-altitude aerostat to release sulfates or titanium dioxide and increase Earth’s albedo.

ANSWER: **stratospheric aerosol injection** [prompt on **SAI**]

[10m] The report estimated climate impact with time series of this quantity in near-surface air and at the sea surface. This quantity is plotted on the y-axis of the hockey stick graph.

ANSWER: **temperature** [accept sea surface **temperature**; accept mean **temperature** anomaly; prompt on **SST**; prompt on **T**]

<Other Science>

3. The complex staging of an opera titled for some of these people requires the frequent banging of chairs on the stage floor as percussion and uses three film projectors for visuals. For 10 points each:

[10m] Name these people who title a highly atonal opera by Bernd Alois Zimmermann. In a different atonal, German-language opera, a man with this job drowns after trying to retrieve a knife he tosses in a pond.

ANSWER: **soldiers** [accept *Die Soldaten*; accept **military** personnel; accept members of the **army**]

[10e] The soldier Wozzeck (“VOT-seck”) titles an opera by this composer, who was a member of the Second Viennese School along with Arnold Schoenberg (“SHERN-berg”) and Anton Webern (“VAY-burn”). This composer also wrote *Lulu*.

ANSWER: Alban **Berg** (“ALL-bahn BAIRG”) [or Alban Maria Johannes **Berg**]

[10h] Zimmermann’s *The Soldiers* is considered the most important German opera between Berg’s *Lulu* and this later cycle of operas themed around the days of the week. Three-note leitmotifs (“LIGHT-moh-TEEFS”) on specific instruments represent characters like Eve, Lucifer, and the archangel Michael in this series.

ANSWER: **Licht** [or **Light**] (by Karlheinz Stockhausen)

<Other Fine Arts>

4. The 13th-century poet Gyandev used snakes to represent the vices that oppose moksha on one of these things, which the Buddha avoided, according to a list of examples like ashtāpada. For 10 points each:

[10h] Identify these things whose traditional Indian varieties include chowka bhara, pallanguzhi, chaupar, and moksha patam. At a courtyard in Fatehpur Sikri, Akbar enjoyed a giant example of these things that names a modern brand.

ANSWER: board **games** [accept game **boards** or **game** pieces or similar; accept **Pachisi** Courtyard; accept specific board games like **Parcheesi**] (Moksha patam and gyan chauper were early forms of Chutes and Ladders.)

[10e] The brahmin Sissa mythically invented chaturanga, the precursor of this board game and its variants, like sittuyin and shogi. Elephant pieces used in this game’s Chinese version xiàngqí (“shyang-chee”) evolved into European bishops.

ANSWER: **chess** [accept Japanese **chess** or Chinese **chess** or elephant **chess** or Burmese **chess**; prompt on game of **generals** or similar]

[10m] The *Baburnama* discusses Babur’s passion for both chess and this athletic pastime, which developed from Persian tzykanion. The princely state of Jodhpur names outfits for this game, which was popularized in Manipur.

ANSWER: **polo** [or **chaugan**; or **sagol kangjei**; prompt on **horseback riding** or similar; prompt on field **hockey**] (Manipuri ponies were traditionally ridden by polo players.)

<World History>

5. Answer the following about journeys to the underworld in African mythology discussed in Clyde Ford’s *The Hero with an African Face*, for 10 points each.

[10e] Amokye allows the Ashanti hero Kwasi Benefo to cross one of these features and enter the underworld.

Amokye fulfills a similar role to that of Charon (“CARE-un”), who ferries souls across one of these features in Greek mythology.

ANSWER: **rivers** [accept the **River** Styx]

[10h] The Duala culture hero Jeki la Njambe journeys to the underworld to rescue his sister after she is kidnapped by one of these animals. The cryptid Koolakamba is a hybrid of two types of these animals.

ANSWER: **apes** [accept great **apes**; accept **chimpanzees**; accept **gorillas**; prompt on **monkeys**]

[10m] Uncama follows a millet-devouring porcupine to the underworld in a story of these people, whose chief god Unkulunkulu (“unk-oo-lunk-oo-loo”) was born in the marsh of Uhlanga. A Thomas Mofolo novel fictionalizes a historical leader of these people.

ANSWER: **Zulu** [or ama**Zulu**; prompt on **Nguni**; prompt on **Bantu**] (The Mofolo novel is *Chaka*.)

<Mythology>

6. These people used “watercourts” to trap and store living fish in their capital at Mound Key in Estero Bay. For 10 points each:

[10h] Name these people who vied for control over land with the nearby Tequesta. These people, who lived in the modern Everglades region prior to Spanish arrival, controlled the Ten Thousand Islands.

ANSWER: **Calusa**

[10m] These objects were used to make the Calusa’s watercourts as well as midden mounds that can be seen at Mound Key. One of these objects appears on the flag of a micronation in Key West that “seceded” in 1982.

ANSWER: **seashells** [accept oyster **shells**; accept **shell** middens; accept conch **shells**; prompt on **conch**; prompt on **oysters**; prompt on **Conch Republic**]

[10e] Long after the Calusa, these people moved deeper into the Everglades region after their three wars against the American government. Osceola led these people, who were forced to sign the Treaty of Payne’s Landing.

ANSWER: **Seminoles** [or Yat’ **siminoli**]

<American History>

7. In a novel, Zulema, the wife of a character with this condition, has an affair with her husband’s cousin Kamal. For 10 points each:

[10h] Name this condition that afflicts the Agua Santa shopkeeper Riad Halabi in Isabel Allende’s novel *Eva Luna*. Riad pulls out a handkerchief to cover up this condition of his when people come close to him.

ANSWER: **cleft lip** [or **cleft palate** or **harelip**]

[10m] In a novel by a different author, this character with a cleft lip works as a gardener in Cape Town before embarking on a journey to Prince Albert to bring his mother’s ashes to her birthplace.

ANSWER: **Michael K** [accept *Life and Times of Michael K*; prompt on **Michael**] (The novel is by J. M. Coetzee.)

[10e] Early in this novel, Amir’s father pays for a plastic surgeon to fix Hassan’s cleft lip as a birthday present. This Khaled Hosseini novel is titled for a role that Hassan plays after Amir wins a local tournament.

ANSWER: *The Kite Runner*

<World Literature>

8. Andreas Bäumlér’s group found that this genus performs thiosulphate, nitrate, and aerobic respiration in the mouse gut, where it induces colitis that depletes butyrate-producing *Clostridia*. For 10 points each:

[10m] Name this hydrogen sulfide–positive Enterobacteriaceae (“en-teer-oh-BACK-ter-ay-see-ay”) genus with over 2,000 serovars. The Ames test of mutagenicity uses strains of this gastrointestinal pathogen related to *Citrobacter* and *E. coli*.

ANSWER: **Salmonella** [accept **Salmonella enterica**; accept **Salmonella** Typhi or **Salmonella** Paratyphi or **Salmonella** Typhimurium; accept **Salmonella enteritidis**]

[10h] Virulent *Salmonella* Typhimurium express catecholase types of these compounds, like salmochelin and enterobactin. Lipocalin-2 competes with these high-affinity bacterial chelating agents to sequester a limiting nutrient.

ANSWER: **siderophores** (“sih-DAIR-oh-fores”) [accept catecholase **siderophores** or hydroxamate **siderophores**]

[10e] Bacteria like *Salmonella* use siderophores (“sih-DAIR-oh-fores”) to take up this metal, which is oxidized by the chemolithotroph *Acidithiobacillus* (“acid-i-thio-bacillus”) in a biogeochemical (“bio-geo-chemical”) cycle. Animal myoglobin is rich in the bioavailable heme form of this metal.

ANSWER: **iron** [or **Fe**; accept **iron** cycle; accept **iron(III)** or ferric **iron**; accept **iron(II)** or ferrous **iron**; accept heme **iron**] (*Acidithiobacillus* expresses receptors to steal siderophores produced by other bacteria.)

<Biology>

9. Niklas Luhmann argued that second-order observers install this concept, which defines modern society after the end of tradition and the end of nature, according to Ulrich Beck and Anthony Giddens. For 10 points each:

[10m] Name this concept that is known and quantifiable, in contrast to Frank Knight's "Knightian uncertainty." A principal-agent problem illustrates how competing incentives and information asymmetry can augment this concept.

ANSWER: **risk** [accept financial **risk**; accept **risk** society; prompt on hazards or moral hazard; prompt on danger; prompt on Risk, Uncertainty, and Profit]

[10h] In asset pricing, a risk-neutral probability measure and risk-free return can represent the general pricing rule instead of one of these measures of state prices called the stochastic discount factor. These national account measures include the "implicit" PCE used by the Fed.

ANSWER: **deflators** [accept GDP **deflator** or implicit price **deflator** or **deflator** series; accept state-price **deflator**; accept PCE **deflator** or implicit price **deflator** for personal consumption; prompt on price index]

[10e] Guvenen et al. used deflators to find that profit shifting to these places hid IT value-added. The Panama Papers exposed these foreign financial centers, like Seychelles ("say-SHELLS"), Luxembourg, Sāmoa, Bermuda, and the Marshall and Cayman Islands.

ANSWER: **offshore** financial centers [accept **tax havens**; accept **offshoring**] (They also used the Törnqvist index as an alternative when they considered deflators inappropriate for the data.)

<Social Science>

10. Joseph Henry Sharp depicted three members of these peoples standing in front of a blue window. For 10 points each:

[10h] Identify these people whose native potters included Maria Montoya Martinez, who, along with her husband, Julian, created a distinct "blackware" style.

ANSWER: **Pueblo** people [or **Pueblo** tribe; or **Puebloans**; accept Ancestral **Puebloans** or **Anasazi**; prompt on Native Americans or American Indians; accept specific pueblos, like **Tewa** or **Tompiro** or **Acoma** or **Cochiti** or **Zuni**; accept, but DO NOT OTHERWISE REVEAL, **Taos**]

[10m] Artists like Joseph Henry Sharp painted the Pueblo with a "society of artists" named for this town. The Pueblo of this New Mexico town inspired artists like D. H. Lawrence and Ansel Adams to found an art colony here.

ANSWER: **Taos**, New Mexico [accept **Taos** Pueblo; accept **Taos** art colony or **Taos** Society of Artists]

[10e] This artist stayed with the Lawrences in Taos before purchasing her Ghost Ranch, where she completed many paintings of flowers and cow skulls.

ANSWER: Georgia **O'Keeffe** [or Georgia Totto **O'Keeffe**]

<Painting/Sculpture>

11. This person spent most of his life as a priest at a temple in Dakshineswar, where he received a seminal vision of a goddess reaching for a sword. For 10 points each:

[10h] Name this 19th-century mystic who summed up his thought on the sanctity of all life with his adage "jiva is Shiva." A follower of this man founded a "mission" named for him that promotes Vedanta philosophy.

ANSWER: **Ramakrishna** [or **Ramkrishna**; or Sri **Ramakrishna** Paramahansa or Sri Ramkrishna **Paramahansa**; or Gadadhar **Chattopadhyaya**; accept **Ramakrishna** Mission]

[10m] Ramakrishna's follower Swami Vivekananda initially rejected "idol-worship" but eventually prayed to and became a devotee of this goddess at the request of Ramakrishna. This aspect of Devi and goddess of time and change is equated with Brahman in her "Maha" form.

ANSWER: **Kālī** [accept Dakshina **Kālikā**; accept **Mahakali**; accept Samhara **Kālī**]

[10e] Vivekananda eclectically adapted the Rāja form of this practice for Western audiences. In the West, this practice usually involves some mixture of stretching, breathing, and mindfulness.

ANSWER: **yoga** [accept hatha **yoga**; accept Rāja **yoga**]

<Religion>

12. A female figure and a monkey gift a goddess these flowers, which also dot the background, in the frescos from the Xeste 3 building on the Cycladic site of Akrotiri. For 10 points each:

[10h] Name these flowers, a motif in the art of Cycladic and Minoan cultures. A field of these flowers was the site of a Third Sacred War battle often assumed to be the bloodiest in Greek history.

ANSWER: **crocuses** [or **krókos**; accept **saffron**; accept Battle of **Crocus** Field]

[10m] The Cycladic culture carved sculptures such as the “fat lady of Saliagos” out of this material. The island of Paros was renowned for a translucent variety of this material, whose Carrara variety was used extensively in Roman sculpture.

ANSWER: **marble** [accept Parian **marble**; accept Carrara **marble** or Luna **marble**; prompt on **stone**]

[10e] From the Cycladic Keros-Sylos Group, archaeologists have unearthed mysterious clay examples of these objects, including one engraved with a ship. At the Roman city of Cumae, researchers discovered early examples of this type of cookware that were nonstick.

ANSWER: **pans** [accept frying **pans**; accept **woks**]

<Other History>

13. Since this force is always perpendicular to velocity, it does no work on moving charges. For 10 points each:

[10e] Name this force whose direction is given by the right-hand rule. It acts only on moving charges.

ANSWER: **magnetic** force [prompt on **Lorentz** force by asking “what component of the Lorentz force?”]

[10m] One of these shapes is traced out by an electron moving at an arbitrary velocity with no nonzero component in a uniform magnetic field because only the velocity components parallel to the field are affected.

ANSWER: **helix** [or **spiral**; or **helical** motion]

[10h] Student laboratory studies of motion in uniform magnetic fields often use these rather simple devices. These devices are made of identical loops of wire with current flowing in the same direction placed along a common axis such that the distance between loops is equal to the radii of the loops.

ANSWER: **Helmholtz coils**

<Physics>

14. A character says that “the times ain’t ripe” for one of these events because of “the man in the White House.” For 10 points each:

[10h] Identify these events whose repercussions are discussed by a man from Philadelphia named Tom Clayton. At the end of a play, Agate asks, “Well, what’s the answer?” to which everyone on stage replies by repeating a word for one of these events.

ANSWER: a labor **strike** [accept any answer about a **strike** in a specific industry; prompt on **work stoppage**; prompt on **labor shortage**; prompt on **withholding labor** or similar answers] (All the clues are from the play *Waiting for Lefty* by Clifford Odets.)

[10m] An employer-initiated lockout at a textile mill in Reading (“RED-ing”), Pennsylvania, is central to this author’s 2015 play *Sweat*. This author’s play about women in the DRC, *Ruined*, won the 2009 Pulitzer Prize for Drama.

ANSWER: Lynn **Nottage**

[10e] Workers fear that their illegal taxi station will be demolished by the city in this author’s play *Jitney*. Troy Maxson becomes the first Black garbage truck driver in Pittsburgh in this author’s play *Fences*.

ANSWER: August **Wilson**

<American Literature>

15. This composer's Second Symphony was inspired by the story of the prodigal son, while his Fourth is titled "The Legend of the Skerries." For 10 points each:

[10h] Name this first Swedish composer to have international success after Franz Berwald. This contemporary of Wilhelm Stenhammar reflected on the landscapes of his home country in his three Swedish Rhapsodies.

ANSWER: Hugo **Alfvén** ("all-VAIN") [or Hugo Emil **Alfvén**]

[10m] The form of Alfvén's ("all-VAIN's") *Uppsala* Rhapsody was inspired by this orchestral piece by Johannes Brahms, written along with his *Tragic Overture*. This piece features a contrapuntal treatment of the song "Gaudeamus igitur."

ANSWER: ***Academic Festival Overture***, op. 80 [accept ***Akademische Festouvertüre***]

[10e] Alfvén drew from Scandinavian folk songs in his pieces, just like this Romantic composer did in his *Lyric Pieces*. This Norwegian also composed "In the Hall of the Mountain King."

ANSWER: Edvard **Grieg** [or Edvard Hagerup **Grieg**]

<Classical Music>

16. Douglas Smith questions the validity of the accepted version of this event told in Felix Yusupov's memoirs since it mirrors a scene from Dostoevsky's *The Landlady*. For 10 points each:

[10m] Name this event that was supposedly covered up by a plan to shoot a family dog and drag its body across an existing trail of blood. The victim of this event legendarily tried to claw his way out of the frozen Neva River.

ANSWER: **assassination** of Grigori **Rasputin** [or **assassination** of Grigori Yefimovich **Rasputin**; accept **death** or **murder** or similar in place of "assassination"]

[10e] The assassination of Rasputin preceded the death of Tsar Nicholas II and his family, ending the reign of this Russian dynasty that had remained in power since the Time of Troubles.

ANSWER: **Romanov** dynasty [or House of **Romanov** or House of **Romanoff**]

[10h] A distraught Prince Alexei asked his father to punish Rasputin's murderers, just as Dmitry Bogrov was hanged in 1911 for assassinating this politician during a performance of a Rimsky-Korsakov opera in Kiev.

ANSWER: Pyotr **Stolypin** ("stuh-LEE-pin") [or Pyotr Arkadyevich **Stolypin**]

<European History>

17. Jeremy Bentham extended utilitarian ethics to these beings by asking, "The question is not, Can they reason?, nor Can they talk? but, Can they suffer?" For 10 points each:

[10e] Name these beings whose "liberation" is called for by some utilitarians, who claim that the experimentation on and the consumption of them leads to unnecessary suffering.

ANSWER: nonhuman **animals**

[10m] While utilitarian treatment of the moral value of animals generally applies only to non-wild examples, this environmental ethicist extended moral worth to wild animals and nonliving ecological features like water and terrain in his book *A Sand County Almanac*.

ANSWER: Aldo **Leopold**

[10h] This philosopher called Leopold's communitarian approach to ecosystems "environmental fascism." This philosopher wrote that animals have deontological moral status as "subjects-of-a-life" in his 1983 book *The Case for Animal Rights*.

ANSWER: Tom **Regan**

<Philosophy>

18. With J. D. Bernal, this scientist recorded X-ray data from pepsin, the first such X-ray study of a protein. For 10 points each:

[10m] Name this British Nobel laureate who also used X-ray crystallography to elucidate the 3D structures of cholesterol and vitamin B₁₂.

ANSWER: Dorothy **Hodgkin** [or Dorothy **Crowfoot**; or Dorothy Mary Crowfoot **Hodgkin**]

[10h] Hodgkin's pioneering work on the structure of cholesterol used this family of methods to solve the X-ray phase problem, using a derivative of cholesterol with extra atoms of iodine. Similar approaches use added mercury ions or uranyl salts.

ANSWER: **heavy atom** methods [accept multiple **isomorphous replacement** or single **isomorphous replacement** or **MIR** or **SIR**; prompt on **anomalous scattering** or **AS**; prompt on **anomalous diffraction** or **AD**]

[10e] Hodgkin and colleagues also determined the structure of this drug, including its then controversial beta lactam ring. Alexander Fleming discovered this antibiotic in a blob of mold.

ANSWER: **penicillin**

<Chemistry>

19. *Description acceptable.* A character exclaims, "Am I not an Englishman, where are my privileges?" while he is dragged away, likely to meet *this* fate. For 10 points each:

[10h] Name or describe this fate, which another character risks his life to escape under the pseudonym Provis. On a boat, that character later fights his enemy Compeyson ("COM-pee-son"), who had avoided this fate due to his connections.

ANSWER: **transportation** [accept descriptions that indicate being **deported to Australia** or **sent to Australia**; prompt on being **deported** by asking "to where?"; prompt on being **imprisoned** or **arrested** or **convicted** or **sentenced** or **found guilty** or equivalents by asking "what was their specific punishment?"]

[10m] This character is probably transported, likely to Australia, as punishment for stealing a silver snuff box. This character, a child who wears adult's clothes, frames a boy for pickpocketing Mr. Brownlow's handkerchief.

ANSWER: the **Artful Dodger** [or **Jack** Dawkins; or Jack **Dawkins**]

[10e] This author created the Artful Dodger as well as the convict Abel Magwitch, who grows wealthy by farming sheep in Australia in *Great Expectations*.

ANSWER: Charles **Dickens** [or Charles John Huffam **Dickens**]

<British Literature>

20. Answering the following about bushmeat harvesting in Central Africa, for 10 points each.

[10e] Poachers harvest meat from bonobos, pangolins, and crocodiles along this river for food. This river separates the capitals Brazzaville and Kinshasa and names their countries.

ANSWER: **Congo** River [accept **Congo** basin; accept Republic of the **Congo** or **Congo-Brazzaville**; accept Democratic Republic of the **Congo** or **Congo-Kinshasa**]

[10m] The bushmeat trade and illegal mining have endangered this ungulate native to the Ituri Forest in the Democratic Republic of the Congo. This giraffe relative has zebra-like stripes on its legs.

ANSWER: **okapi** [or **Okapia johnstoni**; prompt on **forest giraffe** or **Congolese giraffe** or **zebra giraffe**]

[10h] Anti-bushmeat campaigns have caused overfishing in the Lualaba ("loo-ah-LAH-bah") River, where the Wagenya people construct wooden sieves in this waterfall to catch fish. The Lualaba becomes the Congo after this series of seven cataracts, which is the largest waterfall by flow rate in the world and was once named for Henry Stanley.

ANSWER: **Boyoma** Falls [prompt on **Stanley** Falls]

<Geography>

Extra. Distantly related Balkan languages that demonstrate grammatical convergence are sometimes classified as a Balkan area of this kind. For 10 points each:

[10h] Give this German-language term that describes linguistic regions whose languages appear similar due to language contact and geographical proximity but are not closely related.

ANSWER: **Sprachbund** (“shprak-boont”) [prompt on linguistic area or language area or area of linguistic convergence or diffusion area or language crossroads or linguistic crossroads; reject “Sprachraum”]

[10e] The presence of this feature classifies Mon-Khmer and Sino-Tibetan languages in the same Sprachbund. Languages that incorporate this feature, such as Mandarin Chinese, distinguish different words using pitch.

ANSWER: **tones** [accept **tonal** languages]

[10m] The shared presence of retroflex consonants allows Indo-Aryan languages to be classified into the same Sprachbund as this language family. “Mongoose” and “calico” are among the English loanwords from this non-Indo-European language family.

ANSWER: **Dravidian** languages [or **Dravidic** languages; accept anything more specific such as South **Dravidian**; accept **Tamil**-Malayalam or **Tamil** or **Malayalam**; accept Kannada-**Telugu** or **Kannada** or **Telugu**]

<Social Science>