

Edited by: Taylor Harvey, Tracy Mirkin, Jonathen Settle, and Alex Shaw

Written by: Jason Freng, David Gunderman, Paul Hansel, Taylor Harvey, Jacob Hujisa, Bradley Kirksey, Leo Law, Tracy Mirkin, Matt Mitchell, Jacob Murphy, Jonathen Settle, Alex Shaw, Chandler West

TOSSUPS:

1. **Description acceptable. A program of this type known as the Iron Fist Campaign has utilized many so-called “cluster leaders” for surveillance. Between 1906 and 1975, a massive campaign of this type was undertaken in Sweden, targeting people who fell outside of the societal norms of the *folkhemmet*, or “people’s home.” Leilani Muir is one victim of an Alberta program of this type that was originally justified with the phrase (*) “Democracy was never intended for degenerates.” During “The Emergency,” policies enacted by Indira and Sanjay Gandhi resulted in over 4 million women being forced to undergo this process via tubal ligations. For 10 points, the case of *Buck v. Bell* upheld the legality of the compulsory form of which practice, whose variants include vasectomies?**

ANSWER: forced **sterilization** [accept word forms; accept answers that roughly indicate that people are being forced to **lose their reproductive capacity**; anti-prompt on vasectomies or tubal ligations before mentioned; anti-prompt on castration]

<TM, Other History>

2. **A paper by this thinker introduces a type of phrase as “a man, some man, [or] any man” before stating that phrases like these “have not meaning in isolation.” This thinker’s distaste for natural language is exemplified by his noting that the word ‘is’ can be an existential quantifier, a statement of identity, and a predication. This thinker introduced what he called the “no-class” theory of classes to attempt resolve his namesake (*) paradox. This thinker coined the term “philosophical logic” to describe a process of recasting problematic statements in their logical form, a method he used in introducing his ‘theory of descriptions’ in his paper “On Denoting.” For 10 points, name this British thinker who collaborated with Alfred Whitehead on *Principia Mathematica*.**

ANSWER: Bertrand **Russell**

<TH, Philosophy>

3. **If all the joint displacements of a structure are known, then it has a “determinacy” described by this adjective. This adjective describes a type of viscosity that represents a fluid’s ability to transport momentum, and that type of viscosity described by this adjective is equal to the dynamic viscosity divided by density. A set of four equations described by this adjective includes one that sets the final (*) velocity equal to the initial velocity plus the product of acceleration and time. That set of equations described by this adjective is commonly used to analyze projectile trajectories in introductory physics courses. For 10 points, gives this adjective that describes a set of equations used to represent the motion of objects.**

ANSWER: **kinematics** [accept **kinematic** determinacy; accept **kinematic** constraints; accept **kinematic** viscosity; accept **kinematic** equations; do not accept “kinetics”]

<LL, Physics>

4. Don Richardson's *Peace Child* is a memoir about acting as this sort of person. After studying at Ahmadiyya seminaries, students either become interpreters of fiqh or serve in this role. The three Maryknoll organizations oversee this activity for the Roman Catholic Church. Individuals who work in this role in Islam practice *dawah*. This type of person names a 1995 Christopher Hitchens book that criticizes the work and philosophy of (*) Mother Teresa. John Allen Chau died while acting as this sort of person in the Andaman Islands. Members of the LDS Church often serve in this role after graduating high school for 18 months for women and 2 years for men. For 10 points, give this role of those who are sent to an area to spread a faith through aid and proselytization.

ANSWER: missionary [accept *The Missionary Position*; accept missionary or missions work; prompt on preaching; prompt on proselytizing or word forms until mentioned]

<TH, Religion>

5. Lithium 6 and 7 are separated by applying an alloy of lithium and this element to aqueous lithium hydroxide in the COLEX (“coh-lex”) process. The acetate of this element is reacted with alkenes (“al-keens”) in water and then reduced by sodium borohydride to form alcohols. Silver-based electrodes have replaced electrodes made of this metal and its chloride as reference electrodes. (*) Calomel electrodes are made of this metal that is bonded to a thiol group in a compound used as a preservative in some vaccines. Dental fillings use silver or gold alloys of this metal called amalgams (“eh-MALL-gums”). For 10 points, name this toxic metal, a red liquid at room temperature which is used in thermometers.

ANSWER: mercury [accept Hg]

<TH, Chemistry>

6. In one poem, this thing is personified to have “a voice of gladness and a smile / and an elegance of beauty.” The second line of Walter Savage Landor’s “Dying Speech to an Old Philosopher” notes that “[*this thing*] I loved, and, next to [*this thing*], art.” An Alexander Pope couplet states *this thing* and *this thing*’s laws were hid in night, until “God said ‘Let Newton Be,’ and all was Light.” The first line of (*) “Thanatopsis” mentions one who loves this thing and “holds / Communion with her visible forms.” This entity is described as “red in tooth and claw” in the poem “In Memoriam A.H.H.” Much Romantic poetry reflects on, for 10 points, what entity often personified as a “mother.”

ANSWER: nature [accept the natural world; prompt on the environment or similar answers by asking the specific word mentioned in the poems]

<TH, Poetry>

7. The use of the drug diclofenac in livestock has led to a massive drop in the population of the nine species of the *Gyps* genus native to this country, in an ongoing event known as this country’s “vulture crisis.” This country’s group of “Big Four” snakes includes the common krait and the saw-scaled viper. The greater one-horned (*) rhinoceros is found exclusively in the jungles of this country and is sometimes named for it. The goat-like Nilgiri tahr and the lion-tailed macaque are native to this nation’s Ghat Mountains, and several species of birds are endemic to this country’s Nicobar Islands. For 10 points, name this South Asian Nation whose namesake species of elephant is smaller than the African elephant.

ANSWER: Republic of India

<TH, Geography>

8. **Photographer David Butcher was commissioned in 2017 to take a series landscape photographs of the rocky coastlines of Cap de Creus that inspired this painter. This artist's villa at Port Lligat ("poor LEE-gah") included sculptures of an egg balance on a rooftop and a cyprus growing from a boat. A Florida museum dedicated to this artist's works houses several of his large canvases like *The* (*) *Ecumenical Council* and *The Discovery of America by Christopher Columbus*. The atomic bomb inspired this artist's late in life shift to the style of "nuclear mysticism," though he is better known for a style exemplified by works like *The Great Masturbator* and *Swans Reflecting Elephants*. For 10 points, name this Spanish surrealist who painted melting clocks in *The Persistence of Memory*.**

ANSWER: Salvador Dalí

<TH, Painting>

9. **In a play by this author, Birdie feigns a headache to appease her abusive husband Oscar Hubbard, though she is actually drunk from elderberry wine. In one of this author's plays, Mary twists Lily's outburst into an accusation of an affair between teachers Karen Wright and Martha Dobie. In another of her plays, a woman withholds lifesaving medication from her husband while he dies of a heart attack after he claims he will not (*) prosecute her brothers for stealing \$88,000 worth of bonds. In that play by this author, Regina blackmails her brothers for a 75% share in a cotton mill. For 10 points, name this author of *The Children's Hour* and *The Little Foxes*.**

ANSWER: Lillian Hellman

<JF, Drama>

10. **During an event in this city that was held in a building named the "Wigwam", a crowd's noise was described as "all the hogs ever slaughtered in Cincinnati giving their death squeal together" by Murat Halstead. During a different event held in this city, demonstrators originated the phrase "the whole world is watching," which they chanted while being beaten by police. Before that event in this city, the Youth International Party nominated the (*) fat hog Pigasus for president. In reference to that event held in this city, Walter Cronkite stated "I think we've got a bunch of *thugs* here," following Dan Rather's accosting by security guards. For 10 points, Abraham Lincoln's 1860 nomination for president, as well as the 1968 DNC, took place in which Midwestern city?**

ANSWER: Chicago, Illinois

<TH, American History>

11. **An elephant at the Oklahoma City Zoo named Tusko died after Chester M. Pierce exposed him to this substance. This substance was used by Dr. Humphrey Osmond to treat alcoholics. Michael Pollan documented his experiences using this synthetic substance in the book *How to Change Your Mind*. Shortly after sampling this substance in Basel, Albert (*) Hoffman traveled home in an event later celebrated as Bicycle Day. The school bus *Further* was used by The Merry Pranksters and Ken Kesey on a road trip fueled by this substance. Thomas Wolfe chronicled Ken Kesey's escapades with this substance in *The Electric Kool-Aid Acid Test*. For 10 points, name this hallucinogenic drug that was administered in Project MKUltra.**

ANSWER: LSD [accept acid before "electric," prompt thereafter; accept lysergic acid diethylamide; prompt on hallucinogens or hallucinogenic drugs; prompt on drugs]

<JH, Other Academic>

12. **Hartmann masks or Scheiner disks can be used to make adjustments to these devices. Users of these devices try to avoid a power per inch greater than 50. A device of this kind named for Bernard Schmidt provides limited coma and is a cata-dioptric example of them. A magnitude limit for a type of these devices is equal to a normalization constant plus 5 times the log of the (*) aperture. A parabolic primary with a central hole and a small hyperboloid secondary eliminate spherical aberration in one type of these devices. Cassegrain and Newton name “reflecting” examples of these devices. For 10 points, name these astronomical instruments that use mirrors or lenses to magnify images.**

ANSWER: optical **telescopes** [accept refracting or reflecting **telescopes**; do not accept “radio telescopes”]

<TH, Other Science Astronomy>

13. **This figure’s accountant Johnny Inkslinger saved him tons of money on ink every year by literally refusing to cross T’s and dot I’s. This figure began salting his bullets to preserve high-flying birds he shot. This figure and his companion the Big Swede turned a circular river into a racetrack by dumping (*) sawdust onto it. This figure had two companions who worked full time to trim his beard and another who constantly shoveled tobacco into his bucket-sized pipe. Many of the tales about this figure come from an advertising booklet published by the Red River Lumber Company. For 10 points name this gigantic man from lumberjack folklore who created the Great Lakes as watering holes for his companion, Babe the Blue Ox.**

ANSWER: Paul **Bunyan**

<JH, Mythology>

14. **A paper by Michael Katz and Carl Shapiro discusses the relationship between competition, compatibility, and the “network” type of these economic entities. According to a paper titled “The Problem of Social Cost,” certain types of these entities can be addressed with strict property laws. Coase’s Theorem describes how trade can occur in the presence of these concepts given sufficiently low transaction costs. (*) Pigouvian taxes can be issued to offset these things. A person who increases the property values of their neighbor’s house by keeping their lawn well-maintained exemplifies a “positive” one of these entities. Pollution is an example of the “negative” type of, for 10 points, what economic action that has unintended consequences to other parties?**

ANSWER: **externalities** [or **externality**; accept network **externality** or positive **externality** or negative **externality**; accept **spillover**; prompt on market **failure**]

<AS, Economics>

15. **During this decade, Josef Koudelka took a photograph of a watch-wearing arm in the foreground while the background shows an abandoned city street during an invasion. Lennart Nilsson published his photo essay “Drama of Life Before Birth” during this decade, which showed the first color photos of a fetus in development. In the first year of this decade, Alexander Korda took the widely reproduced (*) *Guerrillero Heroico* portrait. Malcolm Browne photographed the Buddhist monk Thich Quang Duc self-immolating in this decade, which also produced the chilling Saigon Execution photo. For 10 points, name this decade during which the *Earthrise* photograph was taken from *Apollo 8*.**

ANSWER: **1960s**

<TH, Photography>

16. A song written by this author repeatedly mentions “thou of evil luck” and opens with the entreatie “if they answer not to thy call, walk alone.” In a novel by this writer, Bimala steals money from her husband Nikhil and feels such remorse afterwards that she tries to pawn off her jewelry to get it back. This author of *The Home and the World* also wrote about the dying child Amal, who expects a visit from the king, in his play *The (*) Post Office*. In a poetry collection, this man wrote of a place “where the mind is without fear and the head is held high” as well as a poem that tells the addressee “thou hast made me endless, such is thy pleasure.” Those poems were included in a series of “Song Offerings.” For 10 points, name this first non-European to win the Literature Nobel, a Bengali poet who wrote *Gitanjali*.

ANSWER: Rabindranath Tagore

<JF, Mixed Lit>

17. In 1990, a leader of this modern-day country was charged with corruption after taking a bribe involving the purchase of three jets from British Aerospace. Muslim settlers in this country often clashed with the Shanti Bahini, a militant group active in this country’s eastern Hill Tracts region. After a series of mid-70s coups, this nation was ruled by the nationalist Zia Rahman, who had earlier fought in an independence war against a country to the (*) west. This nation’s first post-independence leader, Sheikh Mujib (“sheek mu-ZHEEB”), was the father of its current Prime Minister, Sheikh Hasina, who leads the Awami League. Operation Searchlight saw many Urdu-speaking Biharis killed in cities such as Chittagong, in, for 10 points, which country once known as East Pakistan?

ANSWER: The People’s Republic of Bangladesh [prompt on East Pakistan until mentioned]

<TH, World History>

18. Glypiation localizes proteins to this structure by cleaving their C-terminal peptide and attaching a G·P·I anchor. Banana-shaped B·A·R domains cooperate with dynamins to mediate the fission of this structure. Phos·pha·tidyl·serines are transported between this structure’s inner leaflet and outer leaflet to enhance the rate of thrombosis. Pits coated with (*) clathrin are pinched off from this structure in receptor-mediated endocytosis. Cholesterol increases the fluidity of this structure’s phospholipid (“foss-foh-lip-id”) bilayer. For 10 points, name this structure that separates cells from their environment.

ANSWER: cell membrane [accept membrane after “cells”, prompt before; accept plasma membrane; do not accept or prompt on other similar answers like “mitochondria membrane” or “ER membrane”]

<JS, Biology>

19. Eugene Izotov, Albrecht Mayer, and Alex Klein are contemporary players of this instrument. Benjamin Britten wrote *Temporal Variations* for piano and this instrument and his *Six Metamorphoses After Ovid* is a solo piece for it. This instrument plays a “mini-cadenza” just before the coda in the first movement of Beethoven’s Fifth Symphony. Giuseppe Ferlendis was the original dedicatee of Mozart’s concerto in C major for this instrument. The heckelphone and one of *these* (*) d’amore are lower-pitched instruments in this instrument’s family. Orchestras typically tune to an A played by this instrument. The bassoon and the English horn have lower pitches than, for 10 points, what double reeded woodwind instrument?

ANSWER: oboe [accept oboe d’amore]

<JH, Music>

20. This actor plays the murdered rock singer Johnny Squares in *The Dead Pool*, the final film in the *Dirty Harry* series. This actor hits a replica of his own head with a hockey puck after finding out about Pickles on Ice in a show in which he plays the beloved children’s show presenter Jeff Piccirillo (“pick-ah-RILL-oh”). This actor who stars in (*) *Kidding* first gained recognition by portraying Fire Marshall Bill on the show *In Living Color*. This actor won a Golden Globe for his portrayal of Andy Kaufman in *Man on the Moon* and plays Joel, who has memories of his relationship with Clementine erased, in *Eternal Sunshine of the Spotless Mind*. For 10 points name this actor who plays the title character in *The Truman Show* and stars in *Ace Ventura: Pet Detective*.

ANSWER: Jim Carrey

<JH, Pop Culture Mixed>

21. A leader of a literary group based in this country was nicknamed the “Pope of Literature.” Another author in that group from this country, Group 47, wrote a novel in which a housekeeper’s life is ruined by a tabloid reporter because of her romantic involvement with a bank robber. This home country of the author of *The Lost* (*) *Honor of Katharina Blum* was also home to an author who wrote a novel about a boy who joins a gang called the Dusters, can shatter glass with his voice, and refuses to grow old. The *Danzig Trilogy* was written by an author from, for 10 points, what country home to Marcel Reich and Heinrich Böll, which was also the home of the author of *The Tin Drum*, Günther Grass?

ANSWER: Germany [or Deutschland]

<AS, Long Fiction>

22. Gary Witherspoon’s book on the language of this group notes how their word *shima* can mean both “biological mother” but also anything that sustains life. This group’s traditional dried mud dwellings are known as *hogan*. Clara Sherman and Hosteen Klah are prominent artist who practice this group’s traditional weaving. The “squash blossom” design can be seen in these people’s silverwork, which often uses inlaid (*) turquoise. Witches that can disguise themselves as animals are referred to as “skinwalkers” within this culture. Many moral tales told by members of this tribe include the trickster figure Coyote. For 10 points, name this Native American nation that inhabits the Four Corners region of the Southwest.

ANSWER: Navajo Nation [accept Navajo Tribe or Navajo people or culture; prompt on Native Americans or Amerindians or American Indians]

<TH, Anthropology>

23. **The Esquilache (“ESS-key-LA-chay”) Riots occurred when an advisor to a king of this house set limitations on the size of hats and capes men could wear, resulting the expulsion of all Jesuits from a certain country and the redistribution of church land. A castrato singer named Farinelli was a favorite at the court of a monarch from this house. Due to the chronic depression of a king from this house, the chief Minister Marquis de la Ensenada ruled in his stead. A popular uprising in (*) 1808 ousted Manuel de Godoy, a prominent advisor to a ruler of this house. The kings Philip V and Charles III belonged to this royal house, which ruled Spain for the entirety of the 18th century. For 10 points, name this royal house that controlled Spain after the Hapsburg and France under Louis XVI.**

ANSWER: House of **Bourbon**

<TH, European History>

24. **In this non-Middle Eastern country, a PKK sympathizer stabbed Turkish student Furkan Kocamen to death in a cafe. It’s not Canada, but an executive of the Chinese telecom company Huawei was arrested in this country in January 2019 on espionage charges in the same month the liberal mayor of this country’s sixth largest city was murdered by a (*) knife-wielding attacker at a charity event. A leader of this country’s Civil Platform has served as the President of the European Council since 2014; that man is Donald Tusk. The first invocation of the EU Treaty’s Article 7 was used against this country in 2017 after its Law and Justice party gutted its courts and civil service. For 10 points, name this Eastern European country where white supremacist marches have taken place in Warsaw.**

ANSWER: Republic of **Poland**

<TH, Current Events>

BONUSES:

1. Answer some questions about the 18th century German author Rudolf Raspe (“RAS-puh”), for 10 points each:

[10] Raspe is best known for writing a collection of stories about the “surprising adventures” of this baron, who tells a series of tall tales about traveling across Europe and fighting battles in Russia.

ANSWER: Baron **Munchausen** [or Hieronymus Karl Friedrich von **Münchhausen**]

[10] Baron Munchausen is often compared to this other 18th century literary character who travels to Lilliput and Laputa. His “travels” are depicted in a Jonathan Swift novel.

ANSWER: **Gulliver** [accept **Gulliver’s Travels**]

[10] The popularity of the Munchausen stories was increased by Gustave Doré performing this task for them. Mervyn Peake and John Tenniel have performed this task for Lewis Carroll’s books.

ANSWER: **illustration** [accept answer indicating images were **illustrated** for the books; accept synonyms such as **drawing**]

<TH, Long Fiction>

2. The Casparian strip blocks this pathway and forces water and solutes through the cytoplasm of the endodermis, allowing plants to control the uptake of ions. For 10 points each:

[10] Name this non-living pathway in which water flows from cell wall to cell wall, not entering the cytoplasm.

ANSWER: **apoplastic** pathway [accept **apoplastic** flow; accept **apoplastic** transport; accept **apoplast** or **apoplasm**]

[10] Water and solutes flow through the apo-plast to this tissue in the root. Mature cells are dead in this tissue that passively transports water through its constituent tracheids and vessel members.

ANSWER: **xylem**

[10] Evaporation of water via stomata on the underside of these structures provides the force for the transpirational pull of water up xylem. In autumn, these structures change colors from green to orange and fall off of trees.

ANSWER: **leaf** [or **leaves**]

<JS, Biology>

3. This poet described a series of everyday items like “A Box” and “Mildred’s Umbrella” in sections of her poem “Objects,” part of a collection that also included poems about “Food” and “Rooms.” For 10 points each:

[10] Name this author who wrote a series of collage-like nonsense poems in *Tender Buttons*. She described partying in Paris with a group of cubist artists in a supposed autobiography of her lover.

ANSWER: Gertrude **Stein**

[10] Stein’s most quoted line of poetry, from her poem “Sacred Emily,” is a repetitive statement about one of these flowers. A poem by Robert Burns compares his “Luvie” to a “red, red” one of these flowers “newly sprung in June.”

ANSWER: **rose** [accept a rose is a rose is a rose is a **rose**; accept a red red **rose**]

[10] Another repetitive line by Stein appearing in her poem “Susie Asado” mentions this thing after five consecutive uses of the word “sweet.” In a Basho haiku, a monk enjoys some of this drink on a quiet morning as “the chrysanthemum is flowering.”

ANSWER: **tea** [accept Sweet sweet sweet sweet sweet **tea**]

<TH, Poetry>

4. This prophet names sura 71 of the Quran, which states that he acted as a prophet for 950 years. For 10 points each:

[10] Name this early Islamic prophet who was tasked with teaching mankind to abandoned idolatry. When mankind did not heed his call, he was ordered to build an ark to survive the Deluge sent by Allah.

ANSWER: **Noah** [or **Nuh** ibn Lmach ibn Methuselah]

[10] The Quran reports that both Noah's wife and his son Yam perished in the flood because they were this type of person, the Arabic term for unbelievers.

ANSWER: **kafirs**

[10] The lineage of Islamic prophets lists this man as the next prophet after Noah. One of his actions involving his faith in Allah is celebrated on Eid al-Adha.

ANSWER: **Ibrahim** [or **Abraham**]

<TH, Religion>

5. Charles Hires introduced the mixture that would become this beverage at the 1876 Philadelphia Centennial Exhibition. For 10 points each:

[10] Name this soft drink whose popular brands today includes Mugs, A&W, and Barq's.

ANSWER: **root beer** [accept **root tea** if the player is from the 1870s]

[10] The bark of this plant is used as the main flavor for root beers. In 1960, the FDA banned the use of the oil of this plant in root beer because it is a carcinogen. Today, the oil is removed or artificial flavors are used instead.

ANSWER: **sassafras** [accept **Sassafras albidum** or **Smilax ornata**; accept **sarsaparilla**]

[10] A Chicago-based root beer brand named for one of these people was the first company to use the six-pack format to distribute their drinks. A different "hard" root beer brand is named for being not the root beer enjoyed by one of these people.

ANSWER: **dad** [accept **father**; accept **Dad's**; accept Not Your **Father's** Root Beer]

<TH, Pop Culture Other>

6. This character's rival, the master thief Flambeau, is persuaded to give up his life of crime and help solve mysteries in the story "The Flying Stars." For 10 points each:

[10] Name this Catholic priest and amateur detective that appears in 53 short stories, beginning with "The Blue Cross." He encounters a bunch of robots in a non-H.G. Wells story called "The Invisible Man."

ANSWER: Father **Brown**

[10] Father Brown is a creation of this deeply Catholic British writer of *The Napoleon of Notting Hill* and *The Man Who Was Thursday*.

ANSWER: G(ilbert) K(eith) **Chesterton**

[10] The intuitive methods of crime solving employed by Father Brown are often contrasted with the deductive reasoning used by this detective who is assisted by Dr. Watson in stories by Arthur Conan Doyle.

ANSWER: **Sherlock Holmes** [accept either underlined part]

<TH, Short Fiction>

7. One theory about the origin of this popular expression centers on a shipbuilder from Massachusetts name James. For 10 points each:

[10] Name this phrase, commonly seen in graffiti along with a bald-headed man with a huge nose peeking over a wall. A permanent version of the figure accompanying this phrase appears on the National World War II Memorial in Washington D.C.

ANSWER: “**Kilroy** was here”

[10] In his novel *V*, Thomas Pynchon proposed that the Kilroy graffiti was actually a drawing of a RLC circuit used to make the band-stop variety of one of these devices, which in general remove unwanted features from a signal.

ANSWER: **filters** [accept band-stop **filter**]

[10] The theory that the shipwright Jame Kilroy was the origin of the phrase was first introduced by articles written in this newspaper. This paper claims to present “All the news that’s fit to print.”

ANSWER: *The **New York Times*** [prompt on **NYT**]

<LL, Other Academic>

8. This branch of philosophy asserts that our interpretation of the world is shaped by language, tradition, and history. For 10 points each:

[10] Name this branch of philosophy concerned with interpreting written or verbal communication and establishing rules for interpretation. In *Truth and Method*, Hans-Georg Gadamer identifies the central activity of this branch of philosophy as a “fusion of horizons.”

ANSWER: philosophical **hermeneutics**

[10] The hermeneutic insistence on the interpretive nature of knowledge often unfairly leads it to be labeled as a form of this position, which states that truth and morality are not absolute, but depend on societal and historical context.

ANSWER: **relativism** [accept cultural **relativism**; accept moral **relativism**; accept **relativity**; accept **relative**]

[10] A main tenant of hermeneutics states that the meaning of a text is meant be taken in this way, rather than examining the individual details of it in isolation. A commonly used idiom states that *this* is more than the sum of its parts.

ANSWER: the **whole** [accept **holism** or a **holistic** approach]

<TH, Philosophy>

9. This country's namesake Portuguese-based creole is the oldest still-spoken creole. For 10 points each:

[10] Name this island nation of the west coast of Africa. This country’s Ilha de Santiago is home to half its population as well as its capita,l Praia (pra-YA).

ANSWER: **Cape Verde** [or **Cabo Verde**]

[10] Mesa Verde national park in this U.S. state is home to the Cliff Palace of the Ancestral Pueblo people. Other landmarks in this mountainous state include Sand Dunes National Park and Pike’s Peak.

ANSWER: **Colorado**

[10] The 18,500 year old archaeological site of Monte Verde is located in this nation. Archaeologists are also interested in the ancient cave paintings of this nation’s Alacalufe people, many of whom live on the Brunswick Peninsula.

ANSWER: **Chile**

<TH, Geography>

10. When analyzing acid-base equilibria, K_a is the equilibrium constant for a reaction of this type. For 10 points each:

[10] Name this reaction in which a molecule breaks apart into its constituent atoms or ions.

ANSWER: **dissociation** [accept acid **dissociation**; accept **decomposition**]

[10] The Henderson-Hasselbalch equation sets this quantity equal to pK_a plus the log of the ratio of ion concentration to acid concentration. Acids typically have a value of less than 7 for this quantity.

ANSWER: **pH** [accept **power of hydrogen**; accept **potential hydrogen**]

[10] Two answers required. For the dissociation of hydrofluoric acid, K_a is a function of the concentrations of (*read slowly*) hydronium, hydrofluoric acid, and fluoride. Give the two species whose concentrations are in the (*emphasize*) numerator of the expression for K_a .

ANSWER: **hydronium** and **fluoride** [accept in any order; do not accept “fluorine” for “fluoride”]

<JS, Chemistry>

11. The sixth caliph of this dynasty, al-Walid I, constructed a massive mosque over a Roman temple-turned-cathedral after this dynasty’s conquest of Damascus, which became their capital in 661 AD. For 10 points each:

[10] Name this early caliphate that succeeded the Rashidun. This caliphate fell apart after losing a decisive battle to the Abbasids at the Battle of Zab River.

ANSWER: **Umayyad** Caliphate [accept **Omayyad** Caliphate]

[10] Even after the fall of the Umayyad Caliphate as a whole, an “Emirate” and a “Caliphate” named for this city lived on in areas throughout the Iberian Peninsula, where they feuded with Christian forces during the *Reconquista*. On the order of Abd al-Rahman I, this city became home to a massive “Mosque-Cathedral” known as the *Mezquita*.

ANSWER: **Córdoba** (“KOR-doh-bah”) [accept Emirate of **Córdoba**; accept Caliphate of **Córdoba**]

[10] Following the disintegration of the Córdoba Caliphate came the rise of these small Muslim-ruled states, whose name translates as “factions.” The most powerful of these states was centered on the modern city of Seville, then ruled by the Abbadid family.

ANSWER: **taifa** [prompt on emirates]

<JS, World History>

12. Odd angles and unlikely poses characterizes paintings in this style like Pellegrino Tibaldi’s *Adoration of the Shepherds*. For 10 points each:

[10] Name this style of painting that reacted to High Renaissance perfection by emphasizing distorted forms and elongated figures. Pontormo, Parmigianino, and Tintoretto all practiced this style of painting, which bridged Renaissance and Baroque styles.

ANSWER: **Mannerism** [accept **Mannerist**]

[10] This High Renaissance master turned to a mannerist style in his later work, such as his *The Last Judgement*, located in the Sistine Chapel where he had earlier painted the ceiling.

ANSWER: **Michelangelo** [Michelangelo di Lodovico **Buonarroti** Simoni]

[10] This Flemish-Italian artist is considered a preeminent sculptor of the mannerist style. He often depicted violent scenes like a three-figure *Rape of the Sabine Women* and *Samson Slaying a Philistine*, and he took his most common name from the Italian city where he made the *Fountain of Neptune*.

ANSWER: **Giambologna** [or **Jean** de Boulogne]

<TH, Painting + Sculpture>

13. This form of secondary articulation occurs in English when pronouncing the first “n” in the word “minion.” For 10 points each:

[10] Name this process in which the middle of the tongue presses against the roof of the mouth when articulating a consonant.

ANSWER: **palatalization** [accept consonant **palletizing**]

[10] All consonants in this language can be palletized or unpalletized. This is the most widely spoken of the Slavic languages.

ANSWER: **Russian** language [accept **Rússkiy** yazýk]

[10] The way in which consonants are palatalized is studied in this branch of linguistics, which studies the articulation of sounds of human speech. It should not be confused with the study of what sound patterns are allowed in a language, which is called phonology.

ANSWER: **phonetics**

<TH, Linguistics>

14. Name some Miles Davis albums, for 10 points each:

[10] This album is considered the progenitor of the jazz-rock genre and includes tracks like “Miles Runs the Voodoo Down” and the 20 minute long “Pharaoh's Dance.”

ANSWER: ***Bitches Brew***

[10] Davis recorded this album with saxophonist Gerry Mulligan who is featured on the tracks “Jeru” and “Venus de Milo.” This album popularized a genre of jazz characterized by relaxed tempos and light tone.

ANSWER: ***Birth of the Cool***

[10] This 1959 Davis album, often considered Davis’s best, is the best-selling jazz album of all time. Tracks on this album include “Freddie Freeloader” and “So What.”

ANSWER: ***Kind of Blue***

<JH, Jazz>

15. For 10 points each, answer some questions about atomic transitions that come up on the physics G·R·E:

[10] One of these rules for transitions says that no transition between quantum states will occur unless the change of m is 0 or plus or minus 1, and the change of l is plus or minus 1. These rules identify transitions for which there is zero probability.

ANSWER: **selection rules**

[10] The Rydberg formula gives the energy absorbed or released by electronic transitions in this element. This simplest element is a well-studied quantum system because it has just one proton and one electron.

ANSWER: **hydrogen** [accept **H**]

[10] An incoming photon at a certain frequency forces an excited electron to transition to a lower energy state in the stimulated form of this process. In the gain medium of lasers, the rate of this process exceeds the rate of absorption.

ANSWER: stimulated **emission**

<LL, Physics>

16. In 2009, this state's former governor Pat Quinn signed the controversial Video Gaming Act, leading to this state surpassing Nevada for the highest number of video gambling machines. For 10 points each:

[10] Name this US state where Democratic businessman J.B. Pritzker defeated incumbent Republican Bruce Rauner in the 2018 gubernatorial election.

ANSWER: **Illinois**

[10] In May of 2018 the Supreme Court effectively ended a federal ban on this type of gambling after deciding in favor of New Jersey. As a result, nineteen states have begun drafting legislation to legalize this general type of gambling.

ANSWER: **sports** betting [accept descriptive answers mentioning gambling involving **sports**]

[10] The aforementioned case, *Murphy v. NCAA*, overturned the Professional and Amateur Sports Protection Act of 1992, which is commonly named for this former NBA player and New Jersey senator, an outspoken critic of sports betting.

ANSWER: Bill **Bradley** [accept William Warren **Bradley**]

<TH, Current Events>

17. The N·T·U and L·M·T·D methods for analyzing these systems are equivalent, but the N·T·U method results in a simpler solution when the outlet temperature is unknown. For 10 points each:

[10] Name these devices whose shell-and-tube type is widely used because of its large surface area and versatility. The air coils in an HVAC system are an example of these systems.

ANSWER **heat exchangers** [or **H·X**]

[10] In contrast to parallel flow heat exchangers, heat exchangers with this mechanism can have a cold fluid outlet temperature exceeding that of the hot fluid. Biological heat exchangers often use this mechanism in which warm arterial blood heats cool venous blood flowing in the opposite direction.

ANSWER: **countercurrent** exchange [or **counter** flow; do not accept "crosscurrent"]

[10] Assuming steady-state conditions of an adiabatic heat exchanger, the first law of thermodynamics reduces to a balance of this thermodynamic potential. This quantity symbolized H is defined as internal energy plus p·V.

ANSWER: **enthalpy**

<JS, Other Science Engineering>

18. A religious movement named after these structures has its teachings encoded in strings of *wampum* beads and was founded after Handsome Lake decided to preach the "good message," or *Gaiiwio* ("guy-WEE-oh"), to the world. For 10 points each:

[10] Name these residential structures that were commonly used to house many families simultaneously in societies found throughout the northeastern United States, such as those of the Oneida, Onondaga, and Mohawk peoples.

ANSWER: **longhouses**

[10] The Oneida, Onondaga, and Mohawk tribes joined the Seneca, Cayuga, and Tuscarora in allying to form this "Confederacy" of Native Americans that assisted the British throughout the American Revolutionary War.

ANSWER: **Iroquois** ("ee-roh-kwah") Confederacy [accept **Haudenosaunee**; accept **Iroquois** League; accept **Five Nations**; accept **Six Nations**]

[10] A significant part of Iroquois history was the perpetration of these conflicts with the French over the fur trade throughout the Great Lakes region. Historians have argued that these conflicts served as a natural extension of the "mourning wars," whose purpose was to take captives in order to replace the Iroquois who died during other events.

ANSWER: **Beaver** Wars [prompt on **French** and **Iroquois** Wars]

<JH, American History>

19. This member of *Les Apaches* (“lez AH-pash”) wrote solo piano works like *Gaspard de la nuit* (“gas-PAR day luh NEW-ee”) and *Jeux d’eau* (“JUH do”). For 10 points each:

[10] Name this composer who wrote a repetitive melody traded off by different instruments over a snare drum ostinato in his *Bolero*.

ANSWER: Maurice **Ravel**

[10] Ravel wrote a suite of “Noble and Sentimental” examples of these works. Johann Strauss Jr. wrote one of these pieces named for the Blue Danube.

ANSWER: **waltz** [accept **valse**]

[10] Ravel dedicated a piano suite named for these objects to the other members of *Les Apaches*. A minimalist piece by Arvo Pärt for piano and violin is titled for one of these objects inside another one.

ANSWER: **mirror** [accept **spiegel** or **miroir**]

<JH, Music>

20. Possibly due to the construction of a large religious building from adobe and exterior bundles of palm wood, one ancient site on this river’s delta experienced a precipitous population decline around 900 A.D.. For 10 points each:

[10] Name this river that once sustained the city of Djenné-Djenno (“JEN-ay JEN-oh”). Along with trade routes of gold and salt, this river supported the existence of multiple other bustling cities, such as Gao and Timbuktu.

ANSWER: **Niger** River

[10] Many artifacts depicting crouched humans in various positions were created out of this material by artisans in Djenné-Djenno. The earlier Nok culture of Nigeria is known for producing numerous sculptures out of this material.

ANSWER: **terracotta** [prompt on “baked earth”; prompt on ceramic; prompt on earthenware, pottery, or other similar answers]

[10] Many early West African societies, such as Djenné-Djenno and Tonomba, have been made into UNESCO World Heritage sites, as they attest to the existence of advanced African societies prior to empires dominated by this religion, such as the mosque-building Songhai.

ANSWER: **Islam**

<JS, Ancient History>

21. The creation of this deity is often credited to Numa Pompilius. For 10 points each:

[10] Name this two-headed Roman god of beginnings and endings.

ANSWER: **Janus**

[10] Janus once created a hot spring to stop one of these invaders. According to legend, Romulus captured the women from this group of people to ensure population growth for Rome.

ANSWER: **Sabines** [accept Rape of the **Sabine** Women]

[10] Numa Pompilius is also credited with creating an altar to the Elicius form of this Roman deity. The Elicius version of this deity would send rains while the Summanus version was a sender of “nocturnal thunder.”

ANSWER: **Jupiter**

<JH, Mythology>

22. This thinker posited that adult neuroses emerge from childhood conflicts in the three general categories of moving towards people, moving against people, and moving away from people. For 10 points each:

[10] Name this psychoanalyst who wrote *Our Inner Conflicts: A Constructive Theory of Neurosis*. This non-Maslow thinker divided human needs into categories of expansion, compliance, and detachment.

ANSWER: Karen **Horney** (“Horn-Eye”)

[10] Horney is credited with founding a branch of psychology described by this word, which examines social structures involving gender. The “third-wave” of thinkers associated with this term includes bell hooks and Catherine McKinnon.

ANSWER: **feminist** psychology [accept **feminism**]

[10] To counter Freud’s theory of penis envy, Karen Horney theorized that men are envious of this feature of the female anatomy because without one they are unable to give birth.

ANSWER: the **womb** [accept **womb** envy]

<TH, Psychology>

23. This play’s extensive stage directions list out books by specific authors that should be present in the living room where the main action takes place. For 10 points each:

[10] Name this play whose other props include a bottle of whiskey and an old wedding dress worn by Mary as she comes downstairs in a morphine-induced fever dream during which she talks about practicing piano as a girl.

ANSWER: ***Long Day’s Journey Into Night***

[10] *Long Day’s Journey Into Night* is an autobiographical play by this author who also wrote *Mourning Becomes Electra* and *The Iceman Cometh*.

ANSWER: Eugene **O’Neill**

[10] Mary and Edmund both often comment on the presence of this phenomenon throughout the play, which likely represents the omnipresence of addiction in the life of the Tyrone family. Mary tells Cathleen she loves this thing because “it hides you from the world and the world from you.”

ANSWER: **fog** [prompt on clouds or mist by asking “What is the specific word used in the play?”]

<TH, Drama>

24. The Assyrian monk Alopen was a follower of this leader and brought his ideas to the Tang dynasty as the first known Christian missionary to China. For 10 points each:

[10] Name this fourth century Archbishop of Constantinople who taught that Christ had two distinct natures, human and divine. During the second half of the fifth century, a church named for this man flourished in Syria.

ANSWER: **Nestorius**

[10] Following the condemnation of Nestorianism at the Council of Chalcedon, many of its followers relocated to the Sassanid Empire, which was based in this region. The Parthian and Achaemenid dynasties had previously ruled this region.

ANSWER: **Persia**

[10] A Byzantine emperor with this name and the epithet “the Isaurian” struck a major blow to Nestorianism by closing the School of Edessa. That emperor of this name was in power when the Western Roman Empire fell with the deposition of Romulus Augustus.

ANSWER: **Zeno** the Isaurian

<TH, European History>