

ACF Regionals 2017

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Tossups by Rutgers A (Sam Braunfeld, Joelle Smart, David Song, J.J. Tsai) and Georgia A (Jason Fern, David Galban, Kailyn LaPorte, Bhanodai Pippala)

1. In Schiller's test, vaginal epithelial cells that are rich in this substance are stained brown. Like ethanol and isopropanol, this substance can be added to precipitate out DNA in a midiprep. A kinase named for this substance's synthase complexes with axin and A·P·C in the Wnt ("wint") pathway. Biosynthesis of this substance uses a primer that is anchored to a protein tyrosine residue and a monomer covalently linked to U·D·P. Astrocytes store this substance, which is broken down in the body by a namesake "phosphorylase," sometimes with the help of a debranching enzyme. Insulin activates synthesis of this polymer, which has mostly 1,4 and 1,6 ("one four" and "one six") linkages between its glucose monomers. For 10 points, name this carbohydrate analogue of starch found in the liver and muscles.

ANSWER: glycogen

2. During this period, the enemies of an assassinated ruler placed a bagpipe and minstrel's mask on his body to paint him as a sorcerer. After this period ended, a child known as the "little brigand" was hunted down and executed, and his mother, known as "the witch," was imprisoned. A butcher raised the Second Volunteer Army to retake the capital during this era at the urging of a religious leader named Hermogenes. This period, which began with the death of a feeble-minded ruler known as the "bellringer," included the fighting of the Ingrian War against Sweden and a defeat to Poland–Lithuania at the Battle of Klushino. Pretenders to the throne called False Dmitrys arose during, for 10 points, what turbulent era in Russian history that ended with the accession of Michael Romanov?

ANSWER: Time of Troubles [or Smutnoye Vremya]

3. In a fairy tale from this country, an old man receives a treasure basket at the home of a sparrow he once cared for, but his wife is punished for cutting the sparrow's tongue. In another tale from this country, a demonic goblin-rat is killed when a boy's drawings of cats come to life. Many stories from this country were translated by Lafcadio Hearn. After slaying a mountain-dwelling centipede, a folk hero from this country was rewarded by a dragon king with a bottomless bag of rice. This country's folklore tells of turtle-like demons whose strength depends on the water they carry on their heads. A food god from this country, who uses fox spirits called *kitsune* (kit-soo-nay) as his messengers, is named Inari (ee-nah-ree). For 10 points, what Asian country's folk characters include Princess Kaguya and demons called *kappa*?

ANSWER: Japan [or Nippon-koku; or Nihon-koku]

4. Correspondence between this woman and a male friend was adapted into a play by Sarah Ruhl and published in the collection *Words in Air*. In a poem by this author, the speaker thinks back on his time on an island that had "fifty-two / miserable, small volcanoes" before calling his current location "another island / that doesn't seem like one"; she wrote that Friday died of measles in that poem, "Crusoe in England." In another poem, she wrote that she lost her "mother's watch" and "two cities, lovely ones" before saying, "I miss them, but it wasn't a disaster." This poet described Brazilians sending fire balloons into the sky in a poem dedicated to Robert Lowell. For 10 points, name this poet of "The Armadillo" who wrote that "the art of losing isn't hard to master" in her villanelle "One Art."

ANSWER: Elizabeth Bishop

5. In this symphony's rondo finale, the bassoon quotes the composer's song "In Praise of High Intellect" from an earlier piece. The third movement of this symphony is a scherzo that opens as four horns play in unison, after which one horn breaks off to play a challenging obbligato. Leonard Bernstein conducted an excerpt from this symphony for the funeral of Robert Kennedy. This symphony, whose fourth movement is scored for strings and solo harp, begins with a trumpet solo that leads into a funeral march. Its fourth movement, which is frequently performed separately, is an adagietto thought to be a love song dedicated to the composer's wife, Alma. For 10 points, what Gustav Mahler symphony follows the early symphonies based on *Des Knaben Wunderhorn* (dess K'NAH-ben VOON-der-horn) and precedes the *Tragic* Symphony?

ANSWER: Gustav **Mahler's** Symphony no. **5** [or **Mahler's Fifth** Symphony; accept Symphony no. **5** or **Fifth** Symphony after "Mahler"; prompt on Symphony no. "**5**" or "**Fifth**" Symphony before "Mahler"]

6. This woman, who is described as a "clothed hyena" in one book, remembers her mother's parrot asking "qui est là?" in another text. In the first book in which she appears, a stout redhead is repeatedly blamed for her "curious cachinnations." In a later book, she lives with her aunt Cora after her home in Coulibri (koo-LEE-bree) is destroyed, and she commits date-rape in Granbois (grahn-BWAH) using an obeah (oh-BAY-ah) potion from Christophine. In the earlier book, Mr. Briggs reveals this person's existence during an aborted wedding. The later book explains that this woman was called Antoinette Cosway before being renamed and shuttered in an annex of Thornfield Hall, where she was guarded by Grace Poole. For 10 points, what protagonist of Jean Rhys's (zhahn rees's) *Wide Sargasso Sea* is the "madwoman in the attic" in Charlotte Bronte's *Jane Eyre*?

ANSWER: **Bertha** Antoinetta Mason Rochester [accept **Antoinette** or **Antoinetta** before "Antoinette"; prompt on "**Mason**" or "**Rochester**"; prompt on "**Cosway**" before "Cosway"]

7. Localizing a subset S of a ring gives every element of S this property. For an integral domain R , taking " R cross R " and quotienting out by " $a b$ " is equivalent to " $x y$ " if " a times y equals b times x " gives almost every element this property, producing $\text{Frac } R$. The contraction mapping theorem can be used to prove a local form of this property around a point where the Jacobian is nonzero. The group axioms specify closure, associativity, the existence of an identity, and that every element has this property. For a matrix A and column vectors x and b , A must have this property to solve " $A x$ equals b ." A function has this property if and only if it is bijective. A matrix with a non-zero determinant has this property. For 10 points, if a function f of x equals y , what property requires the existence of a function g such that g of y equals x ?

ANSWER: **invertibility** [or **invertible**; or **non-singular**; accept equivalents such as **having an inverse**]

8. During the papacy of Paul III, the ancient tomb of this Roman's daughter was discovered to contain a well-preserved body and a still-burning lamp. As governor of Cilicia (sih-LIH-shah), this man was proclaimed imperator (im-PEH-rah-tor) by his troops upon routing bandits on Mount Amanus. After this native of Arpinum was beheaded under proscription, Fulvia pierced his tongue with her hairpins. This lifelong correspondent of Titus Pomponius Atticus bested Quintus Hortensius in the Verres trial. This man's *Pro Milone* (mee-LOH-nay) failed to defend his friend from charges of murdering Publius Clodius Pulcher. Catiline's conspiracy to overthrow the Republic was exposed by, for 10 points, what Roman politician whose orations include a set of denunciations of Mark Antony called the *Philippics*?

ANSWER: **Cicero** [or Marcus Tullius **Cicero**; accept **Tullius**]

9. A maître d' in this novel, called "the pirate" or "the commander of the brig," reacts unfavorably when another character, dressed only in his underwear, enters a restaurant and raves about his stolen clothes. A frantic chase that unfolds at a surreal pace in this novel ends with those clothes being lost when a man strips naked to search a river. This novel begins at the Patriarch's Ponds, where a poet known as "Homeless" sees a dark prophecy involving spilled sunflower oil realized when a man's head bounces down a cobbled street. A clown named Korovyov (koh-ROH-vee-ahf) and a cat named Behemoth join in the demonic Professor Woland's rampage in, for 10 points, what novel that interleaves the story of Pontius Pilate with a visit by Satan to Moscow and that was written by Mikhail Bulgakov?

ANSWER: *The* **Master and Margarita** [or **Master i Margarita**]

10. On April 23, lovers in the four provinces of this region celebrate a holiday in which men give women roses in exchange for books. Some of this region's 7.5 million residents claim to inherit a type of commonsense wisdom called *seny*. A cultural institution in this region was founded by a Swiss merchant known in Zürich as Hans Gamper. A Benedictine abbey in a mountainous area of this region is the site of a black Madonna nicknamed "la Moreneta" (mor-ay-NAY-tah). Montserrat Abbey is located in this region, which celebrates St. Jordi's Day and has a yellow-and-red striped flag called the *Senyera*. The largest city in this region hosted the 1992 Summer Olympics and contains Park Güell (gway) and the Sagrada Família. For 10 points, name this autonomous region of Spain whose largest city is Barcelona.

ANSWER: Catalonia [or Catalunya; or Cataluña]

11. This man's birth is revealed to his father by an angel whose name is "beyond understanding." The spirit of the Lord begins to "stir" within this man while he is in Mahaneh Dan, between Zorah and Eshtaol (ESH-tah-ohl). This man receives 30 linen wraps and 30 changes of clothes after he stumps 30 men with the riddle "out of the eater came something to eat, and out of the strong came something sweet," which referred to honey he found in a lion's carcass. This man is forced to grind grain and has his eyes gouged out after he is taken captive in Gaza. This Nazarite dies when he demolishes the pillars at a temple to Dagon (DAY-gon) after slaughtering a thousand Philistines with a donkey's jawbone. For 10 points, name this man from the Book of Judges who loses his superhuman strength after his hair is cut by Delilah.

ANSWER: Samson [or Shimshon]

12. One of these objects contains architectural lines scratched onto its black surface and appears to be viewed by a mannequin in Giorgio de Chirico's (JOHR-joh de KEER-ee-koh's) *The Seer*. These objects are shown upside down in a series of works called *The Alarm Clock*. In a 1935 work, one of these objects is shown to the right of a black ball that sits in an arched doorway opening onto a beach. In a 1955 work, one of these objects demonstrates the geometrical similarities between a conical tower and a street that recedes to a vanishing point in the distance. *Euclidean Walks* and two works titled *The Human Condition* are pieces by Rene Magritte in which these objects are displayed in front of a window. For 10 points, what kind of object at the center of Gustave Courbet's *The Artist's Studio* is found atop an easel?

ANSWER: paintings [or canvases; or artworks; accept easels before "easel"]

13. For i and j from 1 to 3, the flux of the i -th this quantity across the j -th surface is a 3-dimensional rank-2 tensor corresponding to the stress. This variable is switched *to* when taking the Legendre (luh-ZHAHN-druh) transform of a Lagrangian. The derivative of the Lagrangian with respect to a generalized coordinate, q -sub- i , gives this quantity conjugate to q -sub- i , which is conserved if q -sub- i is a cyclic coordinate. Its conservation as a result of translational symmetry is derived from Noether's (NOY-tur's) theorem. This quantity's operator is "minus $i\hbar$ " times the gradient, and its commutator with position is " $i\hbar$," which leads to the uncertainty principle. Impulse is the change in, and force is the time derivative of, for 10 points, what vector quantity defined as the product of a particle's mass and velocity?

ANSWER: linear momentum [or translational momentum; do not accept "angular momentum"]

14. After a William Randolph Hearst paper accused this man of starving children, he challenged Hearst to a debate and debated an empty chair when Hearst did not show. This man unnerved colleagues by employing a Jewish woman named Belle Moskowitz as his campaign manager. In his only election as his party's candidate for president, he courted southerners by naming Arkansas senator Joseph Robinson as his running mate. This opponent of Prohibition was, along with William Gibbs McAdoo, a front-runner who lost out to John W. Davis at the "Klanbake Convention." For 10 points, what Democratic governor of New York was nicknamed "The Happy Warrior," lost the 1928 election to Herbert Hoover, and was the first major-party presidential candidate to be a Roman Catholic?

ANSWER: Al Smith [or Alfred Emanuel Smith]

15. Embracing the *reductio ad absurdum* conclusions that result from this position was coyly dubbed “outsmarting” by J. J. C. Smart, who advocated for an extreme form of this position; Bernard Williams debated Smart in a book titled for this position and subtitled “for and against.” One objection to this position is that anyone trying to adopt it strictly would be frozen into inaction because it allows “no rest.” A challenge to this position that results from the “mere addition paradox” was elucidated in the book *Reasons and Persons* by Derek Parfit. There are “act” and “rule” formulations of this philosophical position, whose founder developed the “felicific calculus.” For 10 points, what ethical position developed by Jeremy Bentham advocates the greatest good for the greatest number?

ANSWER: **utilitarianism** [accept word forms of **utilitarian**; accept act **utilitarianism** or rule **utilitarianism** or **Utilitarianism**: *For and Against*]

16. The inspiration for one song on this album was a walk to a radio station with a man named “June Eight,” during which the composer heard music arranged via the *aksak* system. This album’s commercial success inspired its composer to release a similarly titled sequel, couched as a musical response to a painting by Joan Miró (zhō-AHN mee-ROH), that contains the tracks “It’s a Raggy Waltz” and “Unsquare Dance.” The style of this album was inspired by the *zebeck* music that its composer heard on a State Department–sponsored trip to Turkey. A Joe Morello drum solo introduces a track in 5/4 (five four) time that is found on this album, which also contains the tracks “Strange Meadow Lark” and “Blue Rondo à la Turk.” “Take Five” appears on, for 10 points, what 1959 album by the Dave Brubeck Quartet?

ANSWER: ***Time Out***

17. In a book titled for the “natural” type of these concepts, “group” and “grid” are the two dimensions along which Mary Douglas develops the cultural theory of risk. These abstract concepts partially title a book that includes an essay on the “liminal” period of rites of passage and examines Ndembu (in-DEM-boo) rituals. The adjectival form of this word describes a type of violence exercised by those who use their higher capital to influence those of lower capital, as described by Pierre Bourdieu. Clifford Geertz described religion as a “system of” these concepts, which make up a “forest” in a Victor Turner title. George Herbert Mead established a sociological school named for an “interactionism” based on, for 10 points, what representational entities that, like signs, are studied in semiotics?

ANSWER: **symbols** [accept word forms such as **symbolic** or **symbolism**; accept ***Natural Symbols*** or ***The Forest of Symbols*** or **symbolic** violence or **symbolic** interactionism]

18. A woman in one of this author’s plays gives a monologue beginning “I remember you lying dead” that relates how she almost suffocated her husband with dirt from a flowerpot. This author wrote a play in which Anna admits to borrowing Kate’s underwear and letting Deeley look up her skirt. In another of his plays, Pauline and Hornby try to help Deborah come to terms with her new life after she wakes from a 30-year coma. This playwright of *Old Times* and *A Kind of Alaska* wrote a play in which Mick smashes a statue of the Buddha while arguing with Davies, a tramp whom Aston has invited to stay at their home. For 10 points, what Nobel-winning British playwright of *The Caretaker* created hitmen named Ben and Gus who receive mysterious directives in his *The Dumbwaiter*?

ANSWER: Harold **Pinter**

19. Metallocenes can be synthesized by reacting a cyclo·penta·diene sandwich complex of this element with a metal halide. Four atoms of it condense together two esters to form an acyloin (uh-SILL-uh-win). In a coupling discovered in 1855, adding this element dimerizes (“DIE”-mer-“eyes”-es) alkyl halides. Specific rotations in polarimetry (“polar”-IH-meh-tree) are measured at an emission wavelength for this element, whose boro·hydride reduces ketones but not carboxylic acids. This element is usually the metal in dissolving metal reductions, when it turns an alkyne to a trans-alkene. When dissolved in ammonia, it removes one double bond from benzene in the Birch reduction. In a flame test, this element shows its bright yellow D line. Hard soap saponification uses lye, which is this metal’s hydroxide. For 10 points, name this alkali metal found in table salt.

ANSWER: **sodium** [or **Na**]

20. British ambassador Sir Spenser St. John's (sin-jin's) study of this modern-day country was inspired by an incident, called the Bizoton affair, in which a woman allegedly sacrificed her own niece in a religious rite. A 2012 book about the "aftershocks of history" chronicles this country's recent past. After meeting a general and historian from this country named Alfred Auguste Nemours (neh-"MORE"), another historian wrote a 1938 book claiming that its early history was an extension of the French Revolutionary ethos. C. L. R. James's book *Black Jacobins* is about a revolution that took place in this country, whose post-independence rulers included Henri Christophe (awn-REE kree-STOHF) and Jean-Jacques Dessalines (deh-sah-LEEN). For 10 points, what country declared independence after Toussaint L'Ouverture's (too-SAWNT loh-ver-TOOR's) slave revolt?

ANSWER: Haiti [or Republic of Haiti; or République d'Haïti; or Repiblik Ayiti]

TB. In a declaration proclaiming a five-year plan, this head of state claimed that "a nation's strength ultimately consists in what it can do on its own and not in what it can borrow from others." This leader may have planted dynamite to frame a trade unionist who was later photographed waving his shackled fist. George Fernandes came to prominence opposing this leader during a 1974 railroad strike. This leader ran for office on a slogan that translates in English as "eradicate poverty." This leader instituted forced sterilization policies and suspended civil liberties during a period referred to as "the Emergency." After this leader ordered a raid on the Golden Temple in Amritsar, she was assassinated by her own Sikh bodyguards. For 10 points, name the first and only female prime minister of India.

ANSWER: Indira Gandhi [or Indira Priyadarshini Gandhi]

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1. In Manx folklore, fairies that assume the form of these animals are considered lucky because they cause a silver coin to appear in the pocket of their captors. For 10 points each:

[10] Name these animals. One of them named Twrch Trwyth (*toork trooyth*) carried a comb and razor between its ears and was hunted by Arthur's knights as one of the tasks required of Culhwch (*kull-uck*) before marrying Olwen.

ANSWER: **pigs** [accept **boars**; accept **arkan sonney** or **lucky urchin**; prompt on "**hedgehog**" with the instruction that the question is asking for the magical animal from which the Manx term for "hedgehog" derives]

[10] The Welsh Triads report that this pig, who was guarded by the swineherd Coll, gave birth to grain, a wolf, an eagle, and Cath Palug (*kaht pah-LOOG*), a giant cat that lived on the Isle of Anglesey.

ANSWER: **Henwen**

[10] In Greek myth, a destructive pig known as the Crommyonian (*croh-mee-OH-nee-un*) Sow was killed by this Greek hero as he journeyed from Troezen ("**TREE**-zen") to Athens. He also killed the Minotaur.

ANSWER: **Theseus**

2. These vehicles stir up so much dust that they hide the Xianyang (*shee-ahn-yahng*) Bridge in a poem lamenting that male children "are merely buried amid the grass." For 10 points each:

[10] Name these vehicles that "rumble and roll" on their way to war in a Tang dynasty poem titled for their "song" or "ballad" and written by Du Fu.

ANSWER: army **wagons** [or army **carts**; or **chariots**; accept "**Song of the Wagons**" or "**Ballad of the Wagons**" or "**Ballad of the Army Carts**" or "**Song of the Chariots**" or "**Bing Che Xing**"]

[10] This contemporary of Du Fu was a Tang dynasty poet who wrote "The River Merchant's Wife," which was adapted into an English poem by Ezra Pound.

ANSWER: **Li** Po [or **Li** Bai; or **Li** Bo]

[10] Several Tang dynasty poems feature the "Yellow Crane," a structure of this type that is mentioned in the title of a Li Po poem that describes "seeing off Meng Haoran." An English-language poem titled for one of these structures begins by describing "the bell-rope that gathers God at dawn."

ANSWER: **towers** [accept Yellow Crane **Tower** or Huáng hè **Lóu** or "The **Broken Tower**" (by Hart Crane)]

3. As traditionally defined, this man's "first system" drew heavily from the ideas of Blaise François de Pagan (*blayz frahn-SWAH de pah-GAHN*), who wrote the widely influential treatise *Les Fortifications*. For 10 points each:

[10] Name this French engineer who specialized in siege warfare and defensive structures. This designer of the Citadel of Lille (**LEEL**) was instrumental in capturing and fortifying Namur against Menno van Coehoorn (*KOO-horn*), his Dutch counterpart.

ANSWER: **Vauban** [or Sébastien Le Prestre de **Vauban**; or Marquis de **Vauban**; or Seigneur de **Vauban**]

[10] Vauban served this French ruler who was known as the "Sun King." This absolute monarch revoked the Edict of Nantes (*nahnt*) in 1685's Edict of Fontainebleau.

ANSWER: **Louis XIV** of France [accept **Louis the Great** or **Louis le Grand**; prompt on **Louis**]

[10] Both the French capture and subsequent defense of Namur occurred during this war, which is named for the coalition of the Holy Roman Empire, Spain, Britain, and others that formed to resist Louis's territorial expansions.

ANSWER: War of the **Grand Alliance** [or War of the **League of Augsburg**; or **Nine Years'** War]

4. These cells will grow in mediums enriched in hypo-xanthine, aminopterin (am-in-OP-ter-in), and thymidine ("THIGH"-mih-deen), and they are formed after culturing two types of cells together in polyethylene glycol. For 10 points each:

[10] Name these clusters of cells that are formed by the fusion between cells extracted from the spleen and cells extracted from a lymphocyte tumor.

ANSWER: **hybridomas**

[10] Aminopterin selects for hybridomas over unfused tumor cells by inhibiting synthesis of these compounds, preventing DNA replication. These bicyclic compounds are linked to the sugar-phosphate backbone on nitrogen number 9.

ANSWER: **purines**

[10] Hybridomas are used to generate the “monoclonal” type of these proteins, which are normally secreted by B cells in the immune system. They have exceptional affinity for antigens.

ANSWER: **antibodies** [or **antibody**; or **immunoglobulins**; or monoclonal **antibodies**; or mAbs]

5. This exhibition was so shocking that Teddy Roosevelt declared “that’s not art!” For 10 points each:

[10] Name this 1913 exhibition in New York City that introduced U.S. audiences to European modern art.

ANSWER: 1913 **Armory Show** [or The **International Exhibition of Modern Art**]

[10] The Armory Show was primarily organized by Arthur Davies, Walter Pach (pahk), and this American artist, who went on to paint circus and vaudeville performers in his *Clown in a Black Wig* and *Portrait of the Artist as a Clown*.

ANSWER: Walt **Kuhn** [or Walter **Kuhn**]

[10] When the Armory Show moved to Chicago, crowds burned this artist’s *Blue Nude (Souvenir of Biskra)* in effigy. This Frenchman of *La Danse* and *The Joy of Life* was a leading Fauve.

ANSWER: Henri **Matisse** [or Henri-Émile-Benoît **Matisse**]

6. Jaegwon Kim attempted to prove that those who abide by nonphysical reductionism inherently hold this philosophical position. For 10 points each:

[10] Name this position holding that mental states and events are caused by physical ones, which have no causal power themselves. Frank Jackson offered his “knowledge argument” in an essay titled after qualia of this type.

ANSWER: **epiphenomenalism** [accept **epiphenomenal** qualia; accept word forms of **epiphenomenal**]

[10] The “property” form of this position is often paired with epiphenomenalism. Its “substance” form was proposed by Rene Descartes, who thought two distinct types of substance, the mental and physical, existed.

ANSWER: **dualism** [accept Cartesian **dualism** or substance **dualism** or property **dualism**]

[10] This philosopher attempted to explain the mind-body relationship with his theory of of anomalous monism. He promoted the use of Alfred Tarski’s truth-conditional semantics in his paper “Truth and Meaning.”

ANSWER: Donald **Davidson** [or Donald Herbert **Davidson**]

7. An essay partly titled for this character suggests that some authors’ “implacable nostalgia for the infantile” and “self-congratulatory buddy-buddiness” created an unconsciously disavowed literary archetype. For 10 points each:

[10] Name this literary character who is asked to “come back” in the title of a Leslie Fiedler essay that argues homoeroticism is a latent but recurring theme in American novels.

ANSWER: **Huck Finn** [accept either underlined portion; or **Huckleberry** Finn; accept “**Come Back to the Raft Ag’in, Huck Honey!**”]

[10] “Come Back to the Raft Ag’in, Huck Honey!” examines the intimacy between Huck Finn and the escaped slave Jim, both of whom are characters created by this author.

ANSWER: Mark **Twain** [or Samuel Langhorne **Clemens**]

[10] Fiedler uses this man’s relationship with a *kanaka* as an example of interracial literary homoeroticism. This author wrote about his voyage from Boston to California on the *Pilgrim* in his memoir *Two Years before the Mast*.

ANSWER: Richard Henry **Dana** Jr.

8. In this decade, a U.S. cavalry detachment massacred a group of Cheyenne and Arapaho gathered at Sand Creek in Colorado. For 10 points each:

[10] Name this decade in which Red Cloud organized a namesake war against the U.S. in Wyoming. During this decade, the Dakota War ended with the largest mass execution in American history.

ANSWER: **1860s** [prompt on “the sixties”]

[10] The so-called “Indian Wars” accelerated in the 1860s as commanders such as this man finished serving in the Civil War. He died leading the Seventh Cavalry during the Battle of Little Bighorn.

ANSWER: George **Custer** [or George Armstrong **Custer**]

[10] Ulysses Grant tried to end the Indian Wars by implementing a liberal Native American policy under a Iroquois-born Commissioner of Indian Affairs with this surname. A Comanche chief with this surname, who led his people during the Red River War, is the subject of S. C. Gwynne’s book *Empire of the Summer Moon*.

ANSWER: **Parker** [accept Ely (Samuel) **Parker** or Quanah **Parker**]

9. Answer the following about astronomer extraordinaire Cecilia Payne-Gaposchkin (gah-POH-shkin), for 10 points each.

[10] Payne’s doctoral thesis showed that these two elements were the main components of stars, debunking the idea that stars and Earth had similar elemental compositions. They’re the two most abundant elements in the universe.

ANSWER: **hydrogen** and **helium** [or **H** and **He**]

[10] Payne’s doctoral thesis also showed that the Harvard classification of spectral sequence, based on color, was actually a proxy for this value for a star.

ANSWER: **temperature** [or **T**]

[10] Payne used this equation to relate stellar temperature to spectral class. This equation defines the fraction of an element in ionization state “*i* plus one” as compared to state *i*.

ANSWER: **Saha** equation

10. This man is the namesake of the trophy presented to the winner of the NBA Sportsmanship Award. For 10 points each:

[10] Name this combo guard whose entire NBA career was played with the Detroit Pistons; as an executive, he managed the Pistons to the NBA title in 2004.

ANSWER: Joe **Dumars** [or Joe **Dumars** III]

[10] This point guard for the Memphis Grizzlies, who was teammates with Greg Oden at Ohio State, has won the Joe Dumars Trophy in two of the past three years.

ANSWER: Mike **Conley** Jr. [or Michael Alex **Conley** Jr.]

[10] This reigning NBA MVP, a point guard for the Warriors, won the Joe Dumars Trophy in 2011.

ANSWER: Steph **Curry** [or Wardell Stephen **Curry** II]

11. These units were purged by Mahmud II in the Auspicious Incident. For 10 points each:

[10] Name this elite class of foot soldiers that served the Ottoman Empire. The ranks of these soldiers were initially filled by Christian boys who were kidnapped and converted to Islam under the *devshirme* (dev-SHEER-may) system.

ANSWER: **janissaries** [or **janissary** troops; or **yeniceri**]

[10] These Ottoman cavalry units had a vicious rivalry with the janissaries, even helping Mahmud kill them during the Auspicious Incident. They were given large land grants under the *timar* system.

ANSWER: **sipahi** [or **spahi**; accept timarli **sipahi** or kapikulu **sipahi**]

[10] After this sultan tried to reform the janissaries into a westernized unit called the *nizam-i jedid* (nee-ZAHM ee jeh-DEED), or “new order,” the janissaries responded by mutinying and murdering him in 1808.

ANSWER: **Selim III** [or **Selim-i salis**; prompt on “**Selim**”]

12. In most Christian traditions, this sacrament marks the completion of a process that begins with baptism. For 10 points each:

[10] Name this coming-of-age sacrament in which the subject affirms the faith and receives the gift of the Holy Spirit.

ANSWER: **confirmation**

[10] After Peter and John performed confirmation in Samaria, the namesake of this sin tried to purchase the ability to administer confirmation. This sin refers to attempts to buy or sell church offices.

ANSWER: **simony**

[10] The Orthodox church rite of chrismation, closely related to confirmation, is typically followed by this ceremonial cutting of hair.

ANSWER: **tonsure** [or **tonsura**; accept forms of the word **tonsure** such as **tonsuring**]

13. A poem addressed to this bird concludes by praising “the wise, who soar, but never roam; / true to the kindred points of Heaven and Home.” For 10 points each:

[10] Name this bird that William Wordsworth called an “ethereal minstrel.” In another poem, this bird is said to be a “Poet hidden / in the light of thought” that lets out “profuse strains of unpremeditated art.”

ANSWER: **skylark(s)** [accept “To the **Skylark**” or “To a **Skylark**”; prompt on “**larks**”]

[10] The poem “To a Skylark” was written by this Romantic poet and husband of an author named Mary. He asked “if Winter comes, can Spring be far behind?” at the end of his “Ode to the West Wind.”

ANSWER: Percy Bysshe **Shelley**

[10] This eight-line poem by Shelley, which is titled for its first five words, states that the title entity “vibrates in the memory.” The second and final stanza of this poem describes rose leaves “heap’d for the beloved’s bed” before declaring that “Love itself shall slumber on.”

ANSWER: **“Music, When Soft Voices Die”**

14. The Lee–Yang theorem on the zeros of partition functions was first proven for a model of this phenomenon. For 10 points each:

[10] Name this long-range ordering phenomenon that the 2D Ising model represents as a lattice of plus-one or minus-one spins that interact with their nearest neighbors.

ANSWER: **ferromagnetism** [prompt on **magnetism**; do not accept other forms of magnetism]

[10] Unlike the 1D Ising model, the 2D Ising model displays one of these phenomena, which goes from ordered to disordered at the critical temperature. Other examples of these phenomena include melting and boiling.

ANSWER: **phase transitions** [or **phase changes**; prompt on “**transitions**” or “**changes**”]

[10] Below the critical temperature, and at all but one value of beta, the two-point spin correlation function for the 2D Ising model is approximately equal to the exponential of “minus the distance between the points” over what other quantity?

ANSWER: **correlation length** [prompt on “**length**” or “**xi**”]

15. Together with San Carlo, these sculptural works name a church designed by Francesco Borromini that features a cross-shaped plan dominated by a central oval. For 10 points each:

[10] Name this set of works that Sixtus V commissioned to decorate each of the corners at the intersection of the Via Sistina and Acqua Felice (“aqua” feh-LEE-chay). One of them shows a she-wolf next to a personification of the Tiber reclining under a tree.

ANSWER: **Quattro Fontane** [or **Four Fountains**; accept San Carlo alle **Quattro Fontane**]

[10] This rival of Borromini also used an oval plan for the nearby Sant’Andrea al Quirinale (sahn-tahn-DRAY-ah al kwee-ree-NAH-lay). This artist’s *Fountain of the Four Rivers* is located in Rome’s Piazza Navona.

ANSWER: Gian Lorenzo **Bernini**

[10] A Bernini fountain named for these animals shows three of them sitting on a seashell. These animals also appear on the *baldacchino* at St. Peter’s Basilica because they were the emblems of Urban VIII’s family, the Barberini.

ANSWER: **bees** [or **ape**; or **api**]

16. This psychologist used the term “self-efficacy” to describe people’s belief in their own ability to succeed and accomplish tasks. For 10 points each:

[10] Name this psychologist who studied how children reacted after observing adults aggressively interacting with toys in the Bobo doll experiment.

ANSWER: Albert **Bandura**

[10] With Julian Rotter, Bandura was a pioneer of this theory, under which knowledge acquisition is not purely behavioral but instead is situated in an interpersonal context. It stresses the notion of reciprocal determinism.

ANSWER: **social learning** theory

[10] This psychologist posited that drive reduction was a crucial process for learning. He challenged Tolman’s theories of learning and also posited that individuals put in much more effort when they are close to a goal.

ANSWER: Clark **Hull** [or Clark Leonard **Hull**]

17. Decree No. 171/74 abolished the Directorate-General of Security and other fascist institutions in the wake of this coup, which began when a radio station broadcast the Eurovision song “And after the Farewell.” For 10 points each:

[10] Name this revolution in which the Armed Forces Movement overthrew a European dictatorship. This mostly peaceful coup is named for the red flowers that citizens carried out into the streets in support of the rebel troops.

ANSWER: **Carnation** Revolution [or Revolução dos **Cravos**; or **April 25** Revolution; or Revolução **25 de Abril** de 1974]

[10] The Carnation Revolution ended the rule of the Estado Novo in this European country, which had been ruled by António de Oliveira Salazar from 1932 to 1968.

ANSWER: **Portugal** [or **Portuguese** Republic; or República **Portuguesa**]

[10] A major consequence of the revolution was the independence of various Portuguese colonies. This is the Portuguese term for the ethnically Portuguese refugees who fled decolonization back to Portugal in massive numbers in the 1970s.

ANSWER: **retornados** [prompt on “returned”]

18. This man described a shipwrecked pilgrim’s wanderings in the countryside in his uncompleted long poem *The Solitudes*. For 10 points each:

[10] Name this poet of the late 1500s and early 1600s whose style of *culteranismo* stood in contrast to his rival’s style of *conceptismo*.

ANSWER: Luis de **Góngora** [or Luis de **Góngora** y Argote; or Luis de Argote y **Góngora**]

[10] The rivalry between Góngora and Francisco de Quevedo (kay-VAY-doh) dominated poetry during this period of literary renaissance in Spain, in which the playwrights Lope de Vega and Pedro Calderón de la Barca were active.

ANSWER: Spanish **Golden Age** [or **Siglo de Oro**; or **Golden Century**]

[10] Pedro Crespo holds the title office in a Calderón de la Barca drama about the “mayor” of this small town, where Don Alvaro is hanged for ruining the honor of Pedro’s daughter, Isabella.

ANSWER: **Zalamea** [accept *The Mayor of Zalamea* or *El Alcalde de Zalamea*]

19. Theodore Richards claimed credit for discovering this law, whose original formulation stated that the integration constant can be dropped when integrating the Gibbs free energy with respect to temperature. For 10 points each:

[10] Name this statement sometimes called Nernst's heat theorem because Walther Nernst won his Nobel Prize for discovering it.

ANSWER: **third law** of thermodynamics [prompt on "**third**"]

[10] The modern statement of the third law based on entropy is due to this chemist, who hated Nernst and, as a result, never won a Nobel, even though his theory of bonding, represented on namesake dot diagrams, deserved one.

ANSWER: Gilbert **Lewis** [or Gilbert Newton **Lewis**; accept **Lewis** (dot) diagrams]

[10] Lewis disproved Nernst's formulation of the third law by limiting only perfect crystals to zero entropy; therefore, geometrically frustrated crystals, such as this phase of ice, could never reach it. Nearly all ice on Earth is either in this phase or the much rarer "one-c" phase.

ANSWER: ice **I_h** [or ice **one-h**; or **I-h**; prompt on "**one**" or "**h**" or "**I**" or "ice-phase-**one**"]

20. This violinist collaborated with Fritz Reiner and the Chicago Symphony Orchestra on his recordings of Johannes Brahms's Violin Concerto and Peter Ilyich Tchaikovsky's Violin Concerto. For 10 points each:

[10] Name this virtuosic performer who commissioned William Walton's Violin Concerto. His emotional intensity led Itzhak Perlman to compare this man's playing to a "tornado."

ANSWER: Jascha **Heifetz**

[10] Heifetz owned a violin named the *Dolphin*, which was produced by this Italian family, whose name is synonymous with priceless stringed instruments. You may give either the Latinized or Italian form of their name.

ANSWER: **Stradivarius** [or **Stradivari**]

[10] Later in life, Heifetz taught violin at a university in this city. This symphony's premier orchestra has been headed by Esa-Pekka Salonen and is now led by conductor Gustavo Dudamel.

ANSWER: **Los Angeles**, California [or **L.A.**]

Extra. In a story set in this city, a working-class man passively allows his ex-wife to take advantage of him for six years after she reappears claiming that her house-painter husband has died. For 10 points each:

[10] Kathy repeatedly pawns the title object after requesting it from Harry in "The Fishing-Boat Picture," a story that takes place in this city. The protagonist of "The Loneliness of the Long-Distance Runner" is sent to Essex from this city after robbing a bakery.

ANSWER: **Nottingham**

[10] "The Fishing-Boat Picture" and "The Loneliness of the Long-Distance Runner" are stories by this British author, a member of the Angry Young Men.

ANSWER: Alan **Sillitoe**

[10] In "The Loneliness of the Long-Distance Runner," the protagonist's stolen money is revealed when this phenomenon dislodges it from its hiding place.

ANSWER: **rain** [accept equivalents such as **downpour** or **rainstorm**; accept rain**water**]