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Tossups

1. Upon realizing that she is beautiful, this character is at first incredibly emotionally overcome and then proceeds to go out and buy clothing to make herself even more attractive. Her mother had a dowry of gold and pearls, but the gold was on her head, and the pearls were in her mouth. This character falls in love with a man who visits his father's grave when his grandfather believes he is seeing a girl; that man picks up her father's handkerchief from a garden, believing it to belong to this character, and thus believing her name is (*) Ursule. This character's house is almost robbed by Patron-Minette, Brujon, and Thenardier, but the three are stopped by Eponine, who once lived with this character. For 10 points, name this girl who falls in love with Marius Pontmercy after being adopted by Jean Valjean in *Les Misérables*.

ANSWER: Cosette [or Euphrasie]

2. [Note to moderator (DON'T READ THIS OUT LOUD): pronounce the word "Orixas" carefully, like ore-ICKS-uh] The first saint born in this nation was known for healing people using "paper pills" and was called Anthony of Saint Anne. One religion primarily practiced in this country was founded by a follower of Allan Kardec who at 17 years old claimed to speak to a spirit called "Father Anthony". The primate of this nation is currently Murillo Ramos Krieger. In 2009, a nine-year old in this nation faced automatic excommunication for aborting a pair of twins, according to archbishop (*) Jose Sobrinho. The largest Marian shrine in the world is located in this nation, and is devoted to Our Lady of Aparecida. A mixture of indigenous beliefs and Catholicism in this nation created a religion which venerates ancestors as Egum and believes in spirits spelled with the letter "x," called Orixas; that religion is Candomblé. For 10 points, name this country, in which one celebrates Carnival.

ANSWER: Brazil

3. One attempt to capture this substance used a ball of cesium inside an aluminium sphere. Khoury and Weltman proposed that this substance consists of so-called "chameleons". One theory of it keeps its density below the radiation density until matter-radiation equality, after which it changes. One phenomenon that verifies the existence of it has a non-zero cross-correlation function between galaxy density and temperature. The existence of this substance drives the equation of state parameter below negative (*) one third. The scale factor is proportional to the exponential of the time times Hubble's constant in universes dominated by it. Evidence for its existence includes CMB anisotropies caused by the late-time integrated Sachs-Wolfe effect. This substance is known to exist due to the negative deceleration parameter found by surveys of Type Ia supernovae. For 10 points, name this substance that comprises about 70% of the energy density of the universe and drives its expansion.

ANSWER: dark energy [accept chameleons before mention]

4. One of this writer's last books opens by examining G. E. Moore's statement "If you do know that here is one hand, we'll grant you all the rest" and considers how one truly knows what they know. Jean-Francois Lyotard's concept of metanarratives was inspired by his readings of this philosopher. This philosopher imagined a tribe of builders that each designate one of four slabs with different letters of the alphabet to show the connection between language and action. This author of "On Certainty" formulated the (*) rule-following paradox in another book. This philosopher used the example of a community of people who each have a box with a beetle inside to argue that private language has no importance. For 10 points, name this philosopher who wrote *Philosophical Investigations* and *Tractatus-Logico-Philosophicus*.

ANSWER: Ludwig Wittgenstein

5. One reagent used to create these compounds can be activated with 1,2-di-iodo-ethane to get rid of a layer of oxide. A mixture of iodine and lithium chloride, or a solution of 1,10-phenanthroline can be used to titrate these compounds. When reacting them with a nitrile, they form an imine which can be hydrolyzed into a carbonyl. Pouring a solution of these compounds over dry ice is an easy way to make (*) carboxylic acids, and their reaction with water creates the corresponding alkane and is often explosive. These compounds, which are usually dissolved in THF or diethyl ether, are usually added to carbonyl groups in order to form carbon-carbon double bonds. For 10 points, name these highly nucleophilic reagents that consist of a magnesium halide bound to a carbon.

ANSWER: Grignard reagents

6. A character in this novel has an inexplicable tattoo reading “Pamela” on his hip and uses a SteelSak to kill animals. Another character in this novel dresses entirely in black clothing, hence his nickname “The Darkness.” The tour in the wake of this book’s publication was the subject of David Lipsky’s book *Although Of Course You End Up Becoming Your Self*. U.S.O.U.S. officer Hugh Steeply, who often disguises himself as “Helen,” liaises with Remy Marathe, a quadruple agent ostensibly working for a (*) Quebecois separatist group in this novel. The deformed Mario and Phoenix Cardinals punter Orin are members of this novel’s central family. Another member of that family included an apology delivered by Joelle van Dyne in a film known as “the Entertainment” because it obsesses anyone who views it. For 10 points, name this novel set largely at the Enfield Tennis Academy, starring many members of the Incandenza family and written by David Foster Wallace.

ANSWER: Infinite Jest

7. One of the two versions of this painting features intricately rendered Stars-of-Bethlehem’s and heartsease flowers in its background, reflecting its artist love of botany. That version of this painting was thought to be part of an altarpiece for that was flanked by a depiction of a green angel by Bernardino Luini, and a depiction of a red angel holding a lute by Ambrogio de Predis. The version of this painting in London’s National Gallery features Mary wearing a (*) dark blue robe and references Christ’s death by being set in a grotto. Both versions of these paintings, which make use of *sfumato*, feature an angel, an infant John the Baptist, and an infant Jesus. The Louvre contains the more famous version of, for 10 points, what painting by Leonardo da Vinci, which depicts the Virgin and Child in a rocky landscape?

ANSWER: The Madonna of the Rocks or Virgin of the Rocks

8. A piano piece by this composer begins in the Lydian mode of A and oscillates between two modes as it repeatedly modulates around the circle of fifths. “Hymning SLEWS” and “Loops and Verses” are the inner movements of a piece by this composer said to remind him of the energetic dancing of the title sect. This composer called for tape recordings of city traffic, footsteps, and a siren at the start of a piece played against the backdrop of voices reciting of a long (*) list of names. A boy’s voice repeats the word “missing” in the rhythm of a heartbeat at the start of a “memory space” by this composer that sets text from the New York Times’s “Portraits of Grief” and was commissioned after the September 11 attacks. For 10 points, name this composer of *Phrygian Gates*, *Shaker Loops*, *On the Transmigration of Souls*, and the opera *Nixon in China*.

ANSWER: John Adams [or John Coolidge Adams; do not accept “John Luther Adams”]

9. This man allegedly wanted to use a photograph of himself bare-chested standing with a pith helmet titled “STRIPPED FOR ACTION” in one campaign where he tied his opponent to “the PAC.” He was caught on camera ripping up a sign in Chinese that allegedly discussed a loan Howard Hughes made to his brother and had earlier gone on a “station wagon” tour during an election where he pledged to “castrate” an opponent. A sheet comparing that opponent to Vito Marcantonio, a (*) socialist Labor Party member, was colored in pink by his campaign manager Murray Chotiner and he responded to a New York Post story alleging that he had a secret fund by pledging that he would never give back a spotted dog in his “Checkers” speech. For 10 points, identify this California Congressman and Senator who later served as President, nicknamed “Tricky Dick.”

ANSWER: Richard Nixon

10. The final leader of this polity was lured to his death with the promise of sex with Laudomia; he was instead wrapped in a carpet and buried. One account of a battle won by this polity states that the only death occurred when one man fell off his horse; that was the Battle of Anghiari. The brother of one leader of it was assassinated in a plot arranged by Archbishop Francesco Salviati; during that event in this polity, another man, (*) Jacopo, was subsequently thrown naked into the Arno River as a result of the Pazzi conspiracy. In 1497, this city was paralyzed by a Dominican priest who called for the mass destruction works like the Decameron and indoctrinated Sandro Botticelli. For 10 points, identify this city, the location of the Bonfire of the Vanities led by Savonarola, the home of the Medici.

ANSWER: Florence [or Florentine Republic]

11. Uteroglobin is a secretory protein exclusively found in the one set of cells in this organ. The tert-butyl group in salbutamol makes it selective for beta2-adrenergic receptors in its main role of treating disorders of this organ. During vasoconstriction, ACE converts angiotensin I to angiotensin II in this organ. A common chronic disease of this organ is often managed with leukotriene antagonists or mast cell stabilizers. People with one disease of this organ are often classified as (*) “blue bloaters” or “pink puffers”. A cannula is inserted in an invasive procedure to relieve the inflammation in the lining of this organ, called pleurisy. Mesothelioma is a cancer that forms on that same lining of this organ, and cancers of it are often classified into small-cell or non-small-cell. For 10 points, name this organ which has three and two lobes on each side in humans.

ANSWER: lungs

12. **This man defeated one opponent after that opponent was caught on camera at a McDonalds negotiating with the mother of an underage girl who had been bribed into having an underage sexual relationship. This vanquisher of Buz Lukens won a 2014 primary over J. Winteregg, who claimed this man had “electile dysfunction.” This member of the Gang of Seven defeated Roy Blunt to replace Tom (*) Delay and this co-author of No Child Left Behind beat Daniel Webster in a January 2015 election. He faced a July 2015 motion from Mark Meadows to “vacate” his chair due to past apostasies like negotiating the 2011 debt-limit increase and discontent from the Freedom Caucus. For 10 points, identify this man, originally slated to be replaced by Kevin McCarthy, who in 2011 replaced Nancy Pelosi as Speaker of the House.**

ANSWER: John Boehner

13. **This thinker proposed that the Wintuan and Yokutsan language families belonged to the greater language group of Penutian in a collaboration with Roland B. Dixon. This thinker analyzed the reasons that Hawaiian priests intentionally violated taboos concerning food, claiming that the Hawaiians suffered from “culture fatigue.” He coined the word “tribelet” to refer to a certain type of social organization. With Clark Wissler, this man proposed the idea of regions with (*) shared traits or religions. This thinker developed the idea of “culture areas”. His wife Theodora wrote a biography of one of his most famous subjects, who she claimed lived “in Two Worlds.” For 10 points, name this student of Franz Boas who studied the last Yahi Indian, Ishi, and produced the *Handbook of the Indians of California*.**

ANSWER: Alfred Kroeber [accept Roland Dixon until “Roland”]

14. **One ruler of this name suffered a blistering defeat against the forces of Muhammad ibn Marwan after 20,000 Slavs defected at the Battle of Sebastopolis. That ruler of this name convoked the Quinisext Council to stamp out pagan practices and ordered Pope Sergius I arrested. One ruler of this name had his armies defeated by a force under Azarethes at the Battle of Callinicum, part of the Iberian wars. The banker Peter Barsymes was employed by that ruler of this name, who was challenged by an usurper named (*) Hypatius in an incident where the “blue” and “green” factions united against him. That ruler of this name send the generals Mundus and Narses to quell the Nika Revolts and employed John the Cappadocian and Tribonian to compile a certain codex. For 10 points, name this name shared by the last ruler of the Heraclian Dynasty and the husband of Theodora who created a namesake Law Code as Byzantine Emperor.**

ANSWER: Justinian [do NOT accept “Justin” as that was a different name]

15. **This man threw forty members of the nobility to be eaten by his dogs when he caught them practicing homosexuality. One opponent of this man was intercepted on his way to punishing him by a mob who pushed him out into the ocean; that’s how this man became governor of Veragua. This man tried to be a pig farmer in Hispaniola, but ended up in a barrel with his dog when he needed to escape his creditors. This man never met his wife, who was the daughter of his enemy (*) Pedrarias, who later had him beheaded for treason. In a possible reference to the Incas, this man was told by Panquicao of a southern land so rich that people ate off plates of gold. This man went west of the Gulf of Úraba and founded Darién, the first stable Spanish settlement in South America. For 10 points, name this first European conquistador to cross the isthmus of Panama and reach the Pacific.**

ANSWER: Vasco Nunez de Balboa

16. **This author wrote about Arthur Rowe, who accidentally receives a cake at a charity event, in *The Ministry of Fear*. In one of this man’s novels, the *Esperança* carries both a secret letter and a package of diamonds, and Ali is murdered by wharf rats. The love interest of one of his protagonists worked at the Arc-en-Ciel on Jaccareo road. Fred Hale’s presence in a certain seaside city leads to Rose’s marriage to Pinkie Brown in a novel by this man, who created a character who admires the theories of York Harding and searches for someone to provide a (*) “Third Force.” He wrote a novel in which Louise tries to reconcile her husband Major Scobie’s suicide with his Catholicism, and another novel in which a man pretends that vacuum cleaner parts are sketches of a secret military installation. For 10 points, name this author of *Brighton Rock*, *The Quiet American*, *The Heart of the Matter*, and *Our Man in Havana*.**

ANSWER: Graham Greene [or Henry Graham Greene]

17. **Immanuel Bloch’s group recently observed bosonic ladders that undergo a low-dimensional version of this effect. A dual of this effect is used to explain quark confinement in the MIT bag model. A pair of equations governing this effect can be combined into one by using the Coulomb gauge, which then sets \mathbf{J} equal to negative n sub e squared over $m c$ times the vector potential; combining that equation with Ampere’s Law gives a characteristic (*) length scale for this effect. This effect occurs due to vortices of supercurrent that swirl around the surface, which allows the substance undergoing this effect to have a magnetic susceptibility equal to negative one. The**

explanation of this effect is one of the successes of BCS theory. For 10 points, name this effect in which external magnetic fields are expelled from the inside of a superconductor.

ANSWER: Meissner-Ochsenfeld effect

18. One character in this film learns that his lover's husband died five miles away from where they are living when he was travelling on an open road. Its title character reads in a letter that his wife and his family have relocated to Paris two years after he was captured. The ending of this film is set at a hydroelectric dam and features a man exclaiming "Ah...then it's a gift" upon seeing a woman's *balalaika*. After this film's title character sees his beloved, he dies of a (*) heart attack before they can reunite. The frame narrative of this movie opens with Alec Guinness's character, Yevgraf, asking a woman if she knew his brother. In this film, Pasha disappears during a fight against the Germans and becomes General Strelnikov, who commands the Bolshevik army. For 10 points, name this David Lean film in which Omar Sharif plays the title physician and poet, which is based off of a novel by Boris Pasternak.

ANSWER: Doctor Zhivago

19. One member of this group gives a "present" by throwing a cow's foot at another figure. This group employed a beggar named Arnaeus, or Irus (EAR-us), to run messages. These people, some of whom came from Cephanelia, Dulichium, and Zacynthus, forced the minstrel Phemius to work for them. Melantheus had his ears and nose cut off for siding with these people who were led by a son of Polybus and a son of Eupheithes named (*) Antinous and Eurymachus. They were continuously fended off by the weaving and unweaving of a funeral shroud for Laertes. Several are killed by Philoteus and Eumeus after they fail to string a bow and fire an arrow through twelve axes. For 10 points, name these people who attempted to court Odysseus' wife.

ANSWER: the suitors of Penelope [or the Proci: accept reasonable equivalents]

20. This author wrote about Javier and his Jewish wife Elizabeth, who travel with a Czechoslovakian who helped build Theresienstadt. This author also wrote about a house fire that begins after a woman refuses to sell her jewelry, and about how that woman's husband then moves in with the blind Hortensia. Another one of his novels is about a French-speaking historian who is mesmerised by a green-eyed girl during a job interview to finish the memoirs of an old general; the protagonist of that novel is surprised to notice a psychic connection between his lover and her aunt Consuelo. This author of (*) *Aura* also wrote a novel about General Arroyo and Harriet Winslow's encounters with an elderly American author and a novel in which a dying tycoon discusses the formation of the PRI and the Mexican Revolution. For 10 points, name this Mexican author of *The Old Gringo* and *The Death of Artemio Cruz*.

ANSWER: Carlos Fuentes [or Carlos Fuentes Macias]

Bonuses

1. This 2012 novel was praised by James Wood, who had criticized its author's earlier work for exemplifying "hysterical realism." For 10 points each:

[10] Name this book by Zadie Smith about Londoners Leah, Natalie, Fox, and Nathan. Its section titles include "VISITATION", "GUEST", and "CROSSING".

ANSWER: NW

[10] In Smith's novel *White Teeth*, Marcus Chalfen is a geneticist whose major project involves injecting these animals with carcinogens. One of these animals is addressed in a Robert Burns poem that referred to it as a "wee, sleekit, cow'rin, tim'rous beastie."

ANSWER: a mouse [accept word forms like mice; accept FutureMouse]

[10] Smith's novel *On Beauty* is loosely based on this E.M. Forster novel, which focuses on the Wilcoxes, the Schlegels, and the Basts, who all spend some time at the title estate.

ANSWER: Howards End

2. Name some things about ancient Greek art, for 10 points each:

[10] This black-figure vase was sculpted by Ergotimos and painted by Kleitas. It depicts the Calydonian Boar hunt, the funeral games of Patroclus, and the wedding of Peleus and Thetis.

ANSWER: Francois Vase

[10] This well-known type of Greek ceramic vase was mostly used for transporting wine. These vases have long, narrow necks and two long handles; they were often frequently decorated.

ANSWER: Amphora

[10] This Dark Age civilization in Greece used *rhyton*, or vases from which liquids could be poured during a ceremony. This civilization on Crete painted many frescoes in a palace at Knossos.

ANSWER: Minoans

3. Solving this equation for a multinuclear system often involves approximating the nuclei as stationary, while the electrons move around. For 10 points each:

[10] Name this central equation of quantum mechanics, whose simplest formulation states that the Hamiltonian of the wavefunction is equal to the total energy times the wavefunction. It has a time-independent version.

ANSWER: **Schrodinger** equation

[10] In the Copenhagen interpretation, the Schrodinger equation applies always except for wavefunction collapse. In this interpretation by Everett, it applies all the time to every splitting of the system into different branches.

ANSWER: **many-worlds** interpretation

[10] Measurement and wavefunction collapse cause this quantum operator to collapse from a pure state to a reduced mixture. This operator also loses its off-diagonal elements in quantum decoherence.

ANSWER: **density** matrix [or **density** operator]

4. This work is framed as a manuscript subtitled "For Madmen Only." For 10 points each:

[10] Name this work in which Hermine introduces Harry Haller to the pleasures of drugs and women, and to Pablo, who takes Haller to The Magic Theatre.

ANSWER: **Steppenwolf** [or **Der Steppenwolf**]

[10] *Steppenwolf* is by this German-Swiss author, who wrote about the title character's search for spiritual enlightenment in his novel *Siddhartha*.

ANSWER: Hermann **Hesse**

[10] This 1930 novel by Hesse describes the friendship between a student and his young teacher at a monastery school.

After meeting and having sex with a woman while gathering herbs, the student leaves the monastery and becomes an artist, while his friend goes on to become an abbot.

ANSWER: **Narcissus and Goldmund** [or **Narziss und Goldmund**; or **Death and the Lover**]

5. Consider an argument of the form "All men are mortal. Socrates is a man. Therefore, Socrates is mortal." For 10 points each:

[10] That argument is an example of this type of reasoning, in which premises are used to reach a logically certain conclusion. It is often contrasted with inductive reasoning.

ANSWER: **deductive** reasoning [or **deduction**; prompt on "top-down logic"]

[10] That argument has this logical property, which differs from validity in that not only does the conclusion follow from the premises, but the premises are also true.

ANSWER: **soundness** [accept word forms]

[10] Formatting the argument as "If Socrates is a man, he is mortal. Socrates is a man; therefore, he is mortal" makes it a version of this type of argument, simplified as: P implies Q; P is true; therefore, Q is true.

ANSWER: **modus ponens** [or **modus ponendo ponens** or **MP** or **implication elimination** or **rule of detachment**]

6. This man's "canonical five" victims include Elizabeth Stride, and Stephen Knight suggested that his acts were part of a conspiracy to cover up an illegitimate child fathered by Prince Albert Victor. For 10 points each:

[10] Name this legendary serial killer responsible for the death of several prostitutes in the Whitechapel district.

ANSWER: **Jack the Ripper**

[10] Jack the Ripper sent this document to the head of the Whitechapel Vigilance Committee, which ends "catch me when you can Mister Lusk." Included with it was a piece of kidney.

ANSWER: "**From Hell**" letter

[10] Among the retroactive suspects in the Whitechapel murders was this avant-garde artist of "Jack the Ripper's Bedroom." According to Knight, he was part of a masonic conspiracy.

ANSWER: Walter **Sickert**

7. A composer from this family developed the da capo aria in his role as the leader of the Neapolitan school of opera. For 10 points each:

[10] Name this family of composers. During his time in the Spanish royal court, another member of this family published a collection of thirty pieces titled *Essercizi*.

ANSWER: **Scarlatti**

[10] That member of the Scarlatti family was this son of Alessandro and composer of 555 harpsichord sonatas.

ANSWER: **Domenico** Scarlatti

[10] One of Scarlatti's sonatas is a G minor piece written in this form and nicknamed *Cat*. The coda of the fourth movement of the *Jupiter* Symphony is in a two-subject version of this musical form.

ANSWER: **fugue** [or **fugato**; or **double fugue**]

8. For 10 points, answer the following about Hades' love life:

[10] This daughter of Demeter was kidnapped by Hades; she later ate six pomegranate seeds, leading her to spend half the year in the Underworld and half the year with her mother.

ANSWER: Persephone

[10] This cousin of Theseus once decided to kidnap Persephone and make her his own wife; Hades punished this rival in love by leaving him to sit on a bench for eternity.

ANSWER: Pirithous

[10] This nymph once had an affair with Hades, for which Persephone trampled her in a fit of jealousy. Hades took pity on her and, in true Greek style, turned her into a fragrant plant used in Greek funeral rites.

ANSWER: Menthe [or Minthe]

9. This theory is sometimes named for Gillespie and Nyholm. For 10 points each:

[10] This theory assumes that atoms arrange themselves in ways that minimize electron repulsion and includes designations such as trigonal planar, sawhorse, T-shaped, and square planar.

ANSWER: VSEPR theory [also accept Valence Shell Electron Pair Repulsion]

[10] Another method of describing molecular shapes is to assign point groups, which describe these elements of a molecule. They include mirror planes, proper and improper axes of rotation, and inversion centers.

ANSWER: symmetry elements

[10] Determine the point group of the planar molecule BF₃, which contains a C₃ axis, three perpendicular C₂ axes, and a horizontal mirror plane.

ANSWER: D_{3h}

10. *Wakamiya* was the first Japanese aircraft carrier commissioned for this war. For 10 points each:

[10] Name this war that ended in 1918 during which Japan allied with the Entente Powers. As part of this war, Japan seized Shandong province, rights to which were transferred to Japan by the treaty of Versailles.

ANSWER: WWI

[10] When this nation refused to withdraw the *SMS Kaiserin Elisabeth*, Japan declared war on this nation after already declaring war on Germany.

ANSWER: Austria-Hungary

[10] Mitsuomi Kamio was ordered to take this Chinese city from German control following the entry of Japan in WWI. The siege of this city laid the groundwork for the Japanese expanding their influence in China.

ANSWER: Qingdao [or Tsingtao]

11. This recursive algorithm iteratively revises the lengths of paths until an accurate value is found for every pair of points it operates on. For 10 points each:

[10] Name this algorithm, which is often used to find the transitive closure of a directed graph.

ANSWER: Floyd-Warshall algorithm [Floyd's algorithm, the Roy-Warshall algorithm, the Roy-Floyd algorithm, or the WFI algorithm.]

[10] The Floyd-Warshall algorithm is also used to calculate the path length of this quantity for all pairs of points on a graph. Dijkstra's algorithm will also find this for a single starting point.

ANSWER: shortest path

[10] The Floyd-Warshall algorithm makes use of this technique, in which problems are broken down into subproblems and results are memo-ized.

ANSWER: dynamic programming

12. This art form requires "Four Treasures" to create, and the "three perfections" were an effort to integrate it with poetry and another art form. For 10 points each:

[10] Name this art form, which was used by Wang Xishi to preface the poetry collection *Poems Gathered at the Orchid Pavilion*.

ANSWER: calligraphy

[10] The *kaishu* style of calligraphy was developed in this Asian country, whose painters include the water colorist Gao Xinjian.

ANSWER: China

[10] This artist's study of calligraphy inspired the thick black strokes of his painting *Minnie Mouse*. This painter, who taught at Black Mountain College, made a series inspired by the statue *Venus de Willendorf*.

ANSWER: Willem de Kooning

13. One of these people lent his name to the Bing variety of cherries. For 10 points each:

[10] Identify this group of people opposed by the Workingmen's Party in California. One of them was the the plaintiff in *Wong Kim Ark vs. US*, which clarified the doctrine of birthright citizenship.

ANSWER: Chinese-Americans [or Chinese Laborers]

[10] Chinese-Americans working for Union Pacific Coal were targeted by white laborers in this September 1885 "massacre," which led President Cleveland to dispatch federal troops to restore order.

ANSWER: Rock Springs Massacre

[10] In 1871, the posting of a large bail by Sam Yuen led to the lynching of 17 Chinese-Americans by a drunken mob in this city, whose Chinatown near Arcadia Street was burned.

ANSWER: Los Angeles

14. This book was initially banned in South Africa, but was unbanned three months later. For 10 points each:

[10] Name this novel in which Rosa deals with the legacy of her father, Lionel, and with the anti-white militant activism of her childhood friend Baasie.

ANSWER: Burger's Daughter

[10] *Burger's Daughter* was written by this female South African of *The Conservationist* and *July's People*.

ANSWER: Nadine Gordimer

[10] The Burger family was based loosely on the family of this South African anti-apartheid activist, who led the defense at the Rivonia Trial. Gordimer also wrote a 1961 essay entitled "Why Did [this man] Choose To Go to Jail?".

ANSWER: Bram Fischer [or Abram Louis Fischer]

15. Asymmetric information, commitment problems, and issue indivisibilities are the three "rationalist" explanations proposed by James Fearon to explain the occurrence this phenomenon. For 10 points each:

[10] Identify this phenomenon that may be the outcome of escalation from a crisis. The "Correlates of [this phenomenon]" project has a 1,000 battle-death threshold for defining the "interstate" variety of them.

ANSWER: war

[10] This type of war occurs when a state declining in relative power chooses to challenge a state rising in power before the rising state gets more powerful. The Japanese attack on Pearl Harbor followed this type of logic.

ANSWER: preventive or preventative war

[10] In contrast to a preventive war, this type of war is initiated to spoil an attack thought to be imminent rather than a long-term future threat. The 6-Day War is often cited as an example of this type of war.

ANSWER: pre-emptive war [accept word forms like pre-emption]

16. This war's battle of Gisikon was the first time in history in which ambulances were used on the battlefield. For 10 points each:

[10] Name this 1848 civil war in which a league of seven Catholic states including Zug and Lucerne formed an alliance against the central government.

ANSWER: Sonderbund war

[10] The Sonderbund War took place in this nation, which since that time has been famous for its staunch neutrality. The Helvetic republic was a client state set up in this modern day nation.

ANSWER: Switzerland

[10] Guillaume-Henri Dufour, the general who led the victorious forces in the Sonderbund War, was one of the founders of this organization which was established by the First Geneva Convention.

ANSWER: International Red Cross

17. Kate Hudson recently endorsed this product through an Instagram hashtag, pointing out its benefits for skin. For 10 points each:

[10] Name this recently trendy substance with high levels of lauric acid which is extracted from *C. nucifera*.

ANSWER: coconut oil

[10] The oil's pungency is due to allyl isothiocyanate and is made from a namesake seed and used in South Asian cuisine.

ANSWER: mustard oil

[10] Penn Quiz Bowl's favorite regional food is often prepared with chili oil infused with this spice, which gives Chinese food its characteristic *ma-la*, or numbing and spicy, flavor.

ANSWER: sichuan peppercorn

18. Name the following Pulitzer-Prize winning American plays, for 10 points each:

[10] David Mamet penned this winner of the 1984 Pulitzer, in which Shelley Levene confesses to robbing manager John Williamson's office and Ricky Roma continues to be the most successful salesman in the office.

ANSWER: Glengarry Glen Ross

[10] 2012's prize went to this play by Ayad Akhtar, in which the Muslim lawyer Amir is convinced by his nephew, Abe, to appear in court supporting an imam who Abe believes has been arrested due to Islamophobia.

ANSWER: Disgraced

[10] *Joe Versus the Volcano* director John Patrick Shanley won a Pulitzer and a Best Play Tony for this 2004 play, in which the conservative nun Sister Aloysius accuses the progressive Father Flynn of sexual impropriety with a young student.

ANSWER: Doubt: A Parable

19. This quantity is theorized to be about ten billions for the human population. For 10 points each:

[10] Name this ecological quantity which is the maximum population size for a species that the environment can sustain indefinitely.

ANSWER: carrying capacity [or k]

[10] Early twentieth century ecologists modeled the self-limiting growth of bacteria with this curve shape, used in the Verhulst-Pearl equation or law of population growth.

ANSWER: sigmoid growth curve [or S shaped growth curve or logistic curve]

[10] These factors which limit the size of a population include natural disasters and do not depend on the population size.

ANSWER: density-independent factors

20. In one incident, the sea calms after this man is thrown overboard, and before he dies God briefly orders a plant to give him shade from the sun. For 10 points each:

[10] Name this prophet who spent three days and three nights in the belly of a large fish.

ANSWER: Jonah or Yunus

[10] Jonah preached to the inhabitants of this city. After its inhabitants finally listened to him, they put on sackcloth, fasted, and prayed, leading god to spare the city.

ANSWER: Nineveh

[10] This text says the whale died when he swallowed Jonah and was resurrected when it spat him out. This text was published by Moses de Leon, who said it was compiled by Simon bar Yohai while hiding in a cave.

ANSWER: Zohar