

ACF Nationals 2013

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Tossups

1. According to the Knaster-Tarski theorem, a lattice with this property also has the property that an order preserving function has a group of fixed points that also generates a lattice with this property. Spaces with this property have an expansion constant of at most 2. A space with this property can always be constructed from a space without this property such that the new space contains the original as a dense subspace. The Baire category theorem states that every metric space with this property is a Baire space. Infinite-dimensional normed vector spaces that have this property obey the Open Mapping theorem and are named for Banach. A subset is compact if and only if it is both totally bounded and has this property, according to the Heine-Borel theorem. For 10 points, name this property, which is possessed by a metric space if every Cauchy sequence in that space converges to a point also in that space.

ANSWER: complete [accept word forms like completeness]

2. A portrait this artist exhibited at the 1889 Salon des Independants was nicknamed “Dwarf with the Enormous Head” by the press. Alfred Jarry reportedly set this artist’s *Portrait of Madame A. J.* on fire. In addition to painting *Boy on the Rocks*, a balloon, a ship, and a newly erected Eiffel Tower can be seen in the background of a self-portrait where he wears a black beret and holds a palette. Four men in striped blue and orange outfits stand in a grove of trees in this artist’s *The Rugby Players*. This artist of *Myself*, *Portrait-Landscape* depicted a tropical scene with lotus flowers surrounding a half-reclining nude woman reaching towards a black snake charmer. Another work by this one-time tollgate operator depicts the title woman resting next to a mandolin and in front of a lion. For 10 points, name this French Nativist painter of *The Dream* and *Sleeping Gypsy*.

ANSWER: Henri Julien Felix Rousseau

3. One of this author’s poems ends with the command “Hold hard then, heart. This way at least you live.” This author of “The Fist” quoted the lines “Farewell, green fields, farewell, ye happy groves” in a poem whose speaker’s eyes “burned from the ashen prose of Donne.” He wrote that he was “poisoned with the blood” of the gorilla and the superman in a poem which laments “brutish necessity” wiping its hands on “the napkin of a dirty cause.” This poet charged that “a smell of dead limes quickens in the nose the necessity of empire” in a poem comparing England to the title decrepit structure. Another of his poems ends by asking “How can I face such slaughter and be cool? How can I turn from Africa and live?” For 10 points, name this author of “Ruins of a Great House” and “A Far Cry From Africa,” who used his native St. Lucia as the setting for his long poem *Omeros*.

ANSWER: Derek Walcott

4. In his paper, “The Status of Content,” Paul Boghossian argued that this theory, which he classified as a form of error-theoretic irrationalism, was self-contradictory because it presupposes the claims about truth which it itself denies. Stephen Stich has argued in favor of this theory in a 1983 book which claims that we should reject semantic taxonomies in favor of syntactic ones. One philosopher has argued for this theory on the grounds that it is “parochial” to “assume that communicative structures are the model for cognitive structures” in the book *Neurophilosophy*. This theory’s major proponent wrote a 1981 paper in which he used this theory to deny the existence of propositional attitudes such as intentions, and this theory generally holds that folk psychology can be completely reduced to neuroscience, thereby removing the need for mentalistic talk. For 10 points, identify this philosophical theory of mind championed by Patricia and Paul Churchland.

ANSWER: Eliminative materialism [or eliminativism]

5. This group's founder proposed a namesake "non-interest bond bill" in his magazine, *The Cause and the Cure*. A radical California politician named Carl Browne served as this group's second-in-command, and this group's founder named his son Legal Tender and later founded a newspaper called "Sound Money". This group called itself the "Commonwealth of Christ". It demanded the establishment of a 500 million dollar "Good Roads" program as part of its so-called "petition in boots". Founded in Massillon, Ohio, this group protested the government's inaction during the Panic of 1893. This group's most famous effort came to a halt when its leader was arrested for trespassing on the Capitol lawn. For 10 points, identify this group of unemployed workers who marched from Massillon, Ohio to Washington.

ANSWER: **Coxey's Army**

6. One of these works includes a third movement *gigue* consisting of two repeated movements, the second of which is three times as long as the first. The first movement of that one lacks a tempo marking and opens in cut-time with an eighth beat pickup. One of these works includes a movement sometimes replaced in performance with a violin sonata because of its brevity. That second movement *adagio* consists of two half-note chords, the latter of which is marked by a fermata and functions as major V chord at the end of a cadence. The fifth of these pieces, in D major, features a harpsichord which functions as part of both the *ripieno* and *concertino* groups. The first of these works, in F major, is the only one to have four movements, and the fourth one, in G major, includes a part written for echo flute, though it is usually played by a recorder. For 10 points, name this group of six pieces that J. S. Bach composed for Christian Ludwig, the margrave of the title German region.

ANSWER: **Brandenburg Concertos** [or **BWV 1046-1051**]

7. This city's namesake county has a seaside resort town called Youghal that lies on the delta of a Blackwater River. This city contains the Blackrock Castle Observatory and the Cathedral of St. Fin Barre. This city's namesake harbor contains the headquarters of its country's navy on Haulbowline Island. After an ambush at Dillon's Cross, a reprisal action against this city in 1920 resulted in large areas being burnt down by the Auxiliary Division. This city is the capital of its country's South-West Region and lies on the River Lee. This city's namesake county lies to the east of County Kerry, to the west of County Waterford, to the southwest of County Tipperary, to the south of County Limerick, and north of the Atlantic Ocean. It is the most populous city in the province of Munster. For 10 points, name this second most populous Irish city.

ANSWER: **Cork** [or **Corcaigh**]

8. Along with Randolph Churchill, Henry Drummond-Wolff, and John Gorst, this politician made up the Fourth Party, an offshoot of the Conservatives. Following his resignation from his highest post, this man's successor survived the Relugas Compact, which attempted to remove him from the leadership of the Liberal Party. This man's appointment to the post of Chief Secretary for Ireland may be the origin of the British phrase "Bob's your uncle," since his uncle was Robert Cecil, Lord Salisbury, who he later succeeded as Prime Minister. His enforcement of the Crimes Act in Ireland led him to be nicknamed "Bloody," and his government signed the Entente Cordiale with France. As Foreign Secretary under David Lloyd George, this politician sent a document later incorporated into the Treaty of Sevres to Walter Rothschild. That letter expressed the government's support for a Jewish homeland in Palestine. For 10 points, name this British statesman who issued a famous "Declaration" in 1917.

ANSWER: Arthur James **Balfour**

9. In systems that experience necking, the apparent version of this mathematical entity has a local maximum known as the ultimate strength. One parameter of merit near the origin of this relationship is proportional to the square of the flexure natural frequency times the temperature, as can be measured using impulse excitation. A counterintuitive non-linear increase in this occurs due to strain hardening. The area under it gives the maximum stored potential energy density and is known as the toughness. This curve has a cusp at the yield strength, where plastic deformation begins and before which it is linear with an elastic modulus as its slope. This graph conventionally has an "X" at the rupture point. For 10 points, name this curve created by a tensometer, which shows how a material's dimensions change with applied force.

ANSWER: stress/strain curve

10. In this novel's nineteenth chapter, "The fires," its main character is shocked when a woman whispers the word "devil" at the moment she orgasms. Near the end of this novel, a child smuggles poison to the prison cell of the Finnish revolutionary Katri. Its main character obsessively puts on a dead relative's white suit, and is interrogated by the councilor Maximov. After returning from Dresden, its main character stays with the landlady Anna Sergeyevna, and becomes inspired by his debates with the leader of the People's Vengeance party, Nechayev. At the beginning of this novel, its main character travels to the title city after learning that his son Pavel has died. It was the first novel its author wrote after the end of apartheid, and ends with the title character writing one of his novels. For 10 points, name this novel by J. M. Coetzee which fictionalizes the life of Dostoyevsky.

ANSWER: *The Master of Petersburg*

11. This man created a large neon sign declaring "Peace, Work and Well-being," and his regime played back the screams of Martin Almada to his wife from his torture, causing her death. The Febrerista Party opposed this man, but was legalized after being deemed to no longer pose a threat. Martin Almada would later discover the so-called "Archives of Terror" documenting the crimes of this man who was supported by peasant irregulars known as the "barefoot ones." He lost power after being ousted in a coup lead by Andres Rodriguez, and himself took power following a coup against Federico Chavez. In one incident, after a failed coup attempt he was driven to the Brazilian embassy in the trunk of a car, which gave him the nickname "Colonel Trunk." For 10 points, identify this man responsible for the construction of the Yacyreta and Itaipu dams, the leader of the Colorado Party who from 1954 to 1989 led Paraguay.

ANSWER: Alfredo Stroessner

12. This artist replaced Harold Land on the album *Clifford Brown and Max Roach at Basin Street*. He played a stop-time solo on the song "I Know That You Know," the last track on an album he recorded with Sonny Stitt and Dizzy Gillespie. He used a pianoless trio to record an album beginning with his version of "I'm an Old Cowhand," as well as his *Freedom Suite*. Nicknamed "Newk" because of his resemblance to Don Newcombe, this musician recorded the album *Way Out West*, and composed a calypso-influenced standard based on a Virgin Islands nursery song. John Coltrane joined him on the title track of his album *Tenor Madness*. This musician frequently practiced on New York City's Williamsburg Bridge, and composed standards such as "Oleo" and "St. Thomas." For 10 points, name this tenor saxophonist who recorded the album *Saxophone Colossus*.

ANSWER: Theodore Walter "Sonny" Rollins

13. In this religion, humans are not considered to be born into society, but rather into the universe. Humans used to be gods, but the increasing complexity of their world brought them down to a lower level. This religion's central text is critical of the narrow minded approach to the universe offered by science, describes enlightenment as a "Celestial eye" reaching its highest point. This religion's practices have names such as "penetrating the cosmic extreme" and "divine Buddha showing a thousand arms." At the heart of this religion is the Dharma Wheel practice, which focuses on the three central tenets of the universe, truthfulness, forbearance, and compassion. For 10 points, name this Chinese religion, based in qigong exercise, whose practitioners are tortured and forcibly organ-harvested by the Chinese government.

ANSWER: **Falun Gong** [or **Falun Dafa**]

14. Members of this class have horn-like projections called cerata in order to increase respirator surface area. A type of hemocyanin found in one member of this class, Megathura crenulata, is used to couple haptens during antibody production. One set of species in this class are named for their patelliform shell and primarily live in aquatic environment; those are limpets. One sub-clade in this class undergoes 180 degree torsion between their mantle, visceral mass, and head during development. The radula of this class of animals has an odontophore and a set of chitinous teeth called the cuticula. The courtship ritual of some members involves a calcium carbonate needle known as the "love dart." Whelks, conches, and periwinkles are included in this class, whose members often have spiral-shaped shells. For 10 points, name this taxonomic class of molluscs that includes snails and slugs.

ANSWER: **Gastropoda** [or **gastropods**]

15. One of this book's sections focuses on a Elijah, a man who works to keep his house in the exact condition it was when his wife Sarah died eight years ago. Two characters touchingly sing "Home, Sweet Home" in front of its narrator in its section "The Old Singers." Another character in this book tells the narrator about the Scottish explorer Gaffett, who encountered "creatures of fog and cobweb" in the North Pole. Its narrator meets Abby Martin, a woman obsessed with Queen Victoria, and walks across Green Island with William Blackitt. This book includes a character sketch of Captain Littlepage, and helped popularize regionalism when it was published in 1896. It takes place in Dunnet Landing, where its narrator stays with the herbalist Almira Todd. For 10 points, name this book whose narrator hears the stories of elderly residents of a Maine fishing village, written by Sarah Orne Jewett.

ANSWER: *The **Country of the Pointed Firs***

16. Prior to this conflict, representatives from both of the main sides debated in the Colloquy of Montreal. After this conflict's siege of Bram, 100 prisoners had their noses chopped off and were sent to Cabaret, a castle that formed a defense complex with the adjacent commune of Lastours. Peter II of Aragon met his end in this conflict's Battle of Muret, and the entire population of Beziers was supposedly massacred in this conflict. This conflict was sparked by the murder of Pierre de Castelnau, a papal legate of Innocent III. Notable moments in this conflict include the order "kill them all, because God will know his own" and the excommunication of Raymond VI of Toulouse. For 10 points, identify this war in Languedoc that sought to wipe out a certain religious group of southern France.

ANSWER: **Albigensian Crusade** [or **Cathar Crusade**]

17. San Biagio and Palma employed this model to study gelation in sickle-cell hemoglobin. A modification of this model by Krigbaum and one of its namesakes avoids the assumption of uniform distribution. This model admits a dimensionless interaction parameter that is similar in form to the van Laar heat of mixing formula that approximates one-half for polymer solutions whose sites have the same volume as solvent particles. This model is a lattice model where each solvent molecule and each monomer occupies one space in the lattice, and there are no free spaces. It gives the change in Gibbs free energy of mixing as the change for an ideal solution plus an interaction parameter χ . For 10 points, name this doubly-eponymous model of polymer thermodynamics that takes into account the great dissimilarity of molecular sizes between a polymer and solvent.

ANSWER: **Flory-Huggins** theory

18. This author of *Fundamentals of the Linguistic Prototype* died while writing a book on the Kawi language of Java. This linguist conducted an 1821 study of place names in Spain and France, concluding that the Basques once extended over a much larger area. This man's statement "languages makes infinite use of finite means" is often quoted by Noam Chomsky, and this man is seen as one of the first to argue that human language is governed by rules. This man described language as the "formative organ of thought" and considered differences between languages to be *Weltansicht*, or "differences of representing the world," an argument that inspired later linguists to formulate a theory based on how the Hopi viewed time. Apart from helping to inspire the Sapir-Whorf hypothesis, he also wrote political theory and represented his native Prussia at the Congress of Berlin. For 10 points, identify this linguist whose brother Alexander was a famous naturalist who names an ocean current off the coast of Peru.
ANSWER: Wilhelm von Humboldt [prompt on Humboldt]

19. In the *Eiríksmal*, this deity and Odin discuss the arrival of Eric Bloodaxe. This deity relates how Odin used the drill Rati to trap the giant Suttung in a hole. In the *Loksenna*, Loki accuses this deity's wife of being man-crazed after claiming that this god murdered that wife's brother; Loki also rejects this deity's peace offerings of an arm-ring, sword, and horse. In the *Skaldskaparmál*, this deity has a discussion with Aegir that involves the nature of the heiti. Oaths were sworn over this god's cup, which kings would drink from before ascending the throne. This son of Odin has runes carved on his tongue and was married to the guardian of the golden apples, Idunn. For 10 points, identify this bard, the Norse god of poetry.
ANSWER: Bragi

20. One character in this poem tells its main character "When all treasure is tried, truth is the best." This poem's first section ends with its main character showing a pardon to a priest who declares it invalid, causing him to angrily rip it apart. In another of its scenes, Betty the Breweress lures a glutton into a tavern where he drinks so much that he pisses two quarts and vomits. This poem is divided into sections entitled "passus," and follows a character who is warned by Lady Holy Church against the evil Lady Meed. Its prologue begins "In summer season when soft was the sun," and describes how its narrator falls asleep at the Malvern Hills and dreams of a "fair field full of folk." In its second half, its narrator searches for the characters Do-Well, Do-Better, and Do-Best. For 10 points, name this fourteenth century allegorical poem attributed to William Langland.
ANSWER: *William's Vision of Piers Plowman*

Bonuses

1. This man tricked his brothers into helping him raise a series of islands from the ocean floor using a fishhook. For 10 points each:

[10] Name this culture hero who also prevented the sun from moving so quickly across the sky by using his sister's hair.

ANSWER: Maui

[10] Maui also appears in Maori myth, in which a pair of deities, the sky father and the earth mother, are responsible for creation. Name either.

ANSWER: Rangi OR Papa

[10] Maui attempted to make people immortal by performing this action on the death goddess Hine-nui-te-po. Unfortunately, he failed when she was awakened by the singing of a group of birds.

ANSWER: crawling into her vagina

2. This pianist collaborated with vibraphonist Gary Burton on such works as *Moonchild*. For 10 points each:

[10] Name this jazz pianist, who played a motif mimicking the seating signal of Cologne's opera house in his improvised *Koln Concert*, the best-selling piano record of all time.

ANSWER: Keith Jarrett

[10] Keith Jarrett spent some time playing electric organ with Miles Davis along with this other jazz pianist, who later went on to play with the group Origin and compose the Latin-influenced piece *Spain*.

ANSWER: Chick Corea

[10] Corea played on "Miles Runs the Voodoo Down," a track from this 1970 rock-influenced Miles Davis album which begins with "Pharaoh's Dance" and features the track "Sanctuary."

ANSWER: Bitches' Brew

3. In Act Two, this character orders Kent to be put into the stocks. For 10 points each:

[10] Name this sadistic husband of Regan, who gleefully shouts "Out, vile jelly!" while gouging out Gloucester's eyes.

ANSWER: Duke of Cornwall

[10] Regan and the Duke of Cornwall appear in this Shakespearean tragedy, whose title character dies in the arms of his daughter Cordelia.

ANSWER: King Lear

[10] One possible source of *King Lear* is John Florio's translation of this author's works into English. His ideas inspired a treatise on wisdom by Pierre Charron.

ANSWER: Michel de Montaigne

4. Mittelschmerz is a sharp pain associated with this event, which typically occurs on day 14 of a standard endometrial cycle. For 10 points each:

[10] Name this process that results in the formation of the corpus luteum, which is partly triggered by a spike in LH.

ANSWER: ovulation

[10] During pregnancy, the corpus luteum is maintained by the secretion of this hormone from the placenta. This hormone is detected by home pregnancy tests. Google searches for it mostly turn up pages for a bizarre fad diet though.

ANSWER: human chorionic gonadotropin [or hCG]

[10] If ovulation doesn't end in a pregnancy, the corpus luteum degrades into this structure composed primarily of fibrous scar tissue.

ANSWER corpus albicans

5. An interesting predecessor to this philosophical idea was developed by the Ash'arite school, who stated that God moves every atom at every instant. For 10 points each:

[10] Name this philosophical stance that says that God is the only true causal agent working in the world. It was notably espoused by Nicholas Malebranche.

ANSWER: occasionalism

[10] Malebranche espoused his occasionalist views in this magnum opus, which was placed on the Index of Banned Books.

ANSWER: *The Search After Truth*

[10] Malebranche also wrote a book titled *Dialogue Between a Christian Philosopher* and a philosopher from here. This nation was home to a type of consequentialist philosophy which adhered to a set of teachings called the Ten Doctrines.

ANSWER: China

6. This is simply the transport of a quantity through a fluid by the motion of the fluid itself. For 10 points each:

[10] Name this fluid behavior which is non-diffusive, unlike the related behavior of convection.

ANSWER: advection

[10] The advection operator or advective derivative is this quantity dotted into the gradient. The advection operator operating on this quantity gives the convective acceleration of the Navier-Stokes equation.

ANSWER: the fluid velocity [prompt on v or u]

[10] Adding the advective derivative to the time partial derivative yields the total time derivative named for this version of fluid mechanics, as contrasted with the Eulerian version. In this description, a mapping function gives the state of a given fluid element at a later time as a function of its initial state.

ANSWER: Lagrangian fluid mechanics

7. Edmund Heines, the deputy commander of the SA, was summarily executed during the Night of the Long Knives because he was discovered to be this type of person. For 10 points each:

[10] Name this group of people who were marked with pink triangles in Nazi concentration camps. Heinrich Himmler was particularly worried about these people because his SS was only composed of handsome men.

ANSWER: German homosexuals [or German gays; or Homosexuellen; or Schwules]

[10] Kuno von Moltke was one of several advisors to Wilhelm II who were accused of being practicing homosexuals during this affair, which rocked pre-WWI Germany.

ANSWER: Harden-Eulenberg Affair

[10] Germany attempted to legalize gay marriage in 2011, but it was blocked in this upper chamber of the German Parliament, which represents the states.

ANSWER: Bundesrat

8. This author depicted the plight of female mill workers in "The Paradise of Bachelors and the Tartarus of Maids." For 10 points each:

[10] Name this American author who collected his Civil War poetry in *Battle-Pieces*. His *Piazza Tales* include his short story "Bartleby, the Scrivener."

ANSWER: Herman Melville

[10] *The Piazza Tales* also includes this short story whose narrator mistakes the title salesman for "that illustrious God, Jupiter Tonans." Its title character attacks the narrator in a fury when a thunderstorm abates and a rainbow begins to shine.

ANSWER: "The Lightning-Rod Man"

[10] In this unnervingly sexual chapter of *Moby-Dick*, Ishmael describes the ecstasy he feels when preparing spermaceti from captured whales. Its title is almost certainly a reference to masturbation.

ANSWER: "A Squeeze of the Hand" [or Chapter 94]

9. The three weeks leading up to this holiday are known as the “Three Weeks,” and this holiday has been referred to as “the saddest day in Jewish history.” For 10 points each:

[10] Name this holiday in which Jews fast to commemorate the destruction of the First and Second Temples of Jerusalem.

ANSWER: Tisha B’ay [or Ninth of Av]

[10] Tisha B’ay also honors the occurrence of this effort, which saw the destruction of the city of Betar.

ANSWER: Bar Kokhba’s Revolt

[10] On Tisha B’ay, traditional reading of The Book of Lamentations is often followed by the reading of these elegies mourning Jewish tragedies.

ANSWER: kinnot [or kinnos; or kinoth]

10. A woman grinds up stars to feed to a hungry moon in this artist’s 1958 painting *Celestial Pablum*. For 10 points each:

[10] Identify this Spanish-Mexican surrealist. Her painting *Embroidering the Earth’s Mantle* made Oedipa Maas cry with the despair of the void in *The Crying of Lot 49*.

ANSWER: Remedios Varo Uranga

[10] One amusing Varo painting depicts vegetarian vampires sipping the juice from watermelons and tomatoes with straws. This Norwegian’s own *Vampire* shows a man with his head nestled into the bosom of a red-headed woman, and he also painted the *Frieze of Life*.

ANSWER: Edvard Munch

[10] Varo was a contemporary of Salvador Dali, who included the face of his wife Gala in the top-left of this painting, and a 6 year old picture of himself from *The Spectre of Sex Appeal* in the bottom right. This painting features a repeated image of the Venus de Milo.

ANSWER: *The* Hallucinogenic Toreador

11. This rebellion began as a result of the murder of James Scobie. For 10 points each:

[10] Name this 1854 rebellion that involved Australian gold prospectors upset about exorbitant prospecting-license fees.

ANSWER: Eureka Stockade

[10] The Eureka Stockade elected this person as their commander-in-chief though he would lose an arm during the rebellion.

ANSWER: Peter Lalor

[10] The Eureka Stockade took place at Ballarat in this Australian province with capital located at Melbourne.

ANSWER: Victoria

12. Putting this element’s oxide in an electric furnace generates its carbide, which is used in tank armor. For 10 points each:

[10] Name this electron-deficient element with atomic number 5. A compound containing this element bonded to four hydride ions is commonly used as a reducing element.

ANSWER: boron

[10] 10 boron atoms form a particularly poisonous example of these compounds, which generally speaking are between the size of a bulk solid and a molecule. FA Cotton coined this term to describe compounds with lots of metal-metal bonds.

ANSWER: cluster compounds

[10] This set of rules is used to describe the configuration of cluster compounds containing boron. It labels compounds as closo-, nido-, arachno-, or hypho- based on the polyhedral arrangement.

ANSWER: Wade’s rules [or Wade/Mingos rules; or Polyhedral Skeletal Electron Pair theory]

13. This man distributes Tsunanori Yamao's "The League of the Divine Wind" to convince others of his ideals. For 10 points each:

[10] Name this right-wing activist who plans a "Showa Restoration" and resolves to kill Kurohara, but is arrested and put on trial.

ANSWER: Isao Inuma [accept either name in either order; prompt on Kiyoaki Matsugae]

[10] After a meeting at the Sanko Falls, this character comes to believe that Isao is the reincarnation of Kiyoaki Matsugae. He later becomes a judge and adopts the malevolent orphan Toru Yasunaga.

ANSWER: Shigekuni Honda [accept either name in either order]

[10] Isao Inuma and Shigekuni Honda appear in this tetralogy by Yukio Mishima, which includes the novels *Runaway Horses* and *Spring Snow*.

ANSWER: *The Sea of Fertility* tetralogy [or Haru no Yuki]

14. The statesman who proposed these acts was a chancellor of the Exchequer in the ministry of William Pitt the Elder. For 10 points each:

[10] Name these acts including the Suspending Act and Quartering Act that were proposed prior to the American Revolution

ANSWER: Townshend Acts

[10] This military governor of Massachusetts was responsible for the Quartering Act and for ordering a redcoat march on Lexington and Concord.

ANSWER: Thomas Gage

[10] Opinion turned against the Townshend Acts as a result of this letter by an American statesman who later defended the Constitution in the Fabius Letters.

ANSWER: Letters From a Farmer in Pennsylvania, to the Inhabitants of the British Colonies [or Letters From a Pennsylvania Farmer]

15. This composition opens in the key of C minor as the flute, oboe, clarinet, and first violin play a melody that is then taken up by the solo violin. For 10 points each:

[10] Name this virtuosic piece for solo violin and orchestra, its composer's Opus 20. It premiered in 1878, and is based on the folk rhythms of the *csardas*.

ANSWER: Zigunerweisen [or Gypsy Airs]

[10] *Zigunerweisen* was written by this virtuoso Spanish violinist, the dedicatee of Saint-Saens's *Introduction and Rondo Capriccioso* and Eduard Lalo's *Symphonie espagnole*.

ANSWER: Pablo de Sarasate

[10] Sarasate composed a popular *Fantasy* on themes from this opera which riffs on its Seguidilla and Habanera.

ANSWER: Carmen

16. Friedrich Engels used this book's arguments as the basis for his treatise *The Origin of the Family, Private Property, and the State*. For 10 points each:

[10] Name this book by Lewis Henry Morgan, which argues that cultures progress through the states of savagery and barbarism before arriving at civilization.

ANSWER: Ancient Society

[10] Morgan performed a tremendous amount of field research about the customs of this Native American tribe, whose "Great Law of Peace" may have influenced parts of the US constitution.

ANSWER: Iroquois [or Haudenosaunee]

[10] Morgan's evolutionary theories were adopted by this man, who encouraged American anthropological research as the founder of the Smithsonian's Bureau of Ethnology. In 1881, he became the director of the United States Geological Survey.

ANSWER: John Wesley Powell

17. A language is regular if and only if there exists one of these entities that accepts it. For 10 points each:

[10] Name this class of theoretical machine that is less capable than the pushdown automata.

ANSWER: **finite-state automata** [or finite-**state machines**]

[10] A finite-state automaton has this property if it has a transition function such that the next state can certainly be found from the current state. Automata without this property are said to have transition relations rather than transition functions.

ANSWER: **deterministic** [accept word forms like **determinism**]

[10] For a given deterministic finite automaton, this task can be accomplished by Hopcroft's or Moore's algorithms. This goal can be accomplished by finding a nondeterministic finite automaton equivalent to the reverse of a given DFA, then constructing the NFA's power set, then reversing that.

ANSWER: **minimization** [accept equivalents like finding the DFA with the **smallest** number of states for a given language]

18. The National Alliance-led Jubilee alliance candidate beat the Orange Democratic Movement-led CORD alliance candidate in this country's March 2013 presidential election. For 10 points each:

[10] Name this country in which the IEBC oversaw the elections per the rules of a 2010 constitution. Like in 2007, Raila Odinga, this country's current Prime Minister, will appeal the results.

ANSWER: Republic of **Kenya** [or Jamhuri ya **Kenya**]

[10] A politician with this surname won the Kenyan presidential election. Uhuru shares this surname with Jomo, the Kikuyu leader who was Kenya's first president.

ANSWER: **Kenyatta**

[10] In 2007, Raila Odinga ran for president against this politician who has been the Kenyan president since 2002. This ethnic Kikuyu was accused of electoral fraud in that election by Odinga, a claim which led to post-electoral violence.

ANSWER: Mwai **Kibaki**

19. The Battle of Veillance was part of a succession war caused when this dynasty went extinct – a conflict that a young Cardinal Mazarin famously helped resolve. For 10 points each:

[10] Name this house that ruled Mantua until 1627.

ANSWER: House of **Gonzaga**

[10] The War of the Mantuan Succession was important to this Holy Roman Emperor, whose wife was Mantuan. He was Holy Roman Emperor for most of the Thirty Years War.

ANSWER: **Ferdinand II**

[10] The War of the Mantuan Succession was settled by this 1631 treaty, which left the pro-French candidate in charge of the city.

ANSWER: Treaty of **Cherabusco**

20. The author of this novel used Jules Neraud's travel diary to write its sections about the island of Reunion. For 10 points each:

[10] Name this novel published in 1832, in which the title character is trapped in a loveless marriage with Colonel Delmare and declares her love for Sir Ralph before leaping over the side of a waterfall.

ANSWER: **Indiana**

[10] *Indiana* was written by this French novelist of *Mauprat* and *Consuelo*. She had affairs with Jules Sandeau, Prosper Merimee, and Frederic Chopin.

ANSWER: George **Sand** [or Amantine Lucile Aurore **Dupin**]

[10] This French author of the plays *Lorenzaccio* and *The Moods of Marianne* wrote about his affair with George Sand in his autobiographical novel *The Confession of a Child of the Century*.

ANSWER: Alfred de **Musset**