



NASAT 2015 - Round 05 - Tossups

1. About 20 lines into this text, its narrator remembers declaiming shepherds such as himself as "mere bellies" who "know how to speak many false things" and recalls being given a laurel rod by all the Heliconian muses to whom it is dedicated. Nausithous and Nausinous are the final characters introduced in the 1,022 surviving lines of this text, which claims that Eros *predated* the darkness spirits Erebus and Nyx. One of the earliest sources to mention the hundred-handed Hecatonchires, this text claims that the arche, or first substance, of the universe was Chaos, which existed before the many Titans, gods, and beasts it lists later on. For 10 points, name this eighth-century BCE account of the origins and genealogy of the gods by Hesiod.

ANSWER: ***Theogony*** <Jackson>

2. Eva Moskowitz protested this man's policies by having children march with placards reading "Let My Children Learn." He declined a March 2014 challenge from Liam Neeson to go on a horse stable tour. His wife, a former member of the Combahee River Collective, once wrote the *Essence* magazine article entitled "I Am a Lesbian." Patrick Lynch claimed this politician threw Lynch and his colleagues "under the bus." This man said he and his African American wife, Chirlane McCray, warned his son about being careful with the police, which led to numerous officers turning their backs to this politician following the December 2014 shootings of two cops. For 10 points, name this current Mayor of New York City.

ANSWER: Bill **de Blasio** [or Warren **Wilhelm** Jr.] <Cheyne>

3. Three circular rooms, each with a rotating "poster rack" allowing visitors to see forty-two artworks two at a time, compose this architect's Tomb of Agamemnon-inspired Painting Gallery. This architect refused to reveal the secret inscription atop the "staircase to nowhere" that makes up his Monument to Lincoln Kirstein. The open pediment atop a skyscraper designed by this architect earned that structure the nickname "Chippendale Building." A brick cylinder conceals the bathroom in this architect's personal residence in New Canaan, Connecticut, the design of which drew from another architect's Farnsworth House. For 10 points, name this collaborator with Mies on the Seagram Building who is best known for designing the Glass House.

ANSWER: Philip **Johnson** [or Philip Cortelyou **Johnson**] <White>

4. The delta form of this substance is bound to albumin. Diazosulfanilic acid reacts with this substance in the van den Bergh reaction. Excess levels of a form of it may cross the blood-brain barrier and cause kernicterus. The star-28 allele of UGT1A1 can cause high levels of this compound to circulate in the blood in Gilbert's syndrome. The Z,Z form of this compound is converted into the more soluble E,Z-isomer during phototherapy on newborns. This open-chain tetrapyrrole is solubilized by glucuronyltransferase, and increased amounts of it are released in hemolytic anemia. It is metabolized from a "verdin" precursor and broken down to the compounds that give feces and urine their colors. For 10 points, name this product of heme catabolism that at high levels causes jaundice.

ANSWER: **bilirubin** [prompt on **hematoidin**; prompt on **bile pigments**] <Smart>

5. Sandwiching the metric between this operation and its transpose gives back the metric. The six parameters describing these operations combine with four translational parameters to form the Poincare group. These operations do not change the invariant interval, which is often written as "delta s-squared." If these operations are purely spatial, they correspond to rotations, while those without rotations are called "boosts." A one-dimensional one of them sets the new position equal to old position minus velocity times old time, all times its namesake's relativistic gamma factor. For 10 points, name these relativistic transformations that relate coordinates in different inertial reference frames, named for a Dutch physicist.

ANSWER: **Lorentz** transformations <Eltinge>

6. In response to a novel by the Marquis de Custine about traveling through his country, this ruler's government sponsored a scholarly investigation by August von Haxthausen. During his reign, this man created a secret police called the Special Corps of Gendarmes. This emperor's principle of "Official Nationality" was proclaimed by his Minister of Education, Sergei Uvarov. He appointed Alexander Benckendorff to lead the Third Section secret police. The Northern Society of Sergei Troubetzkoy attempted to replace this tsar with his brother Constantine in the Decembrist Revolt. For 10 points, name this tsar of Russia at the start of the Crimean War who succeeded Alexander I.

ANSWER: **Nicholas I** [or **Nikolai I**; or **Nikolai Pavlovich** Romanov; prompt on **Nicholas**; prompt on **Nikolai**] <O'Rourke>

7. In a parenthetical remark in this essay, the author insists, "Never tell me, by the way, that the dead look peaceful." This essay opens with the author reminiscing about the only time he was important enough to be hated by everyone. This essay's author admits that he is "only an absurd puppet," though he seems like "the leading actor," claiming that "when the white man turns tyrant, it is his own freedom that he destroys." The title event of this essay occurs after the "mahout" goes the wrong way to search for a creature that has "gone must." This essay's author performs that action in front of a crowd of villagers while serving as a British officer in Burma. For 10 points, name this George Orwell essay that describes the killing of a tusked animal.

ANSWER: "**Shooting an Elephant**" <Sy>

8. A poem by this author includes questions like "Will there be beds for me and all who seek?" and "Does the road wind uphill all the way?" In a poem by this author, the speaker's heart is compared to a "singing bird," an "apple tree," and a "rainbow shell" because "my love has come to me." A poem by this author notes, "One may lead a horse to water, twenty cannot make him drink," before describing a character being kicked and pinched. This author wrote, "Better by far you should forget and smile," in the poem "Remember." This poet included the moral "there's no friend like a sister" in a poem in which Lizzie begins to waste away after buying fruit from merchants crying "come buy, come buy." For 10 points, name this poet of "Goblin Market."

ANSWER: **Christina Rossetti** [or **Christina Georgina Rossetti**; prompt on **Rossetti**] <Brownstein>

9. A form of this process characterized by sets that dip in the opposite direction of the foreset has ripples that move with a positive angle of climb. That form of this process occurs, locally, at an angle to the overall plane and is prefixed with "cross-." In limnology, this term is applied to a process that creates the epilimnion, metalimnion, and hypolimnion, a situation that occurs in the summer after spring turnover. In sedimentary geology, an undisturbed example of this process would, after lithification, create a sequence of sedimentary rocks that allows the use of the law of superposition for relative dating. It can be divided into bedding and lamination. For 10 points, give this term that, in sedimentary geology, refers to the layering of different sediments as depositional conditions change.

ANSWER: **stratification** [or **bedding**, ripple-drift cross-**lamination**, or climbing ripple cross-**lamination** until "this term" is read] <Voight>

10. In one of this composer's string quartets, the third movement is a short eleven-bar recitative that modulates from B minor to E major as an introduction to the lengthy fourth movement, a set of variations in A major and 2/4 time. That string quartet by this composer is in seven movements played *attacca* and written in C-sharp minor. The finale of this composer's last symphony begins with low string recitatives that alternate with quotations of themes from the previous three movements and includes both a Turkish march in 6/8 time and a choral setting of a poem about a "spark of divinity" and a "daughter of Elysium." For 10 points, name this composer whose Ninth Symphony includes the "Ode to Joy."

ANSWER: Ludwig van **Beethoven** <Kim>

11. Two historic neighborhoods in this city are linked by the "neck-breaking steps." A natural feature on the border of this city's northeastern borough of Beauport is one-and-a-half times taller than Niagara Falls. This city is connected to its largest suburb of Levis by the Pierre Laporte Bridge. Its Dufferin Terrace overlooks Lower Town from near a patina-roofed luxury hotel designed by Bruce Price. Parliament Hill is found west of Upper Town in this home of Montmorency Falls and the Chateau Frontenac, whose Cap-Diamant is home to the only remaining fortified city walls north of Mexico. General James Wolfe was killed at the Plains of Abraham within this city. For 10 points, name this Francophone provincial capital.

ANSWER: **Quebec** City, Quebec <White>

12. While visiting this city, Rowland Mallet nearly falls to his death to pick a flower for the title sculptor's fiancée in the novel *Roderick Hudson*. This city, where Karen Stone engages in a love affair in a Tennessee Williams novel, is the setting for a story whose final line of dialogue, "I had Barbara," implies that Mrs. Ansley had sex with Delphin Slade. At the end of *The Portrait of a Lady*, Isabel Archer returns to this city, where she lived with Gilbert Osmond. Edith Wharton titled a story for this city's "fever," an archaic euphemism for malaria. In this city, a young expatriate visiting from Geneva named Winterbourne becomes fascinated by the flirtatious title girl of a Henry James novella. For 10 points, name this amorous Italian city in which Daisy Miller visits the Colosseum.

ANSWER: **Rome** <Bollinger>

13. Empirically, constants in this equation are related to the reduced temperature raised to the negative 1.6 and negative 4.2 powers. In this equation, a certain parameter times P over RT is equal to the residual Gibbs energy and, therefore, the logarithm of the fugacity coefficient. The constants in this equation get a prime when they're expressed using pressures. The Boyle temperature can be derived when it is truncated to one term. Kamerlingh Onnes proposed this equation and showed that after the first two terms, its coefficients are independent of temperature. It gives the compressibility factor as one plus a power series of volume. For 10 points, name this infinite-series equation of state contrasted with cubic equations of state.

ANSWER: **virial** equation of state <Silverman>

14. This kingdom worshiped at a temple built atop the Chamundi Hills. The Lalitha Palace built in the capital of this kingdom is now a five-star hotel. This kingdom's rule was dominated by the Wadiyar dynasty. Eyre Coote died while fighting against this kingdom in a war that was ended by the Treaty of Mangalore. This kingdom's last sultan successfully used rockets with attached blades in the Battle of Pollilur but died in 1799 while defending Seringapatam. This kingdom was centered on what is now Karnataka. This kingdom became a princely state after the death of its ruler Tipu Sultan, who succeeded his father, Hyder Ali. For 10 points, name this kingdom in southern India that fought four wars with England.

ANSWER: **Mysore** <Golimlim>

15. A 1967 Herbert Gans book used participant observation to study the "ways of life and politics" in one of these places. Kenneth Jackson studied the role of the HOLC in the history of these places in his book *Crabgrass Frontier*. Ta-Nehisi Coates's "The Case for Reparations" describes how these areas received "green lines" for investment while others were "redlined." The poorly managed expansion of these communities, with negative environmental consequences, is called "sprawl." Four early examples of these communities were built for returning World War II veterans by William Levitt. For 10 points, name these well-to-do areas where people reside just outside of cities.

ANSWER: **suburbs** [or **suburbia**; or **Levittowns** until "*Crabgrass*" is read; prompt on **urban** areas; prompt on **cities**] <Bollinger>

16. In a Franz Grillparzer play, this person orders the trusty servant Rhamnes to send away the slave Melitta. In a poem by this writer, the speaker is so enamored with a boy that she declares, "Mother dear, I can't finish my weaving." In a story named for a line by this author, a soldier gets time off to attend his brother's wedding to Muriel. This poet boasted, "Although they are only breath, words which I command are immortal." The speaker of a poem by this writer says, "I drip with sweat, trembling shakes my body," after seeing a man who is "a god in my eyes." This poet addressed a "Lady of beauty" in the only complete surviving work by her, "Hymn to Aphrodite." For 10 points, name this Greek poet from Lesbos.

ANSWER: **Sappho** <Sy>

17. This man once declared that "I have but one lamp by which my feet are guided, and that is the lamp of experience." After witnessing the condition of the Eastern State Hospital, this leader decided instead to convert part of the Scotchtown plantation for the care of his mentally ill wife. In his early career, this speaker opposed James Maury in a legal case concerning debts paid with tobacco; that case was called the "Parson's Cause." This Anti-Federalist refused to attend the Constitutional Convention because he smelled "a rat in Philadelphia." After an inflammatory speech, he allegedly said, "If this be treason, make the most of it!" For 10 points, name this politician from Virginia who delivered an address that concluded with the phrase "Give me liberty or give me death!"

ANSWER: Patrick **Henry** <Clarke>

18. Two answers required. Two paintings contrast these two individuals' armchairs, one of which holds a lit candle and books, the other of which holds a tobacco couch and a pipe. One of these two people expressed their tortured relationship by creating a jug shaped like a disfigured human head. According to a discredited story, one of these people was a fencing master who attacked the other with a sword. These two artists collaborated in a "studio of the south" called the "Yellow House" until an emotional outburst in which one threatened the other with a razor and then turned it on himself. For 10 points, name these two artists whose cohabitation in Arles fell apart when one of them cut off his own ear.

ANSWER: Vincent **van Gogh** and Paul **Gauguin** <Bollinger>

19. A work inspired by the philosophy of this non-Roman thinker is the principal subject of Stephen Greenblatt's book *The Swerve*. This philosopher suggested eating and drinking simple foods because people used to luxury are likely to lose their luxuries. This philosopher's view of nature was mostly derived from Democritus of Abdera, though he believed some occurrences were under human control. This author of a *Letter to Menoeceus* is often considered the first person to state the problem of evil, which is his namesake paradox. This man's philosophy inspired Lucretius's *De rerum natura*. His guiding principles were ataraxia and aponia, or freedom from fear and the absence of pain. For 10 points, name this Greek philosopher whose standard of judgement was pleasure.

ANSWER: **Epicurus** <Sy>

20. Jozef Bem led a unit of exiled soldiers from this country who used the unofficial slogan "For our freedom and yours" while fighting in the Spring of Nations. A king of this country attempted to reform the power of the nobility by writing the 3rd of May Constitution, which was opposed by nobles in the Targowica Confederation. Any member of this country's parliament was allowed to nullify legislation by using the liberum veto, one of its "Golden Freedoms." This country joined with an eastern neighbor in the Union of Lublin, and its parliament was known as the sejm ("**same**"). For 10 points, name this country that was joined in a commonwealth with Lithuania.

ANSWER: **Poland** [or Republic of **Poland**; or Rzeczpospolita **Polska**; or the **Polish-Lithuanian Commonwealth** until "Lithuania" is read] <O'Rourke>

21. This man speculates that he will soon attend a girl's wedding shortly before the girl remarks that men are "all palaver and what they can get out of you." This character tells the story of Johnny, a horse who was fascinated with a statue of King Billy. Toward the end of the story he appears in, this character feels his identity "fading out into a grey impalpable world." He is teased for his dedication to galoshes at a party hosted by Kate and Julia Morkan right before Epiphany. This character feels a "vague terror" seize him after his wife says, "I think he died for me," in reference to a boy in the gasworks who fell in love with her named Michael Furey. For 10 points, name this husband of Gretta and protagonist of James Joyce's story "The Dead."

ANSWER: **Gabriel** Conroy [or Gabriel **Conroy**] <Sy>



NASAT 2015 - Round 05 - Bonuses

1. These entities can be described using an atlas, which is a union of overlapping charts. For 10 points each:
[10] Identify these mathematical constructs, topological spaces that locally resemble an n-dimensional Euclidean space.

ANSWER: **manifolds**

[10] Generally, you want a manifold to be second countable and possess a topological property named for this mathematician. His namesake formulation of the concept of a dimension is applied to fractals; for example, the Sierpinski triangle has a value of 1.585.

ANSWER: Felix **Hausdorff**

[10] The sphere can be viewed as a manifold of this many dimensions, which makes sense because up close it is homeomorphic to a plane.

ANSWER: **two** dimensions [that's why it's called a **2**-sphere, even though it's visualized in three dimensions!]
<Schindler>

2. This man was the subject of two poisoning attempts by a servant after he allegedly discovered an affair between Antonio Perez and Ana de Mendoza, the second Princess of Eboli. For 10 points each:

[10] Name this secretary to a Governor-General of the Netherlands who was assassinated on Easter Monday in 1578. According to tradition, he was killed outside Madrid's Church of St. Maria.

ANSWER: Juan de **Escobedo**

[10] Juan de Escobedo was the secretary of this illegitimate son of Charles V. This man violated the Perpetual Edict when he captured Namur during his time as Governor-General of the Netherlands.

ANSWER: Don **John** of Austria [Don **Juan** de Austria; or Ritter **Johann** von Oesterreich]

[10] John of Austria commanded the Holy League fleet at this battle, in which Ottoman forces were led by Ali Pasha. Miguel de Cervantes lost his arm at this battle.

ANSWER: Battle of **Lepanto** <O'Rourke>

3. Answer the following about pairs of characters in the plays of South African playwright Athol Fugard, for 10 points each.

[10] In Fugard's *The Island*, this Sophocles tragedy is staged by two black political prisoners.

ANSWER: **Antigone**

[10] Another Fugard play focuses on Sam and Willie, the two black servants of this seventeen-year-old. While this kid is away, Sam and Willie wax poetic about ballroom dancing.

ANSWER: **Hally** [or Master **Harold**]

[10] In this Fugard play, Elsa Barlow tries to get the eccentric recluse Miss Helen, who has filled the yard outside her house with sculptures, to move into a nursing home.

ANSWER: *The* **Road to Mecca** <Jackson>

4. This philosopher's late writings include *Essays in Radical Empiricism*, in which he defends "neutral monism." For 10 points each:

[10] Name this nineteenth-century American philosopher who proposed his "pragmatic theory of truth" in *Pragmatism*, a book compiled from his lectures.

ANSWER: William **James**

[10] In this essay, James argues that situations where the title concept is "forced" and "momentous" require people to make decisions on "preliminary faith" rather than scientific proof.

ANSWER: "The **Will to Believe**"

[10] This "neopragmatist" extended James's pragmatic theory of truth by denying that any "final vocabulary" of truth was close to an "absolute" truth. According to this philosopher, one who is skeptical of all "final vocabularies" is called an "ironist."

ANSWER: Richard **Rorty** <Bollinger>

5. In a memoir set at this location, the narrator divides its inhabitants into the Drowned and the Saved. For 10 points each:

[10] Name this setting of Primo Levi's *If This Is a Man*, a book alternately titled *Survival* in this place.

ANSWER: **Auschwitz** concentration camp [or Konzentrationslager **Auschwitz**]

[10] Elie Wiesel described his experiences in Auschwitz in this book, the first of a trilogy that includes *Dawn* and *Day*.

ANSWER: **Night** [or *La Nuit*; or *Un di Velt Hot Geshvign*]

[10] Georges Perec, whose mother died at Auschwitz, wrote this novel about Bartlebooth, who has his paintings of the world's harbors cut up so that he can reassemble them as jigsaw puzzles.

ANSWER: **Life**: *A User's Manual* [or *La Vie mode d'emploi*] <Sy>

6. This ballet's "Kingdom of the Shades" scene is an opium-induced dream that begins with several dozen women making their way down a winding ramp performing repeated arabesques. For 10 points each:

[10] Name this ballet set in India, a collaboration between Marius Petipa and Ludwig Minkus. In its final scene, Solor is reunited with his lover Nikiya when a collapsing temple takes his life.

ANSWER: La Bayadère [or Bayaderka; or The Temple Dancer]

[10] *La Bayadère's* "Kingdom of the Shades" scene also includes one of these dances for two performers. The "grand" variety of this dance is divided into five parts.

ANSWER: grand pas de deux

[10] The female dancer performs thirty-two consecutive fouettés (**fwee-TAYZ**) at the climax of the pas de deux in Act III of this Pyotr Ilyich Tchaikovsky ballet about Odette's transformation into the title bird.

ANSWER: Swan Lake [or Lebedinoye ozero] <Kim>

7. This goddess is summoned to destroy the irreverent and sinful humanity, but her wrath grows out of control until she is tricked into consuming 7,000 jugs of beer dyed to resemble blood. For 10 points each:

[10] Name this lion-headed Egyptian goddess who wakes up from her frenzy and marries Ptah.

ANSWER: Sekhmet

[10] Sekhmet is the creation of this sun god, who battles the serpent Apep each night. In later myths, this god was syncretized with Amun.

ANSWER: Ra [or Re]

[10] In his role as a sun god, this non-Egyptian deity is unable to properly illuminate the world due to his loss of a foot, and the humans of his world are eventually devoured by jaguars.

ANSWER: Tezcatlipoca [or Black Tezcatlipoca] <Kim>

Moderator note: please do not read the alternate answer to the first part.

8. The "new" one of these is centered around Viburnum, while the "old" one was first exploited in 1720 near Mine LaMotte. For 10 points each:

[10] Name this American mining region in which the Bonnetterre Formation features the highest concentration of galena ore in the world.

ANSWER: Lead Belt [accept, but do not reveal, Southeast Missouri Lead District]

[10] The Lead Belt is found in what Midwestern state, whose southern portion is covered by the Ozark Plateau?

ANSWER: Missouri

[10] This southeastern Missouri town, which was home to the Lead Belt's last remaining smelter until it closed in 2013, was named for an ancient Roman city destroyed by Mt. Vesuvius.

ANSWER: Herculaneum <White>

9. In photon upconversion, this quantity is negative. For 10 points each:

[10] Name this quantity that is the difference in wavelength between the maxima of the emission and absorption lines in a spectrum.

ANSWER: **Stokes shift** [prompt on **shift**]

[10] Raman scattering produces Stokes and anti-Stokes shifts because it is this type of scattering, in which the energy of the incident photon changes. Objects often stick together after this type of collision.

ANSWER: **inelastic** scattering [or **inelastic** collision]

[10] The Stokes shift is reported in either units of wavelength or wavenumber, where the wavenumber is usually expressed as one over this SI unit, which is equivalently called "inverse [this SI unit]."

ANSWER: **centimeter** [or **cm**] <Silverman>

10. This colony was founded by Peter Minuit but was later overrun by forces under Peter Stuyvesant, the Director-General of New Netherland. For 10 points each:

[10] Name this colony whose first settlement, Fort Christina, eventually became the city of Wilmington.

ANSWER: **New Sweden** [or **Nya Sverige**]

[10] New Sweden was established along the banks of this river, which was crossed by George Washington during a surprise attack on Trenton.

ANSWER: **Delaware** River

[10] Peter Minuit was killed during a hurricane while on a trading trip to this island. This island, home to a large fortress on Brimstone Hill, is part of a Caribbean country with an island whose name translates to "snows."

ANSWER: Saint **Kitts** [or Saint **Christopher**] <Golimlim>

11. Maxwell Montes lies on this planet's Ishtar Terra, one of two highland areas on its surface. For 10 points each:

[10] Name this planet once thought to be a tropical paradise due to the thick clouds of sulfuric acid obscuring its surface. It has a runaway greenhouse effect due to an atmosphere consisting of about 96.5% carbon dioxide.

ANSWER: **Venus**

[10] This Soviet program launched over a dozen probes to observe Venus. Its fourth installment was the first to transmit data on Venus's atmosphere, the seventh was the first to land on its surface, and the ninth was the first to take pictures from the planet's surface.

ANSWER: **Venera**

[10] Since Venus's magnetic field is not internally generated but rather induced by the interaction of the solar wind with its upper atmosphere, the ESA was quite surprised to find evidence of reconnection in this region of Venus's magnetosphere. This region of a magnetosphere is opposite where the solar wind compresses the magnetosphere and extends far beyond a body.

ANSWER: **magnetotail** <Lee>

12. These features are kept safe by an "intricate . . . network of voluntary controls" enforced by the people themselves. For 10 points each:

[10] Name these geographic features described as crucial to urban safety in a 1961 book that mentions their "intricate ballet." These features promote overall safety by supporting greater surveillance and personal interactions.

ANSWER: **sidewalks**

[10] That book that praises sidewalks is *The Death and Life of Great American Cities*, a work by this female urban theorist and critic of New York's urban-planning policies.

ANSWER: Jane **Jacobs** [or Jane **Butzner**]

[10] Jacobs lived in this neighborhood in Manhattan, which she defended from urban-renewal attempts. It was a major capital of the Beat and Bohemian countercultures during the 1950s and 1960s.

ANSWER: **Greenwich Village** [prompt on The **Village**] <Cheyne>

13. In a review of this collection, Herman Melville argued that it was characterized by a "blackness of darkness" and that its "bright gildings but fringe and play upon the edges of thunder clouds." For 10 points each:

[10] Name this collection of haunting stories that includes "The Birthmark," "Rappaccini's Daughter," and "Young Goodman Brown." This collection was written while its author and Sophia Peabody were renting Ralph Waldo Emerson's home.

ANSWER: ***Mosses from an Old Manse***

[10] This author of *The Scarlet Letter* collected many of his best-known stories in *Mosses from an Old Manse*.

ANSWER: Nathaniel **Hawthorne**

[10] In this story from *Mosses from an Old Manse*, Reuben Bourne accidentally kills his son in the same spot where he once left his father-in-law to die according to that father-in-law's own wishes.

ANSWER: "**Roger Malvin's Burial**" <Bollinger>

14. Answer the following about cattle drives in late nineteenth-century America, for 10 points each.

[10] These vehicles contained a small container on the back so cowboys could store food on long cattle drives. Their name is an allusion to their inventor, Charles Goodnight.

ANSWER: **chuck wagon**

[10] Many cattle drives ended in this state's settlement of Dodge City. This was the home state of Stanley Ann Dunham as well as Dwight Eisenhower, the latter of whom grew up in Abilene.

ANSWER: **Kansas**

[10] This inventor from DeKalb, Illinois, won a lawsuit over his alleged invention of barbed wire, which he made using a coffee mill and patented in 1874. His mass production of barbed wire was a large shock to the cattle industry.

ANSWER: Joseph **Glidden** <Jackson>

15. The first and second "families" of bestiaries, as defined by Cambridge scholar M.R. James, derive in part from this book. For 10 points each:

[10] Name this massively influential seventh-century encyclopedia that compiles numerous classical sources on such topics as the trivium and quadrivium, as well as on its namesake lists of terms.

ANSWER: **Etymologiae** [or *The **Etymologies***; or **Origines**]

[10] Saint Isidore, the compiler of the *Etymologiae*, was the archbishop of this southern Spanish city on the Guadalquivir River. The Alcazar Palace is found in this largest city of Andalusia.

ANSWER: **Seville** [or **Sevilla**]

[10] Book V of the *Etymologiae* discusses ancient Roman laws as described in the *Breviary* of a Visigothic king of this name. A much more famous predecessor of the same name led the 410 sack of Rome.

ANSWER: **Alaric** II [or **Alaric** I] <Yu>

16. The author of this essay exhorts the reader "never to pay any attention to his understanding when it stands in opposition to any other faculty of his mind." For 10 points each:

[10] Name this essay whose author, prompted by an unsettling scene from a tragedy, suggests throwing a "sympathy of comprehension" upon the murderer in a crime in order to look into his personal hell.

ANSWER: "**On the Knocking at the Gate in Macbeth**"

[10] This author of "On the Knocking at the Gate in Macbeth" described his daily usages of the drug laudanum in *Confessions of an English Opium-Eater*.

ANSWER: Thomas **de Quincey**

[10] In *Confessions of an English Opium-Eater*, de Quincey refers to this author's observation that it is extremely difficult to do anything for the last time. A novel by this writer follows the title "Prince of Abissinia" in his escape from a beautiful valley.

ANSWER: Samuel **Johnson** [or Doctor **Johnson**] <Sy>

17. This prefix results from eliding the vowel "i" from the word oni and is followed by the root word orun, meaning "sun" or "heaven," in the name of a particular deity. For 10 points each:

[10] Name this two-letter prefix meaning "owner" that also precedes the roots odu, meaning "chief" or "receptacle," and ofi, or "law," in the names of the other two manifestations of the Supreme God of the Yoruban pantheon.

ANSWER: **ol**

[10] This son of Olorun clashed with his younger brother Oduduwa over the right to create land, eventually losing after getting drunk off of palm wine. He was later given dominion over the heads, or ori, of mortals, becoming the first orisha.

ANSWER: **Obatala** [or **Ochala**; or **Orichala**; or **Oxala**; or **Orixala**]

[10] Oduduwa's son Oranmiyan founded the Oyo Empire of this country after leaving its ancient city of Ile-Ife.

ANSWER: **Nigeria** <Smart>

18. The DSSP program uses information on backbone dihedral angles and hydrogen-bond parameters to identify subtypes of this classification. For 10 points each:

[10] Name this classification of protein structure most commonly represented with alpha helices and beta strands. This designation denotes a protein's 3D form but is not defined by its atomic coordinates, unlike tertiary structures.

ANSWER: **secondary** structures

[10] Proteins with many repeating units of this amino acid may form a namesake type of repetitive helix. This amino acid is unique in that its side chain rejoins the terminal amine in its backbone.

ANSWER: **proline** [or **P**]

[10] This nonrepetitive secondary protein structure is subdivided into beta, gamma, and tight types and results from sites where the peptide chain reverses direction.

ANSWER: **turns** <Smart>

19. A rendition of this painting sold for a record-breaking 179 million dollars at an auction in May 2015. For 10 points each:

[10] Identify this 1834 painting subject to fifteen reinterpretations labeled "Version A" to "Version O," which were produced shortly after the death of Henri Matisse. In the original of this painting, two walls of a room are decorated with a print of a flower vase and Arabic calligraphy.

ANSWER: *The **Women of Algiers** in Their Apartment* [or ***Femmes d'Alger** Dans Leur Appartement*]

[10] This artist of *The Women of Algiers* series painted five nude prostitutes, some of which have faces resembling African masks, in *Les Demoiselles d'Avignon*.

ANSWER: Pablo **Picasso** [or Pablo Diego Jose Francisco de Paula Juan Nepomuceno Maria de los Remedios Cipriano de la Santisima Trinidad Ruiz y **Picasso**]

[10] Picasso also reinterpreted a painting of these people by Jacques-Louis David set in the backdrop of the Tarpeian Rock. In that painting, these people place their bodies in between two groups of shield- and spear-wielding soldiers.

ANSWER: **Sabine Women** [accept Rape of the **Sabine Women**; accept Intervention of the **Sabine Women**] <Golimlim>

20. Philippe de Vitry coined the name for this period in a treatise on dividing semibreves into minims and grouping rhythm using duple meter rather than triple meter. For 10 points each:

[10] Name this period of French medieval music that saw the abandonment of the rhythmic modes used by the Notre Dame school in favor of the isorhythm championed by Vitry and Guillaume de Machaut.

ANSWER: **Ars Nova** [or **New Art**]

[10] Machaut composed the first complete setting of this Roman Catholic liturgy traditionally divided into the Kyrie, Gloria, Credo, Sanctus, and Agnus Dei. Its Requiem variety is frequently performed for the dead.

ANSWER: **Masses** [or **Missa**; or **Messe**; or **Requiem Mass**]

[10] Machaut wrote many of these sacred pieces featuring multiple texts sung over a cantus firmus. More modern examples include Wolfgang Amadeus Mozart's *Ave verum corpus*.

ANSWER: **motets** <Kim>

21. In this novel, General Canales's wife, Fedina, is sent to prison, where her newborn baby dies in her arms. For 10 points each:

[10] Name this novel in which the title dictator is advised by Miguel Angel Face, who falls for Canales's daughter, Camila.

ANSWER: *El **Senor Presidente*** [or ***Mister President***]

[10] This Guatemalan Nobel Laureate wrote *El Senor Presidente*, basing the title character on Manuel Estrada Cabrera.

ANSWER: Miguel **Asturias** [or Miguel Angel **Asturias**]

[10] In the novel, General Canales is accused of killing Colonel Sonriente, who is actually killed by this mentally disabled beggar. The only happiness in the life of this character comes from his memories of his mother.

ANSWER: The **Zany** <Sy>