**2019 National All-Star Academic Tournament**

**Round 3 – Tossups**

1. In *Doctor Faustus*, a character cites a poem about this animal before declaring “I can creep in to every corner of a wench.” That poem was likely written by the medieval poet Ofilius Sergianus but was long attributed to Ovid. The double entendre in the third line of a poem about this animal is less obvious than when it was originally published because “s” and “f” are no longer typographically similar. That poem about this animal states “w'are met / And cloister'd in these living walls of jet.” A man remarks that “Just so much honor, when thou yield'st to me, / Will waste” after a woman “purple[s]” her nail by killing this animal in a poem that begins “Mark but [this animal], and mark in this.” This animal is the conceit of a poem in which “our two bloods mingled be.” For 10 points, name this animal that “sucked me first, and now sucks thee” in a poem by John Donne.
ANSWER: **flea**
*<Literature British Non-Shakespeare - French>*

2. A diary of this conflict by Johann Ewald was discovered by troops in occupied Germany following World War II. The English historian William Gordon developed the “Whig School” of scholarship about this conflict. Bernard Bailyn's book on *The Ideological Origins of [this conflict]* argues that it was driven by traditions of radicalism. Bailyn was opposed by a group of historians known as the “Consensus,” led by Daniel Boorstin, who argued that this conflict was fundamentally conservative in nature. One of the first histories of this war was written by Mercy Otis Warren. Historians such as David McCullough have been criticized for fostering a notion of “chic” around people who fought in this conflict. One pamphlet written during this conflict begins “these are times that try men's souls.” For 10 points, name this conflict during which Thomas Paine's *Common Sense* was published.
ANSWER: **American Revolution** [accept **Revolutionary** War, American **War of Independence**, or **American** War]
*<History American (pre-1865) - Myers>*

3. Datalog is primarily used to instantiate these things on systems capable of making “deductions.” Patricia Selinger popularized a dynamic programming solution to cost estimation to optimize access path selection while processing these things. Cypher and Gremlin are two popular languages that allow utilizing these statements with graphs. The Algebrizer binds these statements, which are broken down into various steps in an execution plan. A popular library that allows one to manipulate the JavaScript Document-Object Model shares its name with these statements. The efficiency of these statements can be significantly affected by their join order. “SELECT \* **(“star”)** from table” is an example of one of these statements. For 10 points, a request from a database is known by what name, represented by the letter “Q” in the structured language SQL?
ANSWER: **query** [or **queries**; or j**Query**]
*<Science Computer Science - Keyal>*

4. One of these objects is depicted at various locations along the central register of the alabaster sarcophagus of Seti I, accompanying the text of the *Book of Gates*. A ritual at Abydos involved one of these objects belonging to Nun called the *Neshmet*. Amun's statue was placed on one of these objects during the Feast of Opet. Wax models of these objects were ritually mutilated to ensure that one of these objects could successfully pass through each of the twelve sections of Duat. That one of these objects was referred to as the *Mandjet* or the *Meseket*, depending on the time of day. Before a race with Set, Horus painted a wooden one of these objects to resemble stone. Deities such as Sia, Hu, and Heka helped defend the journey of one of these vehicles against the serpent Apophis. For 10 points, Ra traversed the sky in a “solar” example of what vehicle?
ANSWER: **boat** [accept **ship**; accept synonyms like **barque** or **barge**; prompt on sun by asking “what object represents the sun?”]
*<RMP Non-Greek/Roman Myth - French>*

5. Two of the US's primary sources of this good are located beneath Detroit and Cleveland. Kanawha, West Virginia was founded where wild animals congregated around a large source of this good. It's not dirt, but Cobalt-60 nuclear weapons are nicknamed for this good. The founder of Arbor Day was the heir to a company that produced this good. Tabasco sauce originated at a center for producing this substance at Avery Island, Louisiana. The sculpture “Spiral Jetty” was built on one lake named for this substance. Several land speed records were set at a location named for this substance in Bonneville, Utah. For 10 points, name this good produced by Morton that is the namesake of a lake that lends its name to the capital of Utah.
ANSWER: **salt**
*<Geography US - Myers>*

6. Bartolommeo Fazio described a now-lost “Bathing Scene” that this artist painted while in Genoa. This painter depicted the Virgin Mary enthroned in an ornate, gothic-style niche in his *Thyssen Madonna*. Erwin Panofsky called a painting by this artist that is now in the Museo del Prado a “painted critique” of a painting by his teacher, the Master of Flémalle. In a painting by this artist, a man with a black headdress and an ornate cloth-of-gold robe stares across the title action at the skull of Adam, which is on the ground. This student of Robert Campin painted a body held in the shape of a crossbow in a commission for the Leuven guild of archers. In that painting by this artist, Mary swoons as Nicodemus and Joseph of Arimathea lower the body of Christ. For 10 points, name this early Flemish painter of *The Descent from the Cross*.
ANSWER: **Rogier** van der Weyden [or Rogier **van der Weyden**]
*<Arts Painting - French>*

7. Hydroxamic acid undergoes this type of reaction in the presence of tosylchloride and sodium hydroxide. It's not hydrolysis, but in the cumene process, cumene hydroperoxide undergoes a reaction of this name to produce phenol and acetone. 1,5 dienes undergo this type of reaction with the addition of heat. In Mass-Spec, ion fragments containing a ketone can undergo this type of reaction. Bullvalene constantly undergoes a reaction of this type named for Cope, which is why bullvalene is classified as fluxional. Sigmatropic reactions are one subclass of this broader class of non-condensation reactions, two of which are named for Claisen and McLafferty. Carbocations **(carbo-CAT-eye-ons)** undergo a simple type of this reaction involving methyl and hydride shifts. For 10 points, name this type of reaction that yields a structural isomer.
ANSWER: **rearrangement**s [accept **Lossen rearrangement** accept **Hock rearrangement**; accept **Cope rearrangement**; accept **McLafferty rearrangement**; accept **carbocation rearrangement**; prompt on [3,3] sigmatropic reaction; prompt on Hock; prompt on Cope; prompt on McLafferty]
*<Science Chemistry - Etzkorn>*

8. In *Thinking and Being*, Irad Kimhi argues that the psychological, logical, and ontological principles rejecting these things are the same principle. Australian philosopher Graham Priest is best known for asserting that these things really exist, a position he named “dialetheism.” The law of the excluded middle and law of identity form the “three laws of thought” with a principle which forbirds these things. In Hegelian dialectics, these things are “sublated” in the formation of a synthesis. A consistency proof demonstrates that these states cannot be derived from a given formal language. The “Principle of Explosion” states that anything can be derived from these things. These things name a method that shows that the negation of a postulate entails one of these things. For 10 points, name this state that arises from the simultaneous assertion of a statement and its negation.
ANSWER: **contradiction** [prompt on paradox]
*<RMP Philosophy/Thought - Marvin>*

9. Before one battle in this modern country, the leader of the losing side performed a mounted war dance in which he threw his javelin into the air and caught it multiple times. While on campaign in this modern country, one general who replaced Bessas wrote a letter to the opposing leader credited with stopping him from sacking the largest city in this modern country. One king in this modern country, Witigis, was killed before a Frankish invasion of this modern country. King Totila was defeated at the Battle of Busta Gallorum in this modern country, where Narses supervised the construction of a series of forts. The last Byzantine stronghold in this modern country was occupied by Robert Guiscard in 1071 at the Siege of Bari. An invasion led by Belisarius defeated the Ostrogoth and Lombard kingdoms in this modern country. For 10 points, name this modern country where Byzantine exarchs ruled cities like Ravenna.
ANSWER: **Italy** [accept **Italia**]
*<History European to 1400 - Myers>*

10. *Description acceptable.* In the musical *Assassins*, John Wilkes Booth quotes a line spoken by this character when he convinces Lee Harvey Oswald to shoot John F. Kennedy. This character pleads “forgive me… I can't cry” at the beginning of a speech in which she *does* cry after realizing “I made the last payment on the house today… And there'll be nobody home.” This woman admits that her husband is not a “great man,” but she asserts “he's a human being, and a terrible thing is happening to him. So attention must be paid.” In the play in which she appears, this woman's son witnesses her husband cheating on her with an unnamed woman, leading him to drop out of summer school. This woman sobs “We're free… We're free…” in the scene “Requiem,” which portrays her husband's funeral. For 10 points, name this woman, the mother of Biff and Happy and wife of the protagonist of *Death of a Salesman*.
ANSWER: **Linda** Loman [accept **Willy** Loman's **wife** or **Mrs. Loman**; prompt on Loman]
*<Literature American - French>*

11. Since modern horns no longer require hand-stopping for key changes, it is now rare for the recapitulation of this symphony's first movement to be introduced by the bassoons as indicated in the score. A legend suggests that part of this symphony was inspired by a yellowhammer bird. This symphony borrows from the overture to *Eliza*, but it is less certain that it references Luigi Cherubini's *Hymne au Pantheon*. The second theme of the exposition in its opening is played in E-flat, the relative major, by a pair of French horns. This piece's original title, “Destiny,” is no longer used. The codetta to the first movement of this symphony references the two fortissimo phrases that open this symphony in C minor, the first of which, played by clarinets and strings, is the phrase **(read slowly)** “G G G long E flat.” For 10 points, name this symphony with a “fate knocking at the door” motif by Ludwig van Beethoven.
ANSWER: Symphony No. **5** by Ludwig van **Beethoven** in C minor [or **Beethoven's Fifth**; accept just **5** or **Fifth** after “Beethoven” is read]
*<Arts Music - Smith>*

12. *Two answers required.* These two quantities are remapped to a true form of one of these quantities **(pause)** and the extension ratio in the Considère **(con-see-DAYR)** construction. The nonlinear relationship between these two quantities is modeled with three parameters by the Ramberg-Osgood equation. The maximum energy named for one of these quantities occurs at critical values for the second deviatoric invariant named for the other, according to the von Mises criterion. The relationship between these two quantities drops off beyond the yield point where necking and drawing can occur, as can be seen on a namesake engineering curve of these two quantities. In the linear regime, the ratio of these two quantities is equal to Young's modulus. For 10 points, name these two quantities which measure internal forces between neighboring particles and the deformation those forces cause.
ANSWER: **stress** and **strain** [accept in either order]
*<Science Physics - Etzkorn>*

13. The essay “The Face of Seung-Hui Cho” was published in a collection whose name parodies that of this book. That collection was written by Wesley Yang. On the advice of Jacob Schiff, six passages of this book that referred disparagingly to Jews were changed for later editions. This book includes a parable about two different men named John returning to their hometowns, and each chapter of this book opens with a sheet-music selection from spirituals it refers to as “sorrow songs”. One chapter of this book compares Atalanta's distraction by golden apples to Atlanta's pursuit of capital over learning. This essay collection discusses slave religion in “Of the Faith of the Fathers”. The concepts of “the veil” and “double consciousness” recur in this essay collection, which contains an essay attacking its author's rival, Booker T. Washington. For 10 points, name this essay collection by W. E. B. Du Bois.
ANSWER: *The* ***Souls of Black Folk*** [accept *The* ***Souls of Yellow Folk***]
*<Literature American - Myers>*

14. This musical's most popular song inspired Ruben Blades **(BLAH-days)** and Willie Colon's “Pedro Navaja.” Another song in this musical claims that “man is kept alive by bestial acts” after declaring “food is the first thing, morals follow on.” This musical includes “What Keeps Mankind Alive?” alongside a song in which a woman “scrubbin' the floor while you're gawking” sings about the Black Freighter. Such names as Lotte Lenya, Sukey Tawdry, and Jenny Diver are often listed in a song from this musical that compares the pearly whites of a shark to the singer's jackknife. A signature of Bobby Darin was that “moritat,” which joined its “Pirate Jenny” as a jazz standard after Marc Blitzstein anglicized their lyrics. This musical was adapted from a ballad opera by John Gay. For 10 points, name this Kurt Weill musical about Polly Peachum and Macheath, which features lyrics by Bertolt Brecht.
ANSWER: *The* ***Threepenny Opera*** [or ***Die Dreigroschenoper***]
*<Arts Opera - Smith>*

15. In Lee Breuer's adaptation of this play, all the men are played by actors shorter than four feet. An essay about this play compares its title character to the Tang dynasty poet Li He, who on his deathbed claimed that he had been summoned to write a poem for the Emperor of Heaven. At the end of this play, a “flash of hope” inspires a man to ask, “the most wonderful thing of all—?” That man earlier scoffs “no man would sacrifice his honour for the one he loves.” An essay by Lu Xun and a play by Elfriede Jelinek both explore what will happen after this play's final scene. In this play, a woman is given diminutive nicknames such as “my little song-bird” and is told to await a letter marked with a black cross. That woman is blackmailed for forging her father's signature by the bank employee Krogstad. For 10 points, name this play about Nora Helmer by Henrik Ibsen.
ANSWER: *A* ***Doll's House***
*<Literature European - French>*

16. At the end of Isaiah 44, God compares Cyrus the Great to this profession and declares that he “will accomplish all that I please.” In Ezekiel 34, God orders Ezekiel to prophesy against the religious leaders of Israel, who are analogized as unfaithful members of this profession. The prophet Amos saw his first vision while working in this profession at Tekoa. A man experienced a miracle involving poplar tree branches placed in water while working in this profession for Laban **(“LAY-bun”)**. Abel worked in this profession. In 1 **(“first”)** Samuel, a boy received a chance to fight against an enemy warrior by recounting fighting off lions and bears while working in this profession. Psalm 23 compares God to this profession and declares “I shall not be in want.” For 10 points, name this profession held by several men who witnessed the birth of Jesus.
ANSWER: **shepherd**
*<RMP Christian/Bible Religion - Suh>*

17. The Russian-born anarchist Simon Radowitzky bombed the carriage of a federal chief of police in this city in 1909. The Revolution of the Park in this city was one of the founding events of the Radical Civic Union party. This city's Goethe-Schule helped develop a German-based mixed language, and the Lunfardo language developed in this city's Italian neighborhoods. This city's Israelite Mutual Association was the target of a 1994 bombing likely sponsored by the Iranian government. Members of the *montonero* faction were killed in the Ezeiza Massacre at an airport outside this city. The Plaza de Mayo was the site of protests in this city by mothers of people who “disappeared” during its country's Dirty War. For 10 points, name this city whose underclass, the *descamisados*, were championed by Eva Peron.
ANSWER: **Buenos Aires** [accept **B.A.**]
*<History World - Jackson>*

18. This substance can activate BLUF domains in bPAC, which in turn modulates cAMP. Proteins sensitive to this substance have bistable and step function varieties. Patients who experience SU, due to an allergic reaction with this substance, are not good candidates for PUVA treatment, since PUVA uses this substance; that form of urticaria is similar to a polymorphous eruption caused by this substance. Opsins are a class of proteins sensitive to this substance, which rely on a mechanism that switches a molecule from its 11-cis form to its all-trans isomer. Because this substance dimerizes thymine base pairs, mutations in DNA repair proteins can cause skin disfiguration in those suffering from xeroderma pigmentosum. Prolonged exposure to this substance is the primary cause of melanoma. For 10 points, name this substance used by plants to convert carbon dioxide and water into sugars.
ANSWER: ultraviolet **light** [accept **photon**s; accept **ultraviolet**; accept **UV**; prompt on radiation by asking “What's responsible for the radiation?”]
*<Science Biology - Etzkorn>*

19. Arguing against this one of this viewpoint's central concepts will always result in a performative contradiction, according to one theorist's “argumentation ethics.” That thinker's mentor co-created the title-transfer theory of contracts popular among this philosophy's adherents. “Catallactics” is often included among the subdivisions of a practice that a third proponent of this philosophy expounded in *Human Action*. A book promoting this philosophy includes a thought experiment in which one million people give 25 cents each to Wilt Chamberlain. Hans-Herman Hoppe promotes a version of this philosophy created by Murray Rothbard. Followers of this ideology practice a brand of praxeology created by Ludwig von Mises and adhere to the non-aggression principle. For 10 points, name this economic philosophy promoted by Robert Nozick that centers on extreme laissez-faire policy to maximize political freedom.
ANSWER: Austro-**libertarian**ism [accept **Austrian** School, **paleolibertarian**ism, **minarchism**, or **anarcho-capitalism**; prompt on laissez-faire before mention]
*<Social Science Economics - Smith>*

20. Bob Shrum published an article before this election alleging that the losing presidential and vice-presidential candidates had stopped speaking to each other. In the aftermath of this election, a map was produced that divided the US into “the United States of Canada” and “Jesusland” based on its results. One primary candidate in this election lost support after shouting “EEYAH!” at a campaign rally. The term “swift boat” entered the political lexicon during this election after a series of ads attacking the losing candidate's service record. Another advertisement in this election showed the losing candidate windsurfing. This election's loser, who defeated a primary challenge by Howard Dean, had been a leader of Vietnam Veterans Against the War, but took an ambivalent stance on the war in Iraq as a Massachusetts senator. For 10 points, name this election in which George Bush defeated John Kerry.
ANSWER: US Presidential Election of 20**04**
*<History American (1945-present) - Myers>*

21. Threads made of this material wrap around two naked women in two paintings both titled *Water Serpents*. A grotesque face sticking out its tongue is depicted on a gorget made of this material in a portrait of an ambiguously gendered *Pallas Athene*. That artist did *not* use this material in his work *Death and Life*, ending his decade-long “phase” named for this material. This material decorates a portrait of a woman with a choker who holds a decapitated head at her side, half out of frame. This material makes up most of a dress decorated with almond-shaped eyes in a portrait of an industrialist's wife. In a 1908 painting, most of the clothes of a couple embracing at the edge of a meadow were depicted using this material. For 10 points, name this material that Gustav Klimt use to decorate his *Portrait of Adele Bloch-Bauer* and *The Kiss*.
ANSWER: **gold** leaf [accept “**gold**en phase”]
*<Arts Painting - French>*

**2019 National All-Star Academic Tournament**

**Round 3 – Bonuses**

1. This peptide's interaction with the paraventricular nucleus has been shown to stimulate corticotropin releasing hormone. For 10 points each:
[10] Name this 36 amino acid peptide that, like AgRP and CART, is synthesized in the arcuate nucleus. It is a powerful appetite stimulant.
ANSWER: **neuropeptide Y** [or **NPY**]
[10] Neuropeptide Y release is regulated by these two hormones, which act in opposition to each other. High fat amounts lead to the production of one of these hormones, while an empty stomach will lead to the production of the other.
ANSWER: **leptin** and **ghrelin** [accept in either order]
[10] Leptin resistance can lead to this condition of having too much body fat, which is often studied in mice.
ANSWER: **obesity** [prompt on being overweight or similar answers]
*<Science Biology - Shanmugam>*

2. This theorist argued for a democratic model of the title institution in *Communism and the Family*. For 10 points each:
[10] Name this theorist who served as Commissar of Social Welfare before the Soviet Family Code of 1926 marked a retreat from her ideas.
ANSWER: Alexandra **Kollontai**
[10] This woman co-founded an anti-war organization with Karl Liebknecht. This anarchist published her theories in *The Accumulation of Capital*.
ANSWER: Rosa **Luxemburg**
[10] This leader attacked Kollontai for suggesting sex education rather than hiking and gymnastics lessons as ways to deal with the USSR's rates of teenage sex. Luxemburg criticized this leader for his authoritarianism following the October Revolution.
ANSWER: Vladimir Ilych **Lenin** [accept Vladimir Ilyich **Ulyanov**]
*<History European 1914-present - Myers>*

3. In 1480, Gentile Bellini produced a portrait of one of these people smelling a rose. For 10 points each:
[10] Name these people who were often depicted wearing caps called *taj* and sniffing tulips. Twelve of these people were depicted in the *Sema'ilname* **(seh-mah-eel-na-may)**.
ANSWER: **Ottoman Sultan**s [accept **Ottoman Emperor** or ***Kayser-i-Rum***; prompt on sultan, imperator, and emperor by asking “of which empire?”]
[10] Nakkas Osman, the artist of the *Sema'ilname*, was the most important painter in this genre, for which he was nicknamed. The Ottoman Empire was a center of production in this genre, which was frequently used to illustrate works like *Layla and Majnun*.
ANSWER: **miniature** [accept **tasvir** or **nakkas**]
[10] Italian painters drew from Ottoman imagery to depict this country. Renaissance painters such as Giotto and Titian painted scenes depicting the “flight” of Mary, Joseph, and Jesus from Herod into this county.
ANSWER: **Egypt** [accept **Misr**]
*<Arts Painting - Myers>*

4. Answer the following about the work of Lewis Binford. For 10 points each:
[10] Binford helped develop the processual form of this field, which he argued was a type of anthropology. This field's practitioners study material remains and artifacts to make inferences about human society.
ANSWER: **archaeology** [accept new **archaeology**]
[10] Binford developed type of theory's application to archaeology while studying the Nunamiut or Alaska. This type of theory attempts to integrate empirical evidence into theory building by observing patterns of waste production by modern people, which is extended to past groups.
ANSWER: **middle**-range theory [accept **middle-level** theory, answers in which **mid** is given rather than **middle**]
[10] Binford borrowed the term middle-range theory from this sociologist, who is perhaps more famous for coining such terms as “role-model” and “self-fulfilling prophecy” in books like *Social Theory and Social Structure*.
ANSWER: Robert King **Merton** [accept Meyer Robert **Schkolnick**]
*<Social Science Misc - McLain>*

5. Legendarily, Richard Huelsenbeck chose the name for this movement by sliding a paper knife into a dictionary. For 10 points each:
[10] Name this movement whose fouding adherents frequented the Cabaret Voltaire. Huelsenbeck selected a French colloquialism for “hobbyhorse” as the name for this anti-art movement.
ANSWER: **Dada**ism
[10] This man co-founded the Cabaret Voltaire with Emmy Hennings and wrote the first manifesto for the Dada movement. He wrote “jolifanto bambla o falli bambla” to open his best-known piece, the sound poem “Karawane”.
ANSWER: Hugo **Ball**
[10] Dadaist literature was heavily inspired by Alfred Jarry's plays starring this character. This character becomes a king in a Jarry play that begins with the nonsense word “Merdre!”
ANSWER: **Ubu** Roi [or Père **Ubu**; or Pa **Ubu**; Papa **Ubu**; or Father **Ubu**; or King **Ubu**; or **Ubu** Roi; or King **Turd**]
*<Literature European - Smith>*

6. While touring a dig site led by this man, Agatha Christie met her second husband, his assistant Max Mallowan. For 10 points each:
[10] Name this British archaeologist who inspired Christie's novel *Murder in Mesopotamia* by discovering a Royal Cemetery. He also uncovered the Standard of Ur during his 1922-1934 excavation of the city.
ANSWER: Sir Leonard **Woolley**
[10] Woolley's team uncovered a “Great” example of these structures in Ur. Thirty-two of these step pyramids have been found in Mesopotamia.
ANSWER: **ziggurat**s
[10] The Great Ziggurat of Ur was restored by this first known archaeologist and last king of the Neo-Babylonian empire, who lost to Cyrus the Great at Opis. His son Belshazzar ruled while he spent ten years in Tayma.
ANSWER: **Nabonidus** [or **Nabû-naʾid**]
*<History World - Smith>*

7. Name some things about mathematical techniques that aren't quite rigorous. For 10 points each:
[10] Édouard Lucas and James Sylvester studied this sequence by pretending its subscript was an exponent on an “umbral” variable and then moving the exponent back down later. That “umbral calculus” often provided true results, since this sequence satisfies a summation formula similar to the binomial theorem.
ANSWER: sequence of **Bernoulli** numbers
[10] Treating ratios of differentials, like “dy/dx” **(“d” “y” over “d” “x”)**, as actual fractions provides a simple “proof” of techniques like this one, which is used to find the derivative of expressions like f(g(*x*)) **(“f” of “g” of “x”)**.
ANSWER: **chain rule**
[10] Apocryphally, Shizuo Kakutani skipped over a proof in class by asserting this statement, a common staple of textbooks and lazy papers. When Kakutani was unable to give an actual proof, he looked up the original paper, only to find that the author had omitted the proof using this statement as well!
ANSWER: the proof is trivial and is left as an **exercise** to the reader [accept any answers indicating that the reader should prove the statement themselves, prompt on answers indicating that it is trivial or obvious] [The author of the paper was Shizuo Kakutani.]
*<Science Math - French>*

8. This symphony's third movement opens with a *cantilena* from unison violins before a solo oboe plays trills over the high strings. For 10 points each:
[10] Name this symphony. Its first movement ends with a “duel” between two timpanists playing portamento.
ANSWER: “The **Inextinguishable**” [or *Det* ***Uudslukkelige***; or Symphony No **4** by Carl **Nielsen**; prompt on just Symphony No 4]
[10] Carl Nielsen, the composer of “The Inextinguishable” symphony, is from this country. August Bournonville was the longtime ballet master of its Royal Ballet.
ANSWER: Kingdom of **Denmark** [or *Kongeriget* ***Danmark***]
[10] Nielsen's Wind Quintet includes an optional low A playable by attaching a low A bell to this already low-pitched instrument. Typically, to reach such low notes as a singular B2 in “The Inextinguishable,” this double-reed woodwind's “contra” cousin is used.
ANSWER: **bassoon** [or **fagot**to]
*<Arts Music - Smith>*

9. People of this profession are kept out of politics in Mali because of their perceived ability to manipulate the supernatural force of *nyama*. For 10 points each:
[10] Name this profession that is charged with producing spiritual objects such as *boli* and *CiWara*, as well as a rod used by a mythical king to stand up after recovering from being crippled.
ANSWER: black**smith**s [accept **nyamakalaw**, prompt on **artist** or **craftsman**, or similar answers]
[10] The force of *nyama* is often analogized to this concept in Chinese folk religion, an animating force that is manipulated in a martial art whose name consists of this word followed by “gong.”
ANSWER: **qi** [accept **ch'i**]
[10] As part of a broader campaign against African religious practices, this colonial power destroyed many Malian religious relics. The Cult of the Supreme Being originated in this European country.
ANSWER: **France**
*<RMP Non-Christian/Bible Religion - Myers>*

10. This author wrote about the librarian Sipho Makhaya in his play *Nothing but the Truth*. For 10 points each:
[10] Name this actor and playwright. This member of the Serpent Players recounted being called a “terrorist” for playing Othello in Janet Suzman's 1987 production of that play in his essay “Apartheid and *Othello*.”
ANSWER: John **Kani**
[10] John Kani is an actor from this country. B. B. Mdledle, another author from this country, translated *Julius Caesar* into Xhosa.
ANSWER: Republic of **South Africa**
[10] South African playwright Welcome Msomi wrote *uMabatha*, a Zulu adaptation of this Shakespeare play. In *uMabatha*, three Sangoma replace a trio in this play that utter the phrase “fair is foul and foul is fair.”
ANSWER: **Macbeth**
*<Literature Shakespeare - French>*

11. This clause's “dormant” form prohibits state laws which place an undue burden on the interstate form of a certain activity. For 10 points each:
[10] Name this clause in Article I, Section 8 that gives congress the power to regulate the namesake activity between states and with foreign nations.
ANSWER: **commerce** clause
[10] The power of the commerce clause was dramatically increased by this case, in which the Supreme Court ruled that Congress could regulate activities which indirectly affected commerce. This case established the New Deal's Agricultural Adjustments Act as constitutional.
ANSWER: ***Wickard*** *v.* ***Filburn*** [accept either]
[10] In this Marshall court case, overlapping state and federal concessions for operating steamboat lines led the court to define the word “among” in the Commerce clause more strictly. It is considered one of the foundations of Commerce Clause jurisprudence.
ANSWER: ***Gibbons*** *v.* ***Ogden*** [accept either]
*<History American (1865-1945) - Mitchell>*

12. This quantity is defined as one half times the sum over each species of the concentration of the species times the square of species' charge. For 10 points each:
[10] Name this quantity, which measures the total concentration of electrolytes in a solution. The square-root of this quantity appears on the right hand side of the Debye-Hückel equation, which is valid if this quantity is sufficiently small.
ANSWER: **ionic strength**
[10] The Debye-Hückel equation is an equation for this quantity. This *factor* multiplies the concentration of a species to derive a similarly-named quantity that measures its “effective concentration.”
ANSWER: **activity coefficient** [do not accept “activity”]
[10] At 25 degrees Celsius, the constant in the Debye-Hückel equation is equal to .51 **(“point five one”)** when the solvent is this substance. This polar molecule is called the “universal solvent.”
ANSWER: **water** [or **H2O** or **dihydrogen monoxide**]
*<Science Chemistry - French>*

13. Answer the following about Medieval Japanese philosophy. For 10 points each:
[10] This philosopher advocated for the use of Zazen meditation to achieve enlightment. This founder of the Soto sect of Zen also wrote *The Treasury of the True Dharma Eye* and argued that virtue is practiced inwardly and expressed outwardly.
ANSWER: **Dogen** Zenji [or **Dogen** Kigen]
[10] Unlike most adherents of Zen philosophy, Dogen de-emphasized the importance of these puzzling statements used during meditation. Examples of these statements include “what is the sound of one-hand clapping” and “if you meet the Buddha on the road, kill him.”
ANSWER: **koan**s
[10] According to Dogen, to study *this thing* is to forget *this thing* which leads to enlightenment of the universe. David Hume argued that this thing does not exist via his “bundle theory,” which resembles the Buddhist formulation of this thing.
ANSWER: the **self** [accept **I** or **myself** or **personal identity**]
*<RMP Philosophy/Thought - McLain>*

14. Answer these questions about the physics behind a theremin, for 10 points each.
[10] The antennae of a theremin act as plates of two of these circuit elements. A simple electronic oscillator can be constructed by placing one of these elements in parallel with an inductor. The strength of these elements is measured in Farads.
ANSWER: **capacitor**s
[10] Although the musician directly changes the capacitance of an LC circuit, the frequency of that circuit is too high to hear, so it is modified using this technique. In this technique, the outputs of two oscillators are mixed and then put through a low-pass filter to yield a current whose frequency is the difference of the two input frequencies.
ANSWER: **heterodyning** [accept word forms; prompt on modulation and demodulation; prompt on answers related to “creating a beat frequency.”]
[10] Tuning a theremin can be made easier by using one of these non-musical devices, which are used to visualize current and voltage in undergraduate ENM labs.
ANSWER: **oscilloscope**
*<Science Physics - French>*

15. Answer the following about the architectural history of the Chicago suburbs. For 10 points each:
[10] The public library in Joliet was designed by this architect, who also created the Plan of Chicago and served as head of works for the Columbian Exposition, For most of his career, this designer worked with a firm he co-founded with John Root.
ANSWER: Daniel **Burnham**
[10] Oak Park is home to one of this architect's studios as well as more than 15 houses he designed. This architect, whose other studios included Taliesin and Taliesin West, built the Johnson Wax Building in the Chicago exurb of Racine, Wisconsin.
ANSWER: Frank Lloyd **Wright**
[10] Wright may have been influenced by the William Winslow House in nearby River Forest, a house by this designer of the Wainwright Building, This architect coined the maxim “form follows function”.
ANSWER: Louis Henry **Sullivan**
*<Arts Architecture - Myers>*

16. In an obituary, Terry Castle recalled being invited by this writer to a dinner party where she was promptly ignored by all the other guests. For 10 points each:
[10] Name this writer who, in that essay, repeatedly claimed her novel *The Volcano Lover* was misunderstood. She analyzed victim-blaming in talk about cancer and tuberculosis in an essay written while she was being treated for breast cancer.
ANSWER: Susan **Sontag**
[10] Castle recalled Sontag's obsession with having produced this Samuel Beckett play during the siege of Sarajevo. Lucky delivers a single frantic monologue in this play, which centers on the non-doings of Vladimir and Estragon.
ANSWER: ***Waiting for Godot*** [or ***En attendant Godot***]
[10] An essay from Castle's book *The Apparitional Lesbian* analyzes the potential attraction between the feminists Olive Chancellor and Verena Tarrant in this Henry James novel, which Castle deemed “the first 'lesbian novel' written in English.” The name of this novel may have inspired the name of a type of informal same-sex “marriage” between women.
ANSWER: *The* ***Bostonians***
*<Literature American - Kothari>*

17. In *Life on the Mississippi*, Mark Twain blamed the influence of this author's novels for the “pathetic” “architectural falsehood” of the Louisiana State Capitol's medieval-revival design. For 10 points each:
[10] Name this author who Twain also accused of doing “more real and lasting harm, perhaps, than any other individual that ever wrote” by creating a mythical version of chivalry in his historical novels that helped contribute to the outbreak of the Civil War.
ANSWER: Sir **Walter Scott**
[10] In an essay on Scotland published in *The Invention of Tradition*, this Oxford historian and rival of A. J. P. Taylor accuses Scott of fabricating many elements of modern Scottish nationalism, including wearing kilts and playing bagpipes.
ANSWER: Hugh **Trevor-Roper**
[10] In order to write a biography of this leader, Sir Walter Scott was granted unique access to archives relating to his imprisonment on St. Helena and did research by conversing with veterans of the Battle of Waterloo, at which this leader was defeated.
ANSWER: **Napoleon** I Bonaparte [accept *Life of Napoleon* ***Buonaparte***]
*<History European 1400-1914 - Myers>*

18. A line in which one of these characters “bar to” the other “a stif burdoun” may suggest that these two characters have a homosexual relationship. For 10 points each:
[10] Name these two pilgrims, who ride together. One of them is “hot and lecherous” and has a face covered in pimples, while the other has “hair as yellow as wax” and cannot grow a beard.
ANSWER: the **Summoner** and the **Pardoner** [accept **Somnour** or **Somonour** in place of “Summoner”]
[10] The Summoner and the Pardoner are characters in this Middle English collection by Geoffrey Chaucer.
ANSWER: *The* ***Canterbury Tales***
[10] At the end of the Pardoner's Tale, this character tells him that he'll cut off his bollocks and enshrine them in a “hog's turd.” Earlier, this character interrupts Chaucer's Tale of Sir Topaz since his rhymes are “doggerel” and “purgatory.”
ANSWER: the **Host** [or the **Hoost**, or accept either or both of **Harry** **Bailly**]
*<Literature British Non-Shakespeare - French>*

19. The overuse of the anti-inflammatory diclofenac in livestock during the 1990s has caused a 95% decline in populations of many species of these birds in South Asia. For 10 points each:
[10] Name these scavenging birds, whose decline has led to a buildup of cow carcasses, leading to a public health crisis. Some Parsis started breeding these birds to maintain their Towers of Silence.
ANSWER: **vulture**s
[10] A 2018 study used radio telemetry to show that vultures stay entirely on one side of the border between these two countries because one of them maintains a carrion ban. These two countries have disputed the town of Olivenza for the last two centuries.
ANSWER: **Spain** and **Portugal** [both answers required]
[10] Portugal maintains that carrion ban, which was originally implemented over the entire European Union after an outbreak of this prion-caused disease that began in the late 1980s.
ANSWER: **mad cow** disease [or **bovine spongiform encephalopathy**; or **BSE**]
*<Current Events Non-US - Kothari>*

20. After being raped by her brother in-law, this woman had her tongue cut out so she could never tell anyone. For 10 points each:
[10] Name this woman, who later uses weaving to tell her sister what had happened, after which they are both turned into nightingales.
ANSWER: **Philomela** [or **Philomel**]
[10] This king of Thrace was the one who raped Philomela. His wife, and Philomela's sister, Procne, gets revenge on him by cooking up their son Itys and serving him to this king.
ANSWER: **Tereus**
[10] Tereus was the son of this god, who in another myth, was caught in a golden net after having an affair with Aphrodite. This god's Roman equivalent was Mars.
ANSWER: **Ares**
*<RMP Greek/Roman Myth - Jankov>*

21. A lot of people wanted to overthrow the Weimar Republic. For 10 points each:
[10] This general and de facto World War I-era co-leader of Germany helped lead the Beer Hall Putsch against the Republic. This general gave an order for the Putschists to march, but did not plan or specify where, thus leading the disorganized mob he and Hitler led to be easily defeated by Bavarian state police.
ANSWER: Erich von **Ludendorff**
[10] These units of demobilized World War I veterans were instrumental in suppressing the leftist Spartacist Uprising against the Weimar Republic. These groups would later attempt to overthrow the Weimar Republic themselves in the Kapp Putsch.
ANSWER: ***freikorps***
[10] The fall from power of this former co-leader with Ludendorff and namesake of a zeppelin that crashed spectacularly over New Jersey marked the end of the Weimar Republic.
ANSWER: Paul von **Hindenburg**
*<History European 1914-present - Myers>*