**2019 National All-Star Academic Tournament**

**Round 14 – Tossups**

1. This ruler issued a decree banning the practice of Islam by his realm's predominantly Turkic “huihui” community. This ruler sponsored the inventor of a bronze rain gauge despite that inventor's membership in his kingdom's lower class. In another reform, this ruler granted members of the enslaved *nobi* class extended maternity and paternity leave. As part of his initiative to advance science in his country, this ruler reformed his country's map system to place his capital at the center, leading to more accurate astronomical predictions. This leader established the Hall of Worthies to promote scientific inquiry. This ruler created a 28-character alphabet designed for ease of learning, which partially replaced Chinese-derived *hanja*. For 10 points, name this creator of *Hangul* who advanced scientific technology during his rule of the Joseon Dynasty of what is now Korea.  
ANSWER: **Sejong** the Great [accept **Chungnyeong** or Yi **Do**]  
*<History World - Jankov>*

2. A poem which criticises 'un-Motherly Nature' observes in its final line that, like one of these objects, 'the doom of age will blight your beauty'. A set of antiphrasis-heavy 'letters' criticising a work titled for one of these things was published by Christine de Pizan as part of a so-called 'quarrel' concerning it. A poem part-titled for one of these things was started by Guillaume de Loris and was later extended by about 17,000 lines by Jean de Meun. The end of the ballad “Barbara Allen” contains a common motif in medieval literature in which one of these plants grows around a briar out of a pair of lovers' graves. An influential medieval French 'Roman', or 'romance', was titled for one of these things. In another poem, the speaker's love is compared to a “red, red” one of these things “that's newly sprung in spring”. For ten points, name these flowers often used as a metaphor for love.  
ANSWER: **rose** [prompt on flowers]  
*<Literature European - Krol>*

3. An analogue of adamantine with this functional group has some effect as an antiviral and antiparkinsonian medication. A carbamate degrades into carbon dioxide and a molecule with this functional group; that degradation can be used to *produce* this functional group by adding water to an isocyanate intermediate obtained via a Hoffmann rearrangement. In a straightforward method for producing an alkane with this functional group, a starting alkyl halide reacts with potassium phthalimide **(thal-ee-mide)**, cleaving the intermediate alkyl phthalimide with a strong base. The Gabriel synthesis adds this functional group. Epinephrine is part of a class of organic compounds that contain catechol and this functional group. For 10 points, name this functional group of a nitrogen single bonded to a carbon.  
ANSWER: **amine**s [accept catechol**amine**s after “Epinephrine” is read; do not accept or prompt on “imine” or “amide”]  
*<Science Chemistry - Etzkorn>*

4. On the way to this city, a man is encouraged after being greeted by “brothers and sisters” at the Three Taverns. While journeying to this city, one man heals the father of Publius from dysentery and survives a snakebite while building a fire, causing spectators to think he is a god. An epistle addressed to the people of this city uses the metaphor of a wild shoot being grafted into an olive tree to illustrate the inclusion of the Gentiles into the gospel. The twelfth chapter of that epistle addressed to this city commands the readers to offer their bodies as “living sacrifice.” Earlier, that epistle to this city asserts that “all things work together for good to those who love God” and that the “wages of sin is death.” For 10 points, name this city that Paul travels to at the end of the Acts of the Apostles to stand trial before Nero.  
ANSWER: **Rome** [prompt on Epistle to the Romans]  
*<RMP Christian/Bible Religion - Suh>*

5. This novel was originally intended to end with the protagonist discovering that “the world was a world for him,” but its author then added a man's dream of “an existence of soft and eternal peace” and the scene of a “golden ray of sun” shining through “leaden rain clouds.” This novel opens with the image of “the cold pass[ing] reluctantly from the earth” as “retiring fogs” reveal a group of men “stretched across the hills.” The protagonist of this novel watches a squirrel run away after he throws a pine cone at it, leading him to conclude that his decision to retreat in battle was the right one. The protagonist of this novel becomes a flag-bearer after the death of the Christ-like figure Jim Conklin. The title of this novel refers to a mark that the protagonist, Henry Fleming, wants to receive to emulate his injured comrades. For 10 points, name this Civil War novel by Stephen Crane.  
ANSWER: *The* ***Red Badge of Courage***  
*<Literature American - Smith>*

6. In his *Disquisition on Government*, John C. Calhoun argued that this situation is a misnomer and is that which is “most repugnant to [man's] feelings.” David Hume argued that the sociability of human's makes this situation impossible while arguing against Jean-Jacues Rousseau's conception of it, which he described as solitary wandering. John Locke listed inconveniences in this situation which may make the alternative more appealing. In contrast to an earlier thinker, Locke argued that all men have a right to return to this condition. Thomas Hobbes described this situation as a “war of all against all” where human life is “solitary, poor, nasty, brutish, and short” in his book, *Leviathan*. For 10 points, give this term for the supposed period of time before the establishment of government, which many libertarian philosophers consider the most free.  
ANSWER: state of **nature** [accept **savage** state; prompt on answers indicating anarchy or lack of government]  
*<RMP Philosophy/Thought - McLain>*

7. In this state, legislators Barbara Bollier and Dinah Sykes switched parties after one electoral defeat for their party. The candidacy of high school student Tyler Ruzich may have swung one close primary election in this state. Mississippi Secretary of State Delbert Hosemann told one politician from this state to “jump in the gulf of Mexico” after he demanded data from him. Greg Orman mounted a failed independent bid to become this state's senator, then its governor. The title of a Thomas Frank book asks “What's the matter with” this state's embrace of conservatism. The losing candidate in this state's most recent gubernatorial election defeated incumbent Jeff Colyer in a primary, and this state's low income tax policies were nicknamed “Brownbackonomics”. For 10 points, name this state currently governed by Democrat Laura Kelly, where Koch Industries is headquartered in Wichita.  
ANSWER: **Kansas**  
*<Current Events US - Myers>*

8. This man's last words to his children was the advice to “Agree with each other, give money to the soldiers, and ignore all other men” before his death in Caledonia. This emperor defeated rival claimant Clodius Albinius and Pescinnius Niger to consolidate control of the empire. It's not Hadrian, but this emperor had a triumphal arch created in the Roman Forum after he won a war against the Parthians. This emperor's son destabilized the tax base of Roman Empire by granting citizenship to almost all free men living in the provinces. That son of this emperor, also famous for building a massive bath complex in Rome, was Caracalla. This emperor, who seized power after the death of Pertinax, was born in the city of Leptis Magna, making him the only African Roman emperor. For ten points, name this emperor who began the Severan dynasty in the late 2nd century AD.  
ANSWER: **Septimius Severus** [accept **Septimius** after the Severan dynasty is mentioned, prompt on Septimius and Severus before Severan dynasty]  
*<History European to 1400 - Jankov>*

9. Thomas B. Hess documented the completion of the first painting in this series after Meyer Schapiro convinced its artist not to abandon it. In 1994, David Geffen acquired the third entry in this series from an art museum in Tehran. To explain his choice of media, the artist of this series remarked that “flesh is the reason oil paint was invented.” This series was inspired in part by two Sumerian idols on display at the Met. The paintings in this series were scraped and repainted hundreds of times, and some of them contain mouths cut from cigarette ads. A sketch that was likely a draft for a work in this series was erased by Robert Rauschenberg. An unnumbered painting often grouped with this series is depicted “with bicycle.” The artist's wife Elaine asserted that the figures in this series were not based on her. For 10 points, name this series of abstract female forms by Willem de Kooning.  
ANSWER: ***Woman*** [accept de Kooning’s **women**]  
*<Arts Painting - Keyal>*

10. A pathway in this organelle, which can lead to an increased amount of spliced XBP1 mRNA, is made up of coupled pathways regulated by PERK, IRE1, and ATF6. Receptors found on these organelles bind to a nucleoprotein whose Alu domain causes “elongation arrest.” PDI is found in these organelles, where it catalyzes the formation of disulfide bonds. BiP is a heat shock protein that negatively regulates the unfolded protein response, which occurs in response to stress in this organelle. Proteins are targeted to this organelle using signal recognition particles. Vesicles leaving this organelle may be tagged with COPII to transport proteins to the Golgi apparatus. For 10 points, name this organelle whose “rough” form is studded with ribosomes.  
ANSWER: rough **endoplasmic reticulum** [or the rough **ER**]  
*<Science Biology - Shanmugam>*

11. In a split-screen scene, a character played by this actor takes up two-thirds of the screen and answers a question with “hardly ever, maybe three times a week” while a woman in the screen's other third answers the same question with “constantly, I'd say three times a week.” While in line, this actor's character gets in a fight with a man who mistakenly says television is a “hot” medium before this actor pulls Marshall McLuhan into the scene. A character played by this actor tells of growing up under a roller coaster in an opening classroom scene in which he characteristically breaks the fourth wall. The female lead in that film leaves this actor for a record producer played by Paul Simon. This actor's character Alvy Singer meets the Diane Keaton-played title character of one of his films while playing tennis. For 10 points, name this actor who also directed *Annie Hall*.  
ANSWER: Woody **Allen**  
*<Arts Film - Smith>*

12. The “Terminal Essay” of a book by this author discusses a hypothesized region of the world in which pederasty was celebrated, termed the “Sotadic zone.” This man produced one translation roughly contemporaneously with John Payne. Borges originally attributed his “The Two Kings and the Two Labyrinths” to this author in reference to this Englishman's best-known work. This man based much of that project on an earlier French edition by Antoine Galland. This man published his *Personal Narrative of a Pilgrimage to Al Madinah and Mecca* after disguising himself to go on hajj. Despite not knowing Sanskrit, he took credit for an 1883 English version of the Kama Sutra. The “supplemental nights” of this author's 16-volume translation of stories-within-stories includes the tale of a Chinese man named Aladdin. For 10 points, name this Victorian Arabist and explorer who translated the *Arabian Nights*.  
ANSWER: Richard Francis **Burton**  
*<Literature British Non-Shakespeare - Smith>*

13. The Furuta variety of this system developed at the Tokyo Institute of Technology includes non-actuated links between two arms and is a classic test case in control theory. A leading-order correction to a property of this system's motion is given by its initial parameter squared times a factor of one-sixteenth. When it satisfies three cosine theta 1 ['theta one'] plus cosine theta 2 ['theta two'] is greater than two, a variant of this system depends strongly on its initial conditions. Two of these systems are combined to form a prototypical example of chaos. The period of this system is given by an elliptic integral, and it is often approximated with the small angle approximation to give a period proportional to the square root of their length over g. For 10 points, name these systems consisting of a weight attached to the end of a rod.  
ANSWER: **pendulum** [accept double **pendulum** or Furuta **pendulum** or multiple **pendulum**; prompt on simple harmonic oscillator or similar]  
*<Science Physics - Krol>*

14. After Ronald Scobie ordered that one of this country's guerrilla groups be disarmed, members of the right-wing Organisation X fought with other groups in the 'December Events' in this country's capital. A 1941 battle fought in this country failed to fully break through a fortified line of defences named after its former Prime Minister, who led the dictatorial 4th of August Regime. The EDES and EKKA formed as resistance groups during World War II and later clashed in this country's Civil War. The Truman Doctrine was created to give aid to anticommunist forces in civil wars in this country and its Eastern neighbor. It's not an island, but the failure to achieve 'enosis' led to the collapse in 1974 of this country's Regime of the Colonels following the Turkish invasion of Cyprus. Iannis Metaxas led, for ten points, which country, where several military dictatorships were led from Athens?  
ANSWER: Republic of **Greece** [accept **Elleniki** Demokratia, **Hellenic** Republic]  
*<History European 1914-present - Krol>*

15. A *perpetuum mobile* piece in this genre commonly misattributed to Franz Schubert is Francois Schubert's *The Bee*. Pieces in this genre are collected in Beethoven's Opus 119, Opus 126, and Opus 33. A set of five pieces of this type for clarinet and piano were made by Gerald Finzi, while six of these pieces for string quartet make up Anton Webern's Opus 9. The manuscript of an “omnitonic” piece usually named for being in this genre names it as the “Fourth Mephisto Waltz.” An A minor *Albumblatt* discovered by Ludwig Nohl is more commonly called the 25th piece in this genre by a certain composer. Liszt subtitled a heavily chromatic piece in this genre for being “without tonality.” A piano piece in this genre likely depicts the wife of Johann Hummel in the 3/8 opening's rapid alternations between sixteenth note Es and D-sharps. For 10 points, name this genre which includes Beethoven's “Für Elise.”  
ANSWER: **bagatelle**s  
*<Arts Music - Smith>*

16. This function is applied to a function at two different inputs on either side of the inequality that makes up the second strong Wolfe condition. In one algorithm, this function applied to the sum of several inputs is estimated by computing this function on a single randomly-chosen summand, in contrast to “batch” methods that compute this function directly. This function of the log of the determinant of a matrix *X* equals *X*-inverse. Line search methods typically form updates by adding a term whose dot product with this function at the previous point is negative. This function's output is orthogonal to all level sets and, if nonzero, points in the direction of greatest increase, a fact used in a class of descent algorithms named for this function. For 10 points, name this operator symbolized del, which gives the partial derivatives of a function with respect to each of its arguments.  
ANSWER: **gradient** [or **grad**; prompt on del before mention; prompt on derivative or partial derivative]  
*<Science Math - Morrison>*

17. An acronym beginning with this letter is used in syntax to denote a group of verbs including “believe,” “judge,” and “prove” that take objects that function as subjects for a following infinitive. Along with t, this letter is used to denote one of the two basic semantic elements in bracket or tree notation. The “Greek” method of writing this letter was long considered a mark of high culture. In semantics and formal logic, a backwards version of this letter is used as shorthand for “there exists.” This letter is the second in the old English digraph “ash.” It's not A, but symbols including this letter are used to denote the majority of English front vowels. An inverted version of this letter is used to represent the sound called “schwa” in IPA. For 10 points, name this letter, the second of five vowels in the Latin alphabet.  
ANSWER: **e** [accept **ECM** verbs, **epsilon**]  
*<Social Science Linguistics/Languages - Myers>*

18. Self-taught artist Ralph Fasanella's large painting commemorating an event in this state was removed from the meeting room of the House Committee on Education and Labor by Republicans in 1995. A 14-year-old resident of this state named Carmela Teoli testified before Congress how her scalp had been torn off by a machine. Harriett Hanson Robinson helped lead an all-female strike at a textile mill in this state in 1836. Joseph Ettor and Arturo Giovannitti were wrongly tried for murder in this state during a time period where an attack on a street car left Anna LoPizzo dead. The slogan “bread and roses” was most prominently adopted at a 1912 strike in this state's city of Lawrence. Two anarchists in this state were executed for robbing the Slater and Morrill Shoe Company. For 10 points, name this state where Sacco and Vanzetti were executed and the city of Lowell was a frequent target of textile strikes.  
ANSWER: **Massachusetts**  
*<History American (1865-1945) - Bentley>*

19. One author who played this sport attributed his success to feeling “best physically enwebbed in sharp angels, acute bisections, shaved corners” despite being “pretty untalented.” At the end of that essay, Antitoi detaches a retina after being pushed into a fence by the wind while practicing this sport. After winning a match of this sport, one character nicknamed “The Darkness” has his head frozen to a window and his bed bolted to the ceiling. The essay “Derivative Sport in Tornado Alley” describes an author's experience playing this sport in the Midwest. John “No Relation” Wayne and Ortho Stice both play this sport at an academy founded by a man who creates a film so entertaining that nobody can stop watching, James Incandenza. For 10 points, name this sport played by Hal Incandenza at the Enfield Academy, the subject of David Foster Wallace's essay “Federer Both Flesh and Not.”  
ANSWER: **tennis**  
*<Literature American - Tong>*

20. This substance was first created after Ampelos was gored to death for insulting Selene. On their way to Troy, the Greeks attempted to kidnap the daughters of Anius who could change whatever they wanted into wheat, oil and this substance. After attempting to rape his mother, Lycurgus banned this substance, which resulted in Chiron's death after Pholus gave some to Herakles. King Rhadamantys instructed a man named for being “rich in” this substance to introduce it to Chios, an island later renowned for producing this substance in Classical antiquity. Icarius **(NOTE: not “Icarus”)** was stoned to death after sharing the gift of producing this substance with a group of shepherds who thought they were poisoned. Silenus was the tutor of the god of this substance, which Odysseus used to get Polyphemus drunk in order to escape his cave. Dionysus was the god of, for 10 points, what substance produced from fermenting grapes?  
ANSWER: **wine**  
*<RMP Greek/Roman Myth - Rao - Pothuraju>*

21. After this character repeats a village folktale about God breaking up the moon to make the stars, one of his comrades offers a scientific explanation for the lunar cycle. This character reflects that “The belly is an ungrateful wretch [that] never remembers past favors [and] always wants more tomorrow,” leading him to save a piece of bread for the next day. He is told to rejoice since “Here you have time to think about your soul” by his Baptist roommate. This character frequently borrows cigarettes from the Latvian Kilgas. This character hides the best trowel from other workers, which comes in handy when he is sent to work on a wall for the Power Station. This title character is usually called Shukhov during his time as a zek in Gang 104. For 10 points, name this character followed through one day of life in a prison camp in a novella by Aleksandr Solzhenitsyn.  
ANSWER: **Ivan** **Denisovich** [accept either underlined name; accept **Shukhov** before mention]  
*<Literature European - Smith>*

**2019 National All-Star Academic Tournament**

**Round 14 – Bonuses**

1. Kurt Vonnegut's novel *Galápagos* puts one of these things before a character's name whenever that character is going to die soon. For 10 points each:  
[10] Name these things. In the preface to *Breakfast of Champions*, Vonnegut highlights his immaturity by including a drawing of one of these things, which he claims is a picture of an anus.  
ANSWER: **asterisk** [or **star**]  
[10] Somewhat more maturely, this other Vonnegut novel includes a drawing of a tombstone with the epitaph “Everything was beautiful, and nothing hurt,” which Billy Pilgrim thinks up when asked about World War II by his wife Valencia.  
ANSWER: ***Slaughterhouse-Five****, or The Children's Crusade: A Duty-Dance with Death*  
[10] *Slaughterhouse-Five* also includes a drawing of a heart-shaped locket engraved with the Serenity Prayer, which belongs to this woman. This actress is abducted by the Tralfamadorians along with Billy Pilgrim.  
ANSWER: **Montana** **Wildhack** [accept either underlined name]  
*<Literature American - Morrison>*

2. In his book *Seeing Like a State*, James Scott accuses this leader, among others, of following an ideology of “High Modernism” to the detriment of his subjects. For 10 points each:  
[10] Name this leader who collaborated with Kenneth Kaunda and the Chinese government to build the Tazana Railroad and prosecuted the Kagera War against his Western neighbor.  
ANSWER: Julius **Nyerere**  
[10] *Seeing Like a State* uses the establishment of these structures as an example of its title phenomenon. These structures were preceded by collectives built by the Ruvuma Development Corporation, and a policy of population relocation to these places was announced in the Arusha Declaration.  
ANSWER: ***ujamaa* villages** [prompt on villages]  
[10] Nyerere was the first president of this country, which was created by the unification of a British colony on mainland Africa with the sultanate of Zanzibar.  
ANSWER: United Republic of **Tanzania**  
*<History World - Myers>*

3. This book suggests mandating “RECAP regulations” to mandate explanations for complex corporate payment plans. For 10 points each:  
[10] Name this book, which suggests that states participate in libertarian paternalism to help their citizens. It describes “choice architectures,” which help planners choose responsible defaults as examples of the title phenomena.  
ANSWER: ***Nudge****: Improving Decisions About Health, Wealth, and Happiness*  
[10] With Cass Sunstein, this University of Chicago economist and winner of the 2017 Nobel Prize in Economics wrote *Nudge*.  
ANSWER: Richard **Thaler**  
[10] Richard Thaler won the Nobel for his work in this field, which combines psychology and other human-based factors with economics to provide a better explanation of why actors act as they do. Much of Daniel Kahneman's work falls into this subfield of economics.  
ANSWER: **behavioral** economics  
*<Social Science Economics - Shanmugam>*

4. Charles Sanford Skilton belonged to a loose movement that used the musical ideas of these people in their compositions. For 10 points each:  
[10] Name this broad cultural group, whose music was used alongside that of African-Americans as inspiration for Dvorak's ninth symphony.  
ANSWER: **Native Americans** [or **American Indians**; accept **Indianist**s; prompt on Indians]  
[10] The Native American flutes played by Tommy Wildcat and Hawk Littlejohn are duct flutes, which are easier to pick up than flutes named for these often-difficult facial formations. This French term also describes the opening formed by the mouth through which brass players make sound.  
ANSWER: **embouchure** [or **embouchure** flutes; or **embouchure** holes; or **lipping**s]  
[10] The English horn solo in the *largo* of Dvorak's ninth was inspired by this black singer, who introduced the composer to spirituals at the National Conservatory.  
ANSWER: Harry **Burleigh** [or Harry Thacker **Burleigh**]  
*<Arts Music - Smith>*

5. The fact that an alternate name for this figure sounds like “Azazel” has led followers of a religion who worship this figure to be labeled devil worshippers. For 10 points each:  
[10] A “black book” purportedly contains the words of what divine emanation who appears in the form of a bird not native to the region where it is worshipped?  
ANSWER: **Melek Tawoos** [accept **Tawuse Melek**, **Melek Taus**, **peacock angel**]  
[10] Melek Tawoos, the peacock angel, is revered in this secretive religion whose members were formerly concentrated on Mt. Sinjar. This religion's followers were targeted by the Islamic State for enslavement after a 2015 offensive against their homelands.  
ANSWER: **Yazidi**s [accept **Ezidi**s]  
[10] The Yazidis are native to this country, where the Mandaean religion, which reveres St. John, is practiced in the marshes around the city of Basra.  
ANSWER: Republic of **Iraq**  
*<RMP Non-Christian/Bible Religion - Myers>*

6. This character holds a scepter in his right hand and a veto in his left hand. For 10 points each:  
[10] Name this satirical character, who wears a crown and fancy robes. The phrases “Had I been consulted” and “Born to command” surround the frame of the cartoon in which this character appears.  
ANSWER: **King Andrew** the First [or King **Andrew the First**; prompt on Andrew or Andrew Jackson]  
[10] In the cartoon, King Andrew stands on top of the constitution and “internal improvements” of this institution. Andrew Jackson fought a so-called “war” against this institution when it was led by Nicholas Biddle.  
ANSWER: Second **Bank** of the United States [or **BUS**]  
[10] Jackson's defeat of the bank led to the proliferation of state banks that issued unbacked paper money. This edict, which was carried out by Levi Woodbury, demanded payment for land in gold and silver in an attempt to fix that problem. However, this edict instead likely caused the economic Panic of 1837.  
ANSWER: **Specie Circular**  
*<History American (pre-1865) - French>*

7. This type of soil's rapid expansion and contraction led to its being named after “turning”. For 10 points each:  
[10] Name this type of soil found in the Southern U.S.'s “black belt” that frequently causes agricultural problems when it cracks.  
ANSWER: **vertisols** [accept **vertosols**]  
[10] Vertisols are overwhelmingly composed of montmorillonite, a type of this substance. This substance is the finest grained component of soil along with sand and silt and is usually composed of minerals like kaolinite.  
ANSWER: **clay**  
[10] Vertisols uniquely lack a “b” element of this type. Layers of differently-composed soil are given this name in soil science.  
ANSWER: soil **horizon**s  
*<Science Earth Science - Myers>*

8. This question could be answered with “at least one” based on the line “I have given suck and know/ how tender 'tis to love the babe that milks me” or “none” based on another character crying “he has no children” after his son is killed. For 10 points each:  
[10] Name this question that titles an L. C. Knights essay in which he attacks prior critics for reifying Shakespeare's characters independently of their texts.  
ANSWER: ***How Many Children Had Lady Macbeth?*** [accept different wordings of the question such as **”How many children did Lady Macbeth have?”**]  
[10] This author of *Confessions of an English Opium Eater* wrote another important essay on *Macbeth*, which focuses on the knocking at the gate heard by a porter after the death of Duncan.  
ANSWER: Thomas **De Quincey** [prompt on Quincey]  
[10] In another essay, this author described Macbeth as taking place in a Platonic state of suspended time and space. This author of *The Western Canon* avoided discussing Shakespeare entirely in the first edition of his *The Anxiety of Influence*.  
ANSWER: Harold **Bloom**  
*<Literature Shakespeare - Myers>*

9. Female dancers strike the ground with their pointe shoes to allude to the pain of marriage in this choreographer's *Les Noces*. For 10 points each:  
[10] Name this dancer who premiered the role of the Hostess after choreographing Francois Poulenc's ballet *The Gazelles*. This dancer felt like clay in a sculptor's hands when modelling the steps for a 1912 ballet performed in bare feet.  
ANSWER: Bronislava **Nijinska** [or Bronisława **Niżyńska**, or Bronislava Fominichna **Nizhinskaya**; do not accept or prompt on “Nijinsky” or any other masculine variants]  
[10] Bronislava Nijinska was also the first to create choreography for this repetitive piece by Maurice Ravel based on a slow Spanish dance.  
ANSWER: Maurice **Ravel**  
[10] Nijinska choreographed many works for the namesake company of this dancer, who lacked comprehensive training but was known nonetheless for her provocative performance of the *Dance of the Seven Veils*. This woman commissioned transcriptions of *Iberia* from Ravel which morphed into his *Bolero*.  
ANSWER: Ida Lvovna **Rubinstein** [or Lydia Lvovna **Rubinstein**]  
*<Arts Ballet/Dance/Musicals - Husar>*

10. An autoregressive model has the wide-sense form of this property if all of the roots of its characteristic equation have absolute value greater than one. For 10 points each:  
[10] Name this general property. For a Gaussian process, the wide-sense and strict-sense forms of this property are equivalent and require that the mean be constant and the covariance of two points depend only on their distance.  
ANSWER: **stationary** [or **wide-sense stationary**; or **strict-sense stationary**; accept word forms such as **stationarity**]  
[10] A stationary process is one whose joint distribution is invariant under shifts in this parameter. Stochastic processes are typically indexed by this parameter, hence the subscript *t*.  
ANSWER: **time**  
[10] These “memoryless” stochastic processes are often assumed to be stationary. If so, one of these processes with finitely many states can have its transition probabilities stored in a single matrix, whose rows all sum to one.  
ANSWER: **Markov chain** [or **Markov process**]  
*<Science Math - Morrison>*

11. Answer the following about the British-Ghanaian-American philosopher, Kwame Anthony Appiah. For 10 points each:  
[10] In a work titled for the *Ethics of* this concept, Appiah argues that some forms of this concept demand respect and recognition at the expense of other values. In *Young Man Luther*, Erik Erikson defined this concept's “crisis” as the failure to achieve individuation in adolescence.  
ANSWER: **identity**  
[10] In a review of the book *The Moral Landscape*, Appiah claimed that this thinker was doing little more than reformulating utilitarianism in his attempts to establish a scientific morality. This “New Atheist” thinker also wrote *The End of Faith*.  
ANSWER: Samuel Benjamin **Harris** or Sam **Harris**  
[10] In the *Ethics of Identity* and *Cosmopolitanism*, Appiah discussed differences between ethnic groups as well as these things, which represent the collective value and beliefs of a society. Ruth Benedict described these things as “personality writ large” in a 1934 book.  
ANSWER: **culture** [accept word forms]  
*<RMP Philosophy/Thought - McLain>*

12. Unlike the rest of the country that controls it, this region was colonized by Portugal before it was awarded to France at the Berlin Conference. For 10 points each:  
[10] Name this region home to the Jola ethnic group, which is waging a long-running separatist rebellion under the MFDC. It is separated from the Northern part of its country by the Gambia.  
ANSWER: **Casamance** [prompt on, but do not reveal Senegal or Southern Senegal]  
[10] Casamance is attempting to separate from this country, whose “four communes,” including Saint-Louis, Goree, and Dakar, were granted representation in the French parliament under colonialism.  
ANSWER: Republic of **Senegal**  
[10] The Jola of Casamance complain of oppression by this majority ethnic group of Senegal. This ethnic group is the namesake of a pre-colonial kingdom that controlled most of coastal Senegal.  
ANSWER: **Wolof** [accept **Jolof**]  
*<Geography World - Myers>*

13. Name these things about people who sail to mythical lands of plenty, for 10 points each:  
[10] In an Egyptian legend, a shipwrecked sailor encounters a snake who declares that he is the king of this place. This land had much frankincense and myrrh and was referred to as the “Land of the Gods.”  
ANSWER: **Punt**  
[10] Sailors travel by sea to Tír na nÓg in the immram tales originating from this island. The legendary Cattle Raid of Cooley took place on this island, many of whose myths are outlined in the Ulster cycle.  
ANSWER: **Ireland**  
[10] Many heroes of Greek myth attempted to sail to this land where no one grew old and everything was plentiful. This land was named for being beyond the land of the god of the north wind, which may have actually just been Scandinavia.  
ANSWER: **Hyperborea** [accept the Land of the **Hyperboreans**]  
*<RMP Non-Greek/Roman Myth - French>*

14. The effects of this military action were only reversed by the 1961 Operation Vijay. For 10 points each:  
[10] Name this action that Timoji suggested to Afonso de Albuquerque in 1510, which involved a military defeat of Ismail Adil Shah's forces.  
ANSWER: Portuguese **conquest of Goa** [accept answers indicating that **Goa** was defeated militarily or turned into a colony of Portugal]  
[10] Timoji had earlier assisted the Portuguese at this battle, in which Portugal's navy defeated a combined force drawn from the navies of Gujarat, Calicut, and the Mamluks. Portugal's dominance in the area around this battle was eventually broken after Captain Best defeated them at the Battle of Swally.  
ANSWER: Battle of **Diu**  
[10] Much of the framework for the conquest of Goa and Battle of Diu were laid by this Portuguese explorer, the first European to sail to India via the Cape of Good Hope. He established an early spice route between the two countries.  
ANSWER: Vasco **da Gama**, 1st Count of Vidigueira  
*<History European 1400-1914 - Shanmugam>*

15. Among this country's literary tradition is *skaz*, a form in which the narration of a story imitates spontaneous oral storytelling and uses the idioms and dialect of a certain character in order to imitate that character's persona. For 10 points each:  
[10] Name this country. Authors from this country such as Leo Tolstoy and Nikolai Gogol employed *skaz* in their shorter works.  
ANSWER: **Russia** [or **Rossiya**]  
[10] This story employs *skaz* to imitate the idiosyncrasies of Pahom, who declares that “if [he] had enough land, [he] shouldn't fear the devil himself.” This story ends when Pahom collapses and dies after trying to claim land from the Bashkirs.  
ANSWER: **How Much Land Does a Man Need?** [or **How Much Land Does a Man Require?** or **Mnogo li cheloveku zemli nuzhno?**]  
[10] This other Russian author frequently employed *skaz* in works such as “The Steel Flea” and *Lady Macbeth of the Mtsensk District.*  
ANSWER: Nikolai Semyonovich **Leskov** [or M. **Stebnitsky**]  
*<Literature European - Husar>*

16. A group of artists from this country was named for the word for “patches” or “spots,” referring to their practice of painting outdoors to focus on regions of light and shadow. For 10 points each:  
[10] Name this country, where that group painted *en plein air* a few years before the French impressionists. An earlier artist painted an *en plein air* oil sketch of a bridge in this country that he developed into a painting now held by the National Gallery of Canada.  
ANSWER: **Italy**  
[10] After painting that *Bridge at Narni*, Camille Corot came to this village to paint the Forest of Fontainebleau. The Macchiaioli were influenced by Théodore Rousseau and other artists from this village's namesake school.  
ANSWER: **Barbizon** [accept **Barbizon school**]  
[10] Another member of the Barbizon school was this French realist painter of *The Angelus* and *The Gleaners*.  
ANSWER: Jean-François **Millet**  
*<Arts Painting - French>*

17. Three members of this organization were killed after they accidentally set off a bomb in the basement of a Manhattan townhouse. For 10 points each:  
[10] Name this radical left-wing domestic terrorist group. This group claimed credit for several bombings of U.S. government and military buildings, which they claimed were retaliation for things such as the invasion of Laos and the bombing of Hanoi.  
ANSWER: **Weather Underground** [or the **Weatherman** or the **Weathermen**]  
[10] The Weather Underground was founded at this university, a center of the counterculture movement. The first “teach-in” was organized by Students for a Democratic Society at this university.  
ANSWER: University of **Michigan**, Ann Arbor  
[10] The original name of the Weathermen came from the lyric “you don't need a weatherman to know which way the wind blows” from this singer's “Subterranean Homesick Blues.” This folk musician also wrote “The Times They Are A Changin'.”  
ANSWER: Bob **Dylan** [or Robert Allen **Zimmerman**]  
*<History American (1945-present) - French>*

18. In Hamiltonian mechanics, time derivatives of position and momentum are set equal to partial derivatives of the Hamiltonian, which for a time-independent system, corresponds to this quantity. For 10 points each:  
[10] Name this quantity, measured in Joules, which is the sum of a kinetic and potential component.

ANSWER: total **energy**  
[10] This theorem states that, for a Hamiltonian system, the phase-space distribution function is constant along all trajectories.  
ANSWER: **Liouville**'s theorem  
[10] Liouville's theorem implies that a numerical simulation of a Hamiltonian system only conserves energy when the integrator has this property. Leapfrog and Verlet integrators have this property, but Runge-Kutta does not.  
ANSWER: **symplectic**  
*<Science Physics - Mitchell>*

19. One member of this family carries on a lesbian affair with her swimming teacher Winifred Inger before rekindling a disappointed romance with Anton Skrebensky. For 10 points each:  
[10] Give this surname of sisters Ursula and Gudrun, who feature in the novels *The Rainbow* and *Women in Love*.  
ANSWER: **Brangwen**  
[10] Those novels are by this writer of *Sons and Lovers*, who included nature-themed poems like “Snake” in his collection *Birds, Beasts, and Flowers*.  
ANSWER: D. H. **Lawrence** [or David Herbert **Lawrence**]  
[10] The spinsters Nellie March and Jill Banford try to kill one of these animals in a Lawrence novella. Silvia Tebrick suddenly turns into one of these wild animals in a David Garnett novel.  
ANSWER: **fox**es  
*<Literature British Non-Shakespeare - Kothari>*

20. The ionization energy of a molecule may be calculated by applying the results of this technique to Koopmans' theorem. For 10 points each:  
[10] Name this technique, which counts the amount of namesake particles emitted by shining high-frequency radiation at a sample.  
ANSWER: **x-ray photoelectron spectroscopy** [or **XPS** or **X-ray PES**, **ESCA**, or **electron spectroscopy for chemical analysis**; prompt on photoelectron spectroscopy or spectroscopy]  
[10] Performing x-ray photoelectron spectroscopy on the diatomic molecule of this element exhibits a peak near 15.5 **(“fifteen point five”)** electron volts. This element itself has an ionization energy of 13.6 **(“thirteen point six”)** electron volts.  
ANSWER: **hydrogen**  
[10] The graphs produced by x-ray photoelectron spectroscopy have a series vibrational peaks, as a result of this phenomenon. This phenomenon refers to the splitting of spectral lines due to the spin-orbit interaction.  
ANSWER: **fine structure** [do NOT accept or prompt on **hyperfine** structure]  
*<Science Chemistry - French>*

21. The archaeologist Bradley Lepper discovered a “great road” named for this culture, which led out from one of its centers at Newark. For 10 points each:  
[10] Name this culture succeeded by the Fort Ancient and preceded by the Adena culture, which had subgroups named for Havana and Crab Orchard and built a massive octagonal earthwork that may have been used as a lunar calendar.  
ANSWER: **Hopewell** Culture  
[10] The Hopewell culture built many of these structures for burial. The largest of these structures in the United States is a “Great Serpent” one also located at Newark.  
ANSWER: **mound**s  
[10] Monks Mound, named for Capuchin friars who camped on top of it, overlooked the central plaza of this massive pre-Columbian city in modern East St. Louis. This city was the center of a “Mississippian” trading network that extended as far as Canada and Florida.  
ANSWER: **Cahokia**  
*<History American (pre-1865) - French>*