**2019 National All-Star Academic Tournament**

**Round 4 – Tossups**

1. In this film, the feet of the protagonist poke out from behind a bed as he hides in a room where a stuffed horse is used as a coat rack. In this film, the protagonist flips upsides while in a Gravitron carnival ride. A crowd of young children watch a puppet show version of “Little Red Riding Hood” in this movie. This film, which was dedicated to Andre Bazin, contains an improvised interrogation scene in which the protagonist is questioned about his attempt to return a stolen typewriter. The protagonist of this film plagiarizes Balzac after his shrine to the author catches fire. This film ends with a freeze-frame of the protagonist, played by Jean-Pierre Leaud, on the beach after he escapes from a juvenile detention center. For 10 points, name this first film about Antoine Doinel by Francois Truffaut.  
ANSWER: *The* ***400 Blows*** [or *Les* ***Quatres Cents Coups***]  
*<Arts Film - Smith>*

2. A theorist who wrote in this language asserted that “a theater which makes no contact with the public is a nonsense” in his essay “Emphasis on Sport.” A man who believes he is Albert Einstein kills his nurse to begin a play in this language. An assassin is told “Not yet… / You have to come to his door three times” in a play in this language set at the Charenton Asylum. In a play in this language, three “illustrious ones” are denied hospitality by everyone except the prostitute Shen Te. *The Physicists* and *Marat/Sade* were written in this language. A playwright in this language borrowed from Chinese theater to develop the “distancing effect,” part of a genre he called “epic theater.” In a play in this language, Kattrin, Eilif, and Swiss Cheese are all killed during the Thirty Years War. For 10 points, name this language of Friedrich Dürrenmatt, Peter Weiss, and Bertolt Brecht.  
ANSWER: **German** [or **Deutsch**]  
*<Literature European - French>*

3. Caroline Humprey and John Laidlaw concluded that rituals have no core meaning after observing Jains performing this sort of action in Jaipur. The reformist Sthanakvasi **(STAH-nak-VAH-see)** sect of Jainism does *not* perform these rituals. The defeat of the demon Mahishasura is commemorated by a multi-day ritual of this kind, whose end coincides with Dussehra or Vijaya Dashami. The term *dhupa* refers to the use of incense during these rituals. Food is often distributed as *prasad* **(pruh-SAHD)** after being sacrificially offered during these rituals, which are often performed in front of idols called *murtis*. One of these rituals honoring Durga is popular in east India, and one honoring Lakshmi is performed during Diwali. For 10 points, name this popular kind of devotional worship often performed in Hinduism.  
ANSWER: ***puja****s* [or ***pujo****s*; prompt on worshipping idols or worshipping *murtis* until “idols”; prompt on worship until “Sthanakvasi”]  
*<RMP Non-Christian/Bible Religion - Kothari>*

4. A mutation in a receptor for this compound can cause Jansen's metaphyseal chondrodysplasia. In FHH, levels of this compound are typically normal despite loss of function mutations to the CaSR gene. The binding of this compound to its 1R receptor stimulates production of RANKL, which binds to RANK and inhibits the production of OPG. This compound upregulates the activity of 1-α-hydroxylase in the kidneys to convert calcifediol to calcitriol, the active form of Vitamin D. In addition to its primary effect, this compound increases renal phosphate excretion. This hormone is secreted by chief cells in its namesake gland, and its action is opposed by calcitonin. Despite the fact that this hormone acts on osteoblasts, its effect is to increase blood calcium levels. For 10 points, name this hormone that is secreted by four glands on the back of the thyroid.  
ANSWER: **parathyroid** hormone [or **PTH**]  
*<Science Biology - Rombro>*

5. In this work, a fight that almost breaks out when a hero is accused of being a coward is stopped by a song about how all things were created. This work describes a society in which all the women on an island killed all the menfolk. In this work, a hero kills one of his allies because they fought in the dark and could not recognize each other. In this epic poem, an enchanted piece of Dodonian oak wood talks to the heroes. The son of the Sun offers a hero from this epic poem tasks that include sowing dragon's teeth and fighting the men that spring from where the teeth were sown. At the beginning of a journey in this epic poem, Heracles is included in its central group, but later leaves because, according to Glaucus, he has other matters to attend to. For ten points, name this epic poem by Apollonius Rhodius named after a ship, in which Jason searches for the Golden Fleece.  
ANSWER: ***Argonautica***  
*<RMP Greek/Roman Myth - Jankov>*

6. This item is considered a “pure signifier” in a lecture on “repetition automatism” that Barbara Johnson fused with another thinker's conclusion that this item's “proper place ... is the place of castration.” This object is replaced by another of the same type that references Propser Crebillon's *Atrée et Thyeste*. Lacan and Derrida feuded over the meaning of this object, which prompts a Prefect to order the legs of all the furniture in a hotel removed. To hide his eyes, a man wears green glasses when he attempts to take this object. The author wrote that his best tale of “ratiocination” is one in which this item is stolen back from Minister D after D reseals it and hides it in plain sight. For 10 points, name this epistle found by the central detective of the last C Auguste Dupin story by Edgar Poe.  
ANSWER: the **purloined letter** [prompt on letter; prompt on putative synonyms such as epistle or piece of paper]  
*<Literature American - Smith>*

7. According to a biography by his driver, Joseph Schott, this man banned his drivers from turning left on car trips. A break-in at an office in Media, Pennsylvania exposed several secrets hidden by this man, thus greatly reducing his power. This man is the only civil servant to have lain in state in the U. S. Capitol. This man's successor, L. Patrick Gray, was misled about the location of the so-called “d-list” by this man's secretary, Helen Gandy. Anthony Summers' biography of this man suggested that he had pursued a sexual relationship with his deputy, Clyde Tolson. His capture of Louis Lepke was aided by his personal friendship with journalist Walter Winchell. This man created COINTELPRO and encouraged subordinates to delve into the private life of Martin Luther King Jr and public figures with suspected communist links. For 10 points, name this first director of the FBI.  
ANSWER: J. Edgar **Hoover**  
*<History American (1945-present) - Jackson>*

8. These systems can be treated by heating them and feeding them through a membrane module in pervaporation techniques. The temperature where these systems exist is called the Bancroft point. Three or more constituents are required to form the saddle variety of these systems, which can also be classified as positive or negative. The volatility of one substance in these systems can be affected with an entrainer, such as cyclohexane in the classic example of these systems that is 96% ethanol and 4% water. These systems, like 68% nitric acid 32% water, can be further purified with dehydrating agents such as sulfuric acid. These systems violate Raoult's law and have identical mole fractions for both vapor and liquid components. For 10 points, name these solutions which distill at a constant temperature without changing composition, requiring more advanced distilling techniques.  
ANSWER: **azeotrope**s  
*<Science Chemistry - Etzkorn>*

9. One of this man's writings details the story of a woman who, after her infant son was brained on a tree and she was kidnapped, used a hatchet to scalp ten people in their sleep. Benjamin Franklin's choice of the pen name Silence Dogood was taken from the title of this man's *Bonifacius: Essays to Do Good*. Hannah Dustan gave details of her captivity by the Abenaki to this man, who included her tale in his *Magnalia Christi Americana*. A bomb was thrown through this man's window with a note attached reading “I'll inoculate you with this” after this man's slave, Onesimus, taught him about variolation and he encouraged its adoption during a smallpox epidemic. This man and his father, Increase, who had rejected the use of “spectral evidence”, were later denounced for their involvement in the Salem Witch Trials. For 10 points, name this Massachusetts Puritan preacher.  
ANSWER: Cotton **Mather**  
*<History American (pre-1865) - Jackson>*

10. A businessman in this city required developers to build houses with stone façades around its Viau **(vee-OH)** biscuit factory, which produced a chocolate-coated marshmallow cookie called the Whippet. The Lachine Canal through this city was financed by Scottish-born businessman John Redpath, whose son endowed its Redpath Museum of Natural History. The Iroquoian village of Hochelaga was once located near the current location of the world's tallest inclined tower in this city's Olympic Park. Buckminster Fuller designed a Biosphere and Moshe Safdie designed a Habitat for this city's Expo 67. This city is the only one in its country to have hosted the Summer Olympics, which it did in 1976. St. Laurent **(SAHN loh-RAHN)** Boulevard divides the historically English- and French-speaking sides of this city, which lies on an island in the St. Lawrence River and was founded by Jacques Cartier. For 10 points, name this largest city in Québec.  
ANSWER: **Montréal**  
*<Geography US - Kothari>*

11. A book about this view recounts a story of a man giving four shillings to any who ask in a section on “expropriation”. One work espousing this broad philosophy begins with a series of “broadsheets” describing figures like Hassan-i-Sabbah and posits “pirate utopias” as examples of the title concept. That work was written by Hakim Bey, a follower of this philosophy. Murray Bookchin derided one form of this philosophy as “lifestyle,” arguing against an individualist form of this philosophy promoted by Max Stirner. Johann Most, a proponent of this political philosophy, wrote *The Science of Revolutionary Warfare*, and coined the phrase “propaganda of the deed.” An early text on this philosophy was critiqued by Marx in *The Poverty of Philosophy*. For 10 points, name this political philosophy espoused by Peter Kropotkin and Pierre-Joseph Proudhon, which advocates for the dissolution of government.  
ANSWER: **anarchism** [accept word forms; accept individualist **anarchism**, ontological **anarchy**, or **anarcho-communism**; do not accept or prompt on “communism”]  
*<RMP Philosophy/Thought - Lucas>*

12. A tabernacle center depicting the Madonna and Child with angels was painted by an anonymous artist from this city known as the “Master of Monte Oliveto.” A cross-eyed, horned tyrant appears in a series of frescos in this city painted in its town hall. A woven cord connects the scales of Justice to one of the two title figures in that series, this city's *Allegory of Good and Bad Government*. This city, which was home to Ambrogio Lorenzetti and Simone Martini, was home to an artist who painted detailed patterns on the throne and curtain depicted in front of a gold background in his *Rucellai Madonna*. That artist painted scenes from the *Life of the Virgin* and the *Life of Christ* on the reverse of an altarpiece depicting the Madonna and Child enthroned with angels and saints, his *Maestà*. For 10 points, name this Italian city home to Duccio, a rival of Florence.  
ANSWER: **Siena**  
*<Arts Painting - French>*

13. When addressing this character, the speaker says that his brother Maurice lies still in the hay with “my knife...in his side” to explain why this character should “look your last at me, / For I come home no more.” This character was given the surname Hearsay in the original title of a collection that includes “Farewell to barn and stack and tree.” In another poem addressed to this character, he is reprimanded for trying “to rhyme / Your friends to death before their time.” In that poem, this character hears the story of a king who survives eating arsenic and drinking strychnine. A narrator complains of this character that “the verse you make, / It gives a chap the belly-ache” before telling this character that “Malt does more than Milton can / to justify God's ways to man”. For 10 points, name this character who “eats [his] victuals **(“vittles”)** fast enough” in an A.E. Housman poem that complains “this is stupid stuff.”  
ANSWER: **Terence** Hearsay [accept “**Terence, this is stupid stuff**”]  
*<Literature British Non-Shakespeare - Smith>*

14. According to the Birch and Swinnerton-Dyer conjecture, this number will be the rank of an elliptic curve whose L-function has a simple pole. Although they are commonly denoted by a **(emphasize)** *different* number, this is the **(emphasize)** *number of elements* in both the first and last entries in a short exact sequence. This number is the class number of any principal ideal domain. The Riemann hypothesis may be proven with the use of a hypothetical structure called the “field” with this many elements. This is the size of the largest conjugacy class of any elliptic curve group, as well as any abelian group. The fundamental group of any simply-connected space has this many elements. A simple group has this many proper normal subgroups. The smallest possible group has, for 10 points, what number of elements, which is also the number of identity elements in any group?  
ANSWER: **one**  
*<Science Math - French>*

15. A study of speakers of this language found that workers at private corporations exhibited more gendered speech patterns than workers at state-owned enterprises. In the capital of a country that speaks this language, men frequently imitate a stock character called the “smooth operator” by rhoticizing the final vowel of their sentences. Lower class status is signified in this language by the “old hundred names.” The most common romanization scheme for this language eliminated the aspiration marks used by a prior scheme and uses the letter “c” to signify the sound “ts” and the letter “q” to signify the sound “ch”. That scheme for romanizing this language replaced the Wade-Giles system. This is the world's most commonly spoken tonal language. For 10 points, name this language with Tianjin and Beijing dialects.  
ANSWER: **Mandarin** Chinese [prompt on Chinese; accept ***putonghua***]  
*<Social Science Linguistics/Languages - Myers>*

16. A controversial headline about an incident at one of these events reading “THE TRUTH” falsely alleged that “brave cops” were “urinated on.” Boris Johnson apologized for a *Spectator* editorial that bizarrely mentioned one of these events after the death of hostage Kenneth Bigley in Iraq. The Taylor Report blamed an incident at one of these events on “the failure of police control,” while making a recommendation that buildings should switch to an “all-seater model.” Thirty-nine people were crushed to death after a wall collapsed at one of these events in the Heysel disaster. Beginning in the 1960s, the “English disease” began to refer to English people's behavior during this activity, which was being played during the 1989 Hillsborough disaster. For 10 points, violent altercations caused by “hooliganism” have historically marred what sport in the U.K.?  
ANSWER: association **football** games [or **soccer** games; accept answers involving an accident, riot, or disaster at a **football** or **soccer** game; prompt on sporting events]  
*<History European 1914-present - Cheyne>*

17. This country inspired the recurring *moto perpetuo* figures in a D minor concerto for two pianos whose closing rondo imitates this country's music. The Aeolian mode of a *Assez vif, tres rhythme* movement's first theme references this country's colotomic music; that movement is in a quartet that was inspired by an earlier piece in the same genre in G minor. The Voyager Golden Record includes a *ketawang* from this country titled *Puspawarna*. The *Gnossiennes* of Erik Satie were inspired by a musical form from this country that uses heptatonic *pelogs* and pentatonic *slendros*. That music from this country is played to accompany *wayang* shadow-puppet shows by large percussion ensembles, and also inspired the *Estampes* of Debussy, including his “Pagodes.” For 10 points, name this country whose *gamelan* ensembles come in Balinese and Javanese varieties.  
ANSWER: Republic of **Indonesia** [or Republik **Indonesia**]  
*<Arts Music - Smith>*

18. This author recounted a Swiss writer's body being found in the snow near a sanatorium in an article on the “Genius of Robert Walser'“ A recurring character created by this author tries to set up a blind date between a woman at a hospital and a French expat who has just had his right leg amputated. This author created a fictional female alter-ego who rewrites *Ulysses* from the perspective of Molly Bloom. The fictional author of *The House on Eccles Street* features in this author's novels *The Lives of Animals* and *Elizabeth Costello*. In another of this author's novels, the protagonist moves to his daughter Lucy's farm after scandalously sleeping with his student Melanie Isaacs. A novel by this author chronicles the life of the title harelipped gardener, Michael K. For ten points, name this South African author of *Disgrace* and *Waiting for the Barbarians*.  
ANSWER: John Maxwell **Coetzee**  
*<Literature World - Krol>*

19. It's not related to elasticity, but when studying a regime named for this scientist, calculations can be simplified using potentials that satisfy the biharmonic equation in the Papkovich-Neuber technique. This scientist names the aforementioned flow regime which minimizes dissipation for given boundary conditions. This scientist who also names the 'creeping flow' regime, in which inertial forces are neglected, names the law stating '6 pi mu a U' is the drag on a sphere moving in a viscous fluid. This scientist is the second namesake of a result that reduces to the Euler equation when the term 'mu times the Laplacian of velocity' is neglected. That equation of which this scientist is the second namesake is hard to solve in turbulent conditions. For 10 points, name this Irish-born scientist who co-names the fundamental equations of fluid mechanics with Claude-Louis Navier.  
ANSWER: George Gabriel **Stokes**  
*<Science Physics - Krol>*

20. One rebellion that attempted to restore this kingdom was preceded by the killing of white domestic animals and was defeated at the battle of Mome **(mo-MAY)** Gorge. In a novel about the founder of this kingdom, he is visited at a river by a witch doctor who offers him unlimited power. One ruler of this kingdom had his son taken hostage on St. Helena after losing a war to Lord Chelmsford. The Bambatha Rebellion attempted to restore this kingdom, whose modern incarnation is led by King Goodwill Zwelithini. This kingdom's defeat at the Battle of Blood River caused the death of two rival claimants to the throne of its king, Dingane. A solar eclipse appeared to the ruler of this kingdom prior to his victory at the Battle of Isandlwana. The founder of this kingdom founded an army whose soldiers replaced the *assegai* spear with the more efficient *iklwa*. For 10 points, name this kingdom established by Shaka.  
ANSWER: **Zulu** Kingdom [accept **Zulu**land or kwa**Zulu**]  
*<History World - Myers>*

21. In his memoirs, one author described ending his friendship with this woman after hearing her say “Don't, please don't. I'll do anything” through a door and described this woman as looking “like a Roman emperor”. This woman claimed to have avoided a Harvard psychology exam by telling William James that she didn't feel like taking it. In the work in which that claim appears, this author describes her maid's hatred for Henri Matisse. In one work, this woman recounts hearing an auto mechanic describe his apprentice as part of a “lost generation”. In one work by this author, the narrator is described as “the wife of a genius” and describes assisting this author in typing her Cubist poetry manuscripts and having the motto “a rose is a rose is a rose” stitched into this author's pillowcases. For 10 points, name this author who wrote an “autobiography” narrated by her partner, Alice B. Toklas.  
ANSWER: Gertrude **Stein** [the clues not drawn from *The Autobiography of Alice B. Toklas* are from *A Movable Feast*]  
*<Literature American - Myers>*

**2019 National All-Star Academic Tournament**

**Round 4 – Bonuses**

1. *Two-part answer required* While doing this action with this person, one man received the threat “stop calling me a crypto-Nazi, or I'll sock you in the face”. For 10 points each:  
[10] Another man remarked that he was “in the position of a kind of Jeremiah” while promoting his position that “the American dream is at the expense of the American negro” at an event at Cambridge during which he did this thing with this person.  
ANSWER: **debating** William F. **Buckley**, Jr. [accept synonyms of **debate**, prompt on partial answer with “with whom?” if “debating” is given and “what happened?” if only “Buckley” is given]  
[10] This rival of Buckley and author of *Myra Breckenridge* was the target of the first threat; this gay author aroused controversy by depicting a same-sex relationship in his *The City and the Pillar*.  
ANSWER: (Eugene Luther) Gore **Vidal**  
[10] By consensus, this black intellectual defeated Buckley in their Cambridge debate. This author of *Notes of a Native Son* and *The Fire Next Time* himself depicted a gay love affair in *Giovanni's Room*.  
ANSWER: James **Baldwin**  
*<Literature American - Smith>*

2. The soloist's glissando from an altissimo G up to C closes this man's concerto for clarinet and jazz orchestra, which he performs in Fred Astaire's *Second Chorus*. For 10 points each:  
[10] Name this bandleader who popularized “Begin the Beguine” despite his hate of “asinine” Tin Pan Alley music. This early Third Stream musician added Billie Holiday to his band in 1938.  
ANSWER: Artie **Shaw** [or Arthur Jacob **Arshawsky**]  
[10] Artie Shaw's big band played this genre of jazz, whose *Era* titles a book by Gunther Schuller. Schuller praised a “prophetically” titled Duke Ellington piece that claims “It Don't Mean a Thing” if “It Ain't Got” the quality that names this style of jazz.  
ANSWER: **swing** [accept *The* ***Swing*** *Era*; accept “It Don't Mean a Thing (If It Ain't Got That **Swing**)”]  
[10] “Begin the Beguine” composer Cole Porter included “I Hate Men,” “You're the Top,” and “I Get a Kick Out of You” in this musical. This musical is an adaptation of *The Taming of the Shrew*.  
ANSWER: ***Kiss Me, Kate***  
*<Arts Jazz - Smith>*

3. Andrew Lo's “adaptive” hypothesis attempts to combine theories based on this hypothesis with behavioral economics. For 10 points each:  
[10] Name this hypothesis, developed by Eugene Fama. It argues that the market cannot be beat in the long run, because the current price of a stock already reflects all available information.  
ANSWER: **efficient-market** hypothesis [or **EMH**]  
[10] Those in favor of the efficient-market hypothesis typically also support the hypothesis that states that share prices behave like one of these processes. That hypothesis was popularized by Burton Malkiel's 1973 book titled for one of these processes “down Wall Street.”  
ANSWER: **random walk**  
[10] If you believe either the efficient-market hypothesis or the random walk hypothesis, then you should invest in an index fund, such as the Dow Jones Industrial Average or this index of 500 large companies.  
ANSWER: **S&P** 500 [or **Standard & Poor's**]  
*<Social Science Economics - French>*

4. When estimating one of these functions with a kernel, the Epanechnikov kernel asymptotically minimizes the mean integrated squared error. For 10 points each:  
[10] Name these functions. A simple way of estimating one of these functions is to set the estimator to be constant within each bin of a normalized histogram.  
ANSWER: probability **density** function [or **PDF**]  
[10] The y-axis of the histogram needs to be normalized to form a density estimator because the integral of the density over its domain must evaluate to this number, since this is always the total probability of the entire space.  
ANSWER: **one**  
[10] When using kernel density estimators, the subscript *h* of the kernels *Kh* **(K-sub-h)** refers to a smoothing parameter of this name. In a different context, the Nyquist rate equals two times a parameter of this name and must be finite to apply the Nyquist-Shannon theorem.  
ANSWER: **bandwidth**  
*<Science Math - Morrison>*

5. Bart Ehrman has argued that a “legend” possibility should be added to an argument popularized by this man. For 10 points each:  
[10] Name this British author who popularized a trilemma argument for the divinity of Jesus by offering that Jesus was either a lunatic, liar, or Lord. He also wrote *The Screwtape Letters* and *The Chronicles of Narnia*.  
ANSWER: C. S. **Lewis**  
[10] Lewis presented his version of that trilemma in the BBC radio talks that became this book about the fundamentals that all members of a broad religious group should agree on.  
ANSWER: ***Mere Christianity***  
[10] Lewis' own conversion story was laid out in this book titled for a Wordsworth poem. According to Lewis, its title emotion is the best translation of the euphoric *Sehnsucht* he experiences “stabs” of before his conversion.  
ANSWER: ***Surprised by Joy****: The Shape of My Early Life*  
*<RMP Christian/Bible Religion - Smith>*

6. Regina begins an affair with her professor's wife Martha in a novel titled for this activity by Susan Choi. For 10 points each:  
[10] Name this activity. Malala Yousafzai's autobiography is subtitled “The Story of a Girl Who Stood Up for [this activity] and was Shot by the Taliban.”  
ANSWER: **education**  
[10] This earlier author recounted the 1900 Paris Exposition in “The Dynamo and the Virgin,” a chapter of the third-person autobiography titled for his “Education.”  
ANSWER: Henry **Adams**  
[10] This author included the oft-excerpted chapter “Aria” in his autobiography *Hunger of Memory*, which is subtitled for his “Education.”  
ANSWER: Richard **Rodriguez**  
*<Literature American - French>*

7. The “third generation” of these chemicals may make use of juvenile hormones such as methoprene. For 10 points each:  
[10] Name these chemicals. Chlorine-substituted hydrocarbons are no longer used as these chemicals, since they possess far more adverse effects than organophosphide alternatives like malathion.  
ANSWER: **insecticide**s [prompt on pesticides]  
[10] This chlorine-substituted insecticide was banned in the United States after the publication of *Silent Spring*, since it thinned the eggshells of bald eagles and other birds.  
ANSWER: **DDT** [or **dichlorodiphenyltrichloroethane**]  
[10] An early insecticide was this naturally-occurring molecule with formula “C-ten-H-fourteen-N-two.” This molecule consists of a pyridine bonded to a methylated pyrrolidine.  
ANSWER: **nicotine**  
*<Science Chemistry - French>*

8. A woman from Aleppo named Maryam was named for her prowess at making these things. For 10 points each:  
[10] Name these items that were the subject of a treatise subtitled “bread and milk for children” and written in Middle English for its author's son, Lewis. They were centered on two plates called a *rete* and a *mater*.  
ANSWER: **astrolabe**s [accept Maryam **al-Astrulabi**]  
[10] *Two answers required* These two people had a child named Astrolabe after a love affair that ended in one of these people's uncle Fulbert castrating the other. Computer analysis has shown that a series of letters between these two people may have actually been written by one of them to himself.  
ANSWER: Peter **Abelard** and **Heloise** [accept Pierre for Peter]  
[10] This city's cathedral contains an early sculptural depiction of an astrolabe, and is located near a tower whose upper floors curve leftward in an unsuccessful attempt to rectify an incident of soil subsidence.  
ANSWER: **Pisa**  
*<History European to 1400 - Myers>*

9. A man enticed by a vision of Cleopatra is saved from Chernobog by one of these events in a scene from *Mlada* adapted from a tone poem that ends with one of these events. For 10 points each:  
[10] Name this kind of event signaled by a gong crash and solo oboe near the end of a tone poem which uses the xylophone to depict rattling bones.  
ANSWER: **sunrise** [or clear equivalents]  
[10] That piece is this tone poem by Camille Saint-Saens that uses a harp to represent the stroke of midnight.  
ANSWER: ***Danse Macabre***  
[10] *Danse Macabre*'s twisting of the Dies Irae was presaged by this “paraphrase on Dies Irae.” A standard version of this piece was edited by Emil von Sauer, although Ferruccio Busoni also prepared a *De Profundis* version.  
ANSWER: ***Totentanz*** [by Franz Liszt]  
*<Arts Music - Smith>*

10. This woman's activism may have been inspired by her upbringing by a mother who believed she was Queen Victoria. For 10 points each:  
[10] Name this activist who heard God tell her to “go to Kiowa” and that “I'll stand by you” in Medicine Lodge, Kansas, and was killed in 1911 by a woman whose business she was attacking.  
ANSWER: Carry A. **Nation**  
[10] Nation was an activist for this cause, which was accomplished in 1920 by the 18th amendment, which gained its enforcement powers from the Volstead Act.  
ANSWER: **prohibition** of alcohol [accept, but do not reveal, **temperance**]  
[10] Nation's violent tactics contrasted with this organization founded in Hillsboro, Ohio, which was led by Frances Willard.  
ANSWER: **W**omen's **C**hristian **T**emperance **U**nion  
*<History American (1865-1945) - Myers>*

11. Enkidu describes one of these things to Gilgamesh that happened to him in a dream in which he was dragged to the Underworld by a man with a lion's head and eagles' talons. For ten points each:  
[10] Name this Greek word and mytheme used in comparative mythology to describe trips to the Underworld. People who undergo them include Odysseus, Orpheus, and Enkidu.  
ANSWER: **katabasis**  
[10] Lemminkainen, one of the heroes of the Kalevala, is rescued from this place by his mother, who uses a rake to retrieve his body parts from the river in this place, the Finnish Underworld.  
ANSWER: **Tuonela**  
[10] Anchises shows the main character of this work all of the future leaders of Rome while they are in the Underworld. The title character of this work leaves Dido and sees her in the Underworld, but she does not talk to him.  
ANSWER: the ***Aeneid***  
*<RMP Non-Greek/Roman Myth - Jankov>*

12. The characters in this novel walk past signs in the street that say “Keep the Water White.” For 10 points each:  
[10] Name this 1956 novel, the first to document the so-called “Windrush generation” in the title city. This novel follows the Trinidadian immigrant Moses Aloetta and is the most famous work of Samuel Selvon.  
ANSWER: *The* ***Lonely Londoners***  
[10] *The Lonely Londoners* was written in what Kamau Brathwaite calls a “nation language,” since it is a Caribbean-specific form of this language. Other writers that have written in non-standard forms of this language include Louise Bennett and James Whitcomb Riley.  
ANSWER: **English**  
[10] Although Samuel Selvon is often considered the first author to publish a work in a “nation language,” Brathwaite attributes that feat to this much-earlier author. This author wrote the essay *De vulgari eloquentia*, and he pioneered a poetic form in which three-line stanzas are linked by rhymes in alternating lines.  
ANSWER: **Dante** Alighieri  
*<Literature British Non-Shakespeare - French>*

13. This man was a dandy in London nicknamed “Jessamy John” before he escaped prison and fled the country after killing a man in a duel. For 10 points each:  
[10] Name this financier who laid out his theories in the pamphlet “Money and Trade Consider'd” and began printing banknotes using his General Bank to finance the purchase of shares in his Company of the West.  
ANSWER: John **Law**  
[10] John Law's Company of the West eventually amassed a stock value of more than twice France's GDP before crashing in a bubble named for this river, which ran through the colony the Company of the West was founded to trade with.  
ANSWER: **Mississippi** Bubble  
[10] The Mississippi Bubble collapsed under the reign of this king, who delegated much of the running of his empire to his mistress, Madame de Pompadour. This king had just succeeded a monarch nicknamed the “Sun King”, his father.  
ANSWER: **Louis XV** [prompt on Louis]  
*<History European 1400-1914 - Myers>*

14. This thinker borrowed the Pyrrhonist concept of *epoché* **(eh-po-KAY)** for his technique of bracketing, or suspending belief. For 10 points each:  
[10] Name this philosopher who outlined his concept of “lifeworld,” or the collectively experienced universe. He also fused psychologism with mathematics in *The Philosophy of Arithmetic*, but later rejected psychologistic thinking in his later book *Logical Investigations*.  
ANSWER: Edmund Gustav Albrecht **Husserl**  
[10] Husserl referred to his methodology with this term, which was later applied to the school of philosophy he founded. Earlier, Hegel wrote a book titled for “this term” *of Spirit*.  
ANSWER: **phenomenology**  
[10] This Christian philosopher later combined phenomenology with existentialism. This author of *The Mystery of Being* disliked Sartre so much that he labeled his philosophy “neo-Socratism” in order to avoid being associated with him.  
ANSWER: Gabriel Honoré **Marcel**  
*<RMP Philosophy/Thought - McLain>*

15. When these forces are very strong, they can result in spaghettification. For 10 points each:  
[10] Name these forces, which are caused by a gradient in the gravitational field. These forces cause namesake “heating” on Jupiter's moon Io and cause orbital locking in many other systems.  
ANSWER: **tidal** forces  
[10] The tidal force varies inversely with this function of distance, since it is the differential of the gravitational force  
ANSWER: **cube** [or **three** or **third** power; accept **inverse cube** law]  
[10] Earth's oceanic tides are caused by the tidal forces generated by this celestial body, which orbits the Earth and was produced by a massive impact in the big splash hypothesis.  
ANSWER: Earth's **moon**  
*<Science Astronomy - French>*

16. This artist was trained by Theophanes the Greek, and he collaborated with Daniel Chorni on his two most famous works. For 10 points each:  
[10] Name this artist whose *Trinity* depicts three people telling Abraham about the impending birth of his son, whose identities were disputed before being resolved at a 1551 council. He also created a painting of *Christ* for the Dormition Cathedral.  
ANSWER: Andrei **Rublev**  
[10] Rublev was a famous painter of these objects, which are used in Orthodoxy as aids to worship. These objects frequently depict saints and were destroyed by Emperor Leo III during a namesake “clasm.”  
ANSWER: **icon**s  
[10] One painting by this later artist centers on an icon carried in a gilded shrine. That painting by this artist depicts a priest in golden robes and a hunchbacked boy trying and failing to enter the title *Religious Procession in Kursk Province*.  
ANSWER: Ilya **Repin**  
*<Arts Painting - Myers>*

17. This character takes pleasure in operating a newly acquired gramophone to play excerpts from works like *La Traviata* and *The Tales of Hoffmann*. For 10 points each:  
[10] Name this character whose visit to a Swiss Alps sanatorium to see his tubercular cousin Joachim Ziemssen is prolonged by his own failing health.  
ANSWER: **Hans** **Castorp** [accept either or both underlined parts]  
[10] In a lecture given at Princeton, this German creator of Hans Castorp spoke of Wagnerian influences, including the use of leitmotifs, in his novels like *Buddenbrooks* and *The Magic Mountain*.  
ANSWER: Thomas **Mann**  
[10] A leitmotif used in *The Magic Mountain* is Castorp borrowing a pencil. He does this once from a childhood schoolmate with “Kirghiz eyes,” and once from this Russian patient, his romantic interest in the novel.  
ANSWER: **Clawdia** **Chauchat** [accept either or both underlined parts]  
*<Literature European - Suh>*

18. An economics professor and supporter of this cause named Clara Ponsati was controversially extradited from Scotland under the terms of the 1351 Treason Felony Act for “levying war against her Majesty.” For 10 points each:  
[10] Identify this cause vigorously opposed by Spain's Prime Minister Mariano Rajoy.  
ANSWER: **Catalan independence** [or **independence** of **Catalonia**; prompt on things like greater autonomy for Catalonia]  
[10] Scotland, like Catalonia, has sought increased autonomy from the central government. In the UK, this term refers to the UK parliament granting powers to the national assemblies of Scotland, Wales and Northern Ireland.  
ANSWER: **devolution**  
[10] This President of the European Council and former head of the Civic Platform party spoke out against the Catalan declaration of independence in 2017.  
ANSWER: Donald **Tusk** [or Donald Franciszek **Tusk**]  
*<Current Events Non-US - Bentley>*

19. When it isn't binding to Vitamin D, Vitamin D binding protein can bind to and sequester this protein. For 10 points each:  
[10] Name this protein that is “scavenged” from the blood after cell death by gelsolin and other similar proteins. VASP and Arp2 can bind to this protein in platelets.  
ANSWER: **actin**  
[10] Actin is scavenged in part to reduce its propensity to cause this process in the blood. Actin binding proteins allow platelets to change their shape to begin this process, which is inhibited or non-present in people afflicted with hemophilia.  
ANSWER: blood **clot**ting [or **coagulation**]  
[10] This serine protease binds to PAR receptors on platelets to activate their aggregation during blood clots. This protein, which is formed through the action of Factor Xa, also converts fibrinogen to fibrin during blood clots.  
ANSWER: **thrombin**  
*<Science Biology - Shanmugam>*

20. A set of this number of “great campaigns” included two attacks on the Gurkhas and a genocidal campaign to overthrow the leader of the Dzungars. For 10 points each:  
[10] Name this number, which also named a group of “regular attendants” who dominated the politics of the late Han Dynasty.  
ANSWER: **ten** [accept **shi**]  
[10] This emperor launched the Ten Great Campaigns in addition to receiving the Macartney Mission from Britain and suppressing the White Lotus Rebellion. He abdicated so that the length of his reign would not surpass that of his grandfather, Kangxi.  
ANSWER: **Qianlong**  
[10] The Ten Regular Attendants were a group of these people, who had a traditional rivalry at the Chinese court with “Mandarins” and were employed on the theory that they would look out for the emperor's interest first since they could have no children.  
ANSWER: **eunuch**s  
*<History World - Myers>*

21. You are a molecular geneticist trying to create a phylogeny. Answer some questions about things you might have to do, for 10 points each:  
[10] Once you have a set of cleaned DNA sequences, you can turn them into a matrix by using an algorithm that performs this task, as implemented by software like Clustal. This task arranges sequences in a way that allows users to identify their differences.  
ANSWER: sequence **align**ment  
[10] You might then need to select one of these mathematical constructs that describes the rate at which each nucleotide is replaced by another. Generalized Time-Reversible is among the most common of them, while Jukes-Cantor is the simplest.  
ANSWER: **substitution** model [or **substitution** matrix; or **model** of molecular **evolution**; or **model** of DNA sequence **evolution**]  
[10] You need a substitution model when inferring phylogenies using either maximum likelihood estimation or a method based on this theorem. It gives the probability of an event A conditional on B in a way that relates to the prior probability of B.  
ANSWER: **Bayes**' theorem [or **Bayes**' rule]  
*<Science Biology - Kothari>*