**2019 National All-Star Academic Tournament**

**Round 2 – Tossups**

1. The Harvard historian Caroline Elkins published a history of this conflict that exposed the existence of a network of slave labor camps opened during it. After the government banned its central organization, one side in this conflict formed criminal fraternities called *mungiki*. Plantations in the White Highlands were targeted for attacks in this conflict. One side in this conflict was led by Governor Evelyn Baring. Rawson Macharia was a key witness at the trial of the Kapenguria Six, who were convicted during this conflict. One side in this conflict gained new members in oathing ceremonies that used chicken blood. That side in this conflict was an offshoot of the Kikuyu Central Association. For 10 points, name this rebellion against British rule in 1950s Kenya.  
ANSWER: **Mau Mau** Uprising  
*<History World - Myers>*

2. The political scientist Michael Bitzer is the leading expert in his field on this state's politics. In February, Judge G. Bryan Collins ruled that this state's legislature was illegitimate and thus lacked the authority to pass constitutional amendments. This state's Representative Walter Jones was, until his death, the most moderate Republican member of congress relative to his district's partisan composition. One candidate in this state won a primary against incumbent Robert Pittenger with the help of the political consultant McCrae Dowless, who was later arrested for election fraud. That candidate, Mark Harris, had his victory over Dan McCready overturned in 2019. This state's former governor, Pat McCrory, lost re-election after passing a discriminatory “bathroom bill.” For 10 points, name this state where Governor Roy Cooper has been opposed by a Republican legislature.  
ANSWER: **North Carolina**  
*<Current Events US - Myers>*

3. In one short story by this author, a sailor-boy that helps the title character is described as her “red-haired familiar.” Near the end of one story by this author, the title character asserts, “A great artist… is never poor.” A woman in one story by this author fears that she had lent her father's house to a “witches’ sabbath” after she sees that her maid has ordered a tortoise. In that story by this author, a French refugee wins the lottery but decides to spend all of the money to prepare Martine and Philippa the title extravagant meal. This author of “Babette's Feast” collected her other short fiction in *Seven Gothic Tales*. In another work by this author, she narrates her experience owning a coffee plantation in Kenya with her husband. For 10 points, name this pseudonymous Danish author of *Out of Africa*.  
ANSWER: Isak **Dinesen** [or Karen **Blixen**]  
*<Literature European - French>*

4. Oscar Levant performed an arrangement of this piece for piano and orchestra in *The Barkleys of Broadway* after his efforts partly led *Newsweek* to proclaim 1948 the year of its composer due to this piece's popularity. In one suite, this piece was sandwiched between an adagio depicting carpet weavers and a “Hopak,” the former of which was popularized by *2001: A Space Odyssey*. In Nina Anisimova's original choreography, this piece serves as the climax to a triple wedding. A xylophone solo over strings in this piece is punctuated by trombone glissandi. The xylophone plays rapid F-sharp eighth notes to open this piece excerpted from a ballet set at a collective farm. For 10 points, name this fast-paced piece excerpted from *Gayane*, a ballet by Aram Khachaturian.  
ANSWER: “**Sabre Dance**” [accept “**Suserov par**” or “**Tanets s sablyami**”]  
*<Arts Music - Smith>*

5. Edward Soja borrowed the term “thirdspace” from a theorist native to this country, who is better known for arguing that culture is “continually in a process of hybridity.” Another thinker from this country argued for the use of “soul force” in politics as a way of “purifying” the oppressor. Those principles were central to a movement in this country which translates as “appeal to truth.” Another thinker from this country repackaged a Gramsci term for highly marginalized people in the title of an essay that asks if the “subaltern” can speak. That essay was prompted by the British destruction of all accounts of a practice in which this country's widows immolate themselves after their husband's death. For 10 points, name this country home to such political theorists as Homi K. Bhabha, Gayatri Spivak, and Mahatma Gandhi.  
ANSWER: Republic of **India** [or **Bharat** Ganarajya]  
*<RMP Philosophy/Thought - Smith>*

6. One algorithm for this task uses Wiedemann's algorithm to row-reduce a sparse matrix over the field with two elements. Another algorithm for this task reduces is it to the period-finding problem, which it then solves using a quantum Fourier transform. One algorithm for this task is based on the birthday paradox and iteratively applies a random polynomial until a value is repeated. Numbers for which this task is easy to compute are called “smooth.” This task, which can be performed using a quadratic sieve or Pollard's rho algorithm, can be computed efficiently on a quantum computer with Shor's algorithm. The difficulty of this task provides the security of RSA. Like primality testing, a naive algorithm for this task involves trial division. For 10 points, name this task in which an integer is decomposed into a product of primes.  
ANSWER: integer **factorization** [or prime **factorization**]  
*<Science Computer Science - French>*

7. This person and Robert Matthews were accused by the Folger family of killing Elijah Pierson with poisoned blackberries. While living in New York City, this person went to work as a housekeeper for radical preacher Prophet Matthias. While giving a speech in Silver Lake, Indiana, this woman bared her breast after accusations from the crowd that she was a man on account of her height. After becoming a Methodist and then a Millerite, this woman changed her name from Isabelle Baumfree. Marius Robinson published the only accurate version of a speech by this woman in the *Anti-Slavery Bugle* after transcribing it at a conference in Akron. Frances Gage altered the language of that speech by this woman to sound more like southern slaves despite the fact she was a native Dutch speaker and added the rhetorical question by which it was popularly known. For 10 points, name this abolitionist who gave the “Ain't I a Woman?” Speech in 1851.  
ANSWER: Sojourner **Truth** [accept Isabelle **Baumfree** before mention]  
*<History American (pre-1865) - Jackson>*

8. One goddess in this ethnicity's mythology was represented as either a plain white block or by a lion cradling a gazelle. A prayer dedicated to three of this ethnicity's goddesses was recited while walking around a sacred rock and ends by declaring that their “intercession is to be sought.” These people's mythology is detailed in *The Book of Idols*. In these people's folklore, demons called ghouls try to lure people to their death. A Baetylus commonly thought to be a meteorite was located at one of these people's temples, which was home to 360 idols including Hubal, Allat, and Manat. These people's mythology includes shapeshifting beings made of smokeless fire known as the Djinn. The Kabba was central to the idol worship of, for 10 points, what ethnicity whose Quraysh tribe was centered on the city of Mecca?  
ANSWER: **Arab**s [accept word forms; accept **Quraysh** before mentioned; prompt on Semitic people]  
*<RMP Non-Greek/Roman Myth - Hijazi>*

9. A poet who spent most of his life in this country addresses “strange men who were not men” in a poem that compares Europeans to the title “Vultures” in the collection *Pounding*. One author from this country wrote a novel formatted as a book-length letter written by the protagonist to her sister after her husband's death. That author from this country is Mariama Ba. A poet from this country wrote the collections *Shadow Songs* and *Nocturnes*, and wrote about a woman “clothed with your colour which is life” in his poem *Black Woman*. One author from this country wrote about Bakayoko giving an impassioned speech against overseers during a railway strike. Another author from this main setting of *God's Bits of Wood* by Ousmane Sembene collaborated with Aime Cesaire to found the Negritude movement, before becoming this country's first president. For ten points, name this home country of Leopold Senghor.  
ANSWER: Republic of **Senegal**  
*<Literature World - Krol>*

10. The BFB mechanism creates this stage's namesake bridges as a result of missing telomeres, which causes sister chromatids to fuse together. The FEAR and MEN networks activate the protein phosphatase Cdc14 during this stage. Progression to this stage is partly regulated by the localization of Mad2 to unattached kinetochores forming a critical part of the spindle assembly checkpoint. PLK-1 phosphorylates a protein complex responsible for the degradation of securins and cyclins marking the transition to this stage. That degradation process is carried out by the E3 ubiquitin ligase activity of APC, which requires Cdc20 for activation. The lengthening of polar microtubules and shortening of kinetochore microtubules triggers the segregation of sister chromatids towards opposite ends of the cell during this stage. Metaphase precedes, for 10 points, what stage before telophase in mitosis?  
ANSWER: **anaphase**  
*<Science Biology - Rao - Pothuraju>*

11. This artist designed nine floating heads which appear on either side of a painting of *The Holy Family with Saint Anne* by Baciccio. Baciccio also painted a portrait of this artist in old age wearing black against a black background with his iconic T-shaped facial hair. This artist placed a sculpture of Ludovica Albertoni beneath those floating putti heads in the Altieri chapel. This artist restored a sculpture from the Circus of Maxentius above which he placed the Pamphili family's symbol of a dove holding an olive twig in an installation for the Piazza Navona. For the Cornaro chapel, this artist sculpted a short angel on the left raising the robe of the title saint while aiming an arrow at her. For 10 points, name this Italian sculptor whose ability to include texture in his marble sculptures is exemplified in works like *Fountain of the Four Rivers* and *Ecstasy of St. Theresa*.  
ANSWER: Gian Lorenzo **Bernini** [or Giovanni Lorenzo **Bernini**]  
*<Arts Sculpture - Etzkorn>*

12. *Two answers required*. One navigator who was a citizen of one of these cities was dispatched to North America to make London “a greater depot for spices” than the other of these cities. That man from one of these cities pretended to have visited Mecca after buying a slave in the other of these cities. Techniques for making colored glass that originated in one of these cities were employed by the other of these cities at the workshop of Murano. One relic was hidden in a container of pork to allow merchants from one of these cities to steal it from the other of these cities. St. Mark became the patron saint of one of these cities after his remains were stolen from the other of these cities. The Great Lighthouse of one of these cities is depicted in a mural in the cathedral of the other of these cities, which is located on the Piazza di San Marco. For 10 points, name these two cities, one of which is the largest seaport in Egypt, the other of which was an Italian maritime city-state famed for its canals.  
ANSWER: **Venice** and **Alexandria** [accept **Venezia** for Venice and Al-**Iskandariyya** for Alexandria]  
*<History European 1400-1914 - Myers>*

13. A physicist with this surname names the problem where the total potential energy of N electrons on the surface of a sphere is minimized. Inspired by Helmholtz's study of knotted filaments which form inside vortices, a physicist with this surname proposed the vortex theory of atoms. Electromagnetic radiation scatters off of charged particles in a wavelength-independent manner in a scattering named for this surname, the low energy limit of Compton scattering. This is the alphabetically second surname which co-names the effect where real gases cool as they are throttled. It's not Germer, but a physicist with this surname shared the Nobel Prize with Davisson for demonstrating the wave nature of particles, contra his father's discovery of “corpuscles.” His father with this surname proposed the plum-pudding model. For 10 points, name this surname of the discoverer of the electron, J. J..  
ANSWER: (J.J. or George or William) **Thomson** [accept **Kelvin** since we're nice]  
*<Science Physics - Krol>*

14. A character in this play repeats the line “Because I believe that the world…” three times in a “vacant,” “desperate,” and then “lost” manner. The questions “why did you kill your wife?” and “why did you betray the organization?” are asked during an interrogation in this play, during which the number 846 is described as “necessarily possible.” A man who repeatedly compliments a bowl of cornflakes skips this play's title event for his “chess night,” and later advises the protagonist to “Don't let them tell you what to do!” During a blackout in this play, Lulu is nearly raped by a giggling man who breaks a toy drum with his foot during a game of blind man's bluff. That protagonist of this play stays at a boarding house run by Tom and Meg before being taken away by McCann and Goldberg. For 10 points, name this Harold Pinter play in which the title event is planned for Stanley Webber.  
ANSWER: *The* ***Birthday Party***  
*<Literature British Non-Shakespeare - Tong>*

15. An artist from this country depicted her gardener's daughter, Ida, in works such as *The Gatherer*. That artist from this country purchased what was thought to be the only painting Vincent Van Gogh sold in his lifetime, *The Red Vineyard*. Anna Boch was part of an artistic group from this country that Octave Maus founded after *The Oyster Eater* was rejected from a salon. A motif in which members of upper-class society wear beaked, clown-like masks appears in paintings by an artist from this country such as *Skeletons Fighting over a Hanged Man* and *Self-Portrait with Masks*. That artist also painted a banner reading “Vive la Sociale!” in a work depicting Christ entering this country's capital. A surrealist from this country depicted cloudy, blue skies in paintings such as *The Empire of Light*. For 10 points, name this home country of James Ensor and René Magritte.  
ANSWER: **Belgium**  
*<Arts Painting - Husar>*

16. Harold Roth controversially argued that this religion's first scripture emerged from the same hypothetical meditative community that produced the *Nei-yeh*. Courtly spiritualist Wei Huacun **(Hwah-TSUN)** founded a school of this religion whose scriptures were revealed to the scholar Yang Xi under the influence of cannabis; that school, focused on complex visualization techniques, is the Shangqing **(Shawng-TCHING)** sect. Although this religion's Lingbao school introduced reincarnation to its cosmology, it preserved this religion's classical emphasis on achieving immortality. A text from this religion uses the example of Cook Ding skillfully butchering an ox to explain the principle of “intention-less action” or *wuwei*. For 10 points, name this Chinese religion founded by Laozi **(LAOW-tsuh)** whose central concept may be translated “the way.”  
ANSWER: **Daoism** [or **Taoism**; or **Dàojiào**; accept Shangqing **D/Taoism** or Lingbao **D/Taoism**]  
*<RMP Non-Christian/Bible Religion - Marvin>*

17. In one article, this man argued that physical afflictions can reflect someone's attitudes and opinions, a concept that he termed “organ jargon.” In another book, this thinker discussed how social inequality leads both boys and girls to express exaggerated masculine behavior and claimed that children spend their first 4 to 5 years developing their “style of life.” The fictionalism of Hans Vaihinger was a major influence upon the teleology of this psychologist. In *Understanding Human Nature*, he proposed that middle children usually have the most rebellious personalities. After splitting with Freud, this man founded the school of individual psychology and wrote *The Neurotic Character.* For ten points, name this Austrian psychologist and formulator of the “inferiority complex.”  
ANSWER: Alfred **Adler**  
*<Social Science Psychology - Lucas>*

18. The narrator of this story asks the reader to “Forget the hashed metaphor” after saying “Oh, and the next two hours tripped by on rosy wings.” In this story, a character's howling “instigates the moral reflection that life is made up of sobs, sniffles, and smiles, with sniffles predominating.” This story states that one may view a “rapid sequence of longitudinal strips” to describe how a slender person can use the type of pier-glass found in an “$8 flat.” Its last paragraph says that the “uneventful chronicle of two unwise children” actually contains the tale of “two [who] were the wisest.” The depreciation of the jewels of the Queen of Sheba and the envy of King Solomon are invoked to establish the value of two items in this story. A man and wife purchase items to complement the other's prized possession after selling their own in--for 10 points--what story by O. Henry?  
ANSWER: “The **Gift Of The Magi**” [or “**Gifts of the Magi**”]  
*<Literature American - Smith>*

19. Two of four empirically derived rules of this material state that oxygen atoms can't be linked by two cations and the cation coordination number must be small in order for this material to form. The cavity method was developed in part by Giorgio Peresi after finding an exact solution to the Sherrington-Kirkpatrick model, which describes the spins of particles in a state analogous to this material. W.H. Zachariasen used random network theory to develop the aforementioned rules for this material's formation. Long-range segmental motion stops for polymers below a transition temperature named for this material. This material is made from rapid melt quenching. Natural varieties include tektite, made from lightning, and obsidian, made from lava. In the lab, it is commonly cleaned with acetone. For 10 points, name this brittle, amorphous material, usually made from silicates.  
ANSWER: **glass** [accept (spin) **glass**]  
*<Science Chemistry - Etzkorn>*

20. One mystic from this country assigned various virtues to different letters of the alphabet and used complex circle and triangle-based diagrams to demonstrate connections between them in a treatise with sections like “The Tree of Science”. One monarch from this modern country composed a law treatise called the *Seven Divisions* and granted privileges to his country's shepherd's guild, the *mesta*. One author from this country compiled his writings in the *Ars Magna*. A monarch from this modern compiled an astronomical table based on Arabic sources, for which he was nicknamed “the wise.” Another author from this country wrote the *Etymologies*, an early encyclopedia. This modern country was also home to a court that hosted the philosopher Ibn Rushd in its city of Cordoba. For 10 points, name this modern country home to Isidore of Seville and Alfonso X of Castile.  
ANSWER: Kingdom of **Spain** [accept Reino de **España**, Kingdom of **Majorca**, Kingdom of **Castile**, Kingdom of **Leon**, or Caliphate of **Cordoba**]  
*<History European to 1400 - Myers>*

21. This group's exploits are described in an anonymous rhyming chronicle meant to be read at their mealtimes. The biggest uprising against this group's rule, in which rebels adopted their use of crossbows and siege engines, took place in 1260 and was led by Swantopelk. The Yatwingians were the last tribe conquered by this group in a war authorized by the bull *Non parum animus noster*. This group was invited to settle in the lands of Duke Conrad of Mazovia in exchange for their vassalage to him. This group sold land to one of its neighbors in the Treaty of Cölln. This group lost the Battle of Grunwald, and one leader of this group was defeated at the “Battle on the Ice” by Alexander Nevsky. This group's neighbor, the Electorate of Brandenburg, later conquered most of this group's lands, including its capital at Konigsberg. For 10 points, name this group that fought the Baltic Crusades, an “order” of knights named for their German origin.  
ANSWER: **Teutonic Knights** [accept **Teutonic Order**, **House of the Hospitalers of Saint Mary of the Teutons**, **Livonian Order**, **Deutsche Orden**, **Ordensstaat**, prompt on knights, crusaders, sword brothers, or Knights Hospitallers]  
*<History European to 1400 - Myers>*

**2019 National All-Star Academic Tournament**

**Round 2 – Bonuses**

1. Many Renaissance paintings employ the Droste effect, meaning that they contain smaller images of themselves. For 10 points each:  
[10] In a namesake triptych by Giotto, this cardinal presents Saint Peter with a smaller version of the triptych itself. That triptych named for this cardinal was originally used as an altarpiece for the old Saint Peter's Basilica.  
ANSWER: Cardinal Giacomo Gaetani **Stefaneschi**  
[10] In a Carlo Crivelli painting that sets this scene in the town of Ascoli Piceno, Saint Emidius kneels to pass a small model of the town to the Virgin Mary. Fra Angelico painted several famous versions of this scene.  
ANSWER: **Annunciation** to the Blessed Virgin Mary  
[10] A reversed image of the portrait's subjects can be seen in the convex mirror at the rear of this artist's *Arnolfini Marriage*.  
ANSWER: Jan **van Eyck**  
*<Arts Painting - Krol>*

2. Graham Spanier developed a Dyadic Adjustment Scale to assess the quality of this kind of social relation. For 10 points each:  
[10] Name this institution, which Jessie Bernard claimed benefits men more than women in a book about its future. In many cultures, paying a dowry is required to establish this kind of relation.  
ANSWER: **marriage**  
[10] This anthropologist explained norms promoting exogamy, or marriage outside one's social group, as part of the alliance theory that he described in his book *The Elementary Structures of Kinship*.  
ANSWER: Claude **Lévi-Strauss**  
[10] In kinship terminology from anthropology, familial relationships established through marriage are often described using this term, which is contrasted with “consanguineal.”  
ANSWER: **affinal** [or **affine**]  
*<Social Science Anthropology - Kothari>*

3. For a functional *L* of *x*, *y*, and *y* prime, this equation states that the *y* derivative of *L* is equal to the *x* derivative of the *y* prime derivative of *L*. For 10 points each:  
[10] Name this second order partial differential equation central to the calculus of variations. It gives the stationary functions of a functional.  
ANSWER: **Euler-Lagrange** equation [prompt on Euler's equation or Lagrange's equation]  
[10] Let *L* be the square root of **(read slowly)** quantity one plus *y* prime squared. If *y* minimizes the functional given by integrating *L* over some *x* interval, what shape does *y* parameterize?  
ANSWER: **line**  
[10] A line minimizes that functional because that functional calculates this quantity between two points. The absolute value of a number measures this quantity between that number and zero.  
ANSWER: Euclidean **distance** [or Euclidean **length**]  
*<Science Math - French>*

4. During the National Boycott of California Table Grapes, this woman met with Gloria Steinem to convince her to help get women to support the farmworkers. For 10 points each:  
[10] Name this activist. Alongside Cesar Chavez, she founded the National Farmworkers Association, which became the United Farm Workers.  
ANSWER: Dolores **Huerta**  
[10] The National Boycott was part of the Delano grape strike, which also saw Chavez and Huerta lead a march from Delano to this capital of California.  
ANSWER: **Sacramento**  
[10] Also during the grape strike, Chavez supported the foundation of this theater troupe, originally led by Luis Valdez. This company has put on plays such as “Zoot Suit.”  
ANSWER: El **Teatro Campesino** [prompt on Peasants' Theater or Farmworkers' Theater]  
*<History American (1945-present) - French>*

5. A characteristic example of these statements advises to “Sooner murder an infant in its cradle than nurse unacted desires.” For 10 points each:  
[10] Name these seventy statements, found between two “Memorable Fancies.” Another of them says that “The tygers of wrath are wiser than the horses of instruction.”  
ANSWER: **Proverbs** of **Hell** [prompt on proverbs]  
[10] “Rintrah roars” in “The Argument” that opens this prose work, which is titled after the magnum opus of Emmanuel Swedenborg. The Proverbs of Hell are found in this prose work by William Blake.  
ANSWER: *The* ***Marriage of Heaven and Hell***  
[10] *The Marriage of Heaven and Hell* claims that this poet was “in fetters when he wrote of Angels and God” because he was “of the Devil's party without knowing it.” In a Blakean epic named for him, this poet of *Paradise Lost* has a feminine “contrary” named Ololon.  
ANSWER: John **Milton**  
*<Literature British Non-Shakespeare - Smith>*

6. The last of Vivaldi's opus 1 trio sonatas is a set of variations on this theme. For 10 points each:  
[10] Name this theme whose “late” version was likely developed by Jean-Baptiste Lully. Handel's sarabande is based on this theme.  
ANSWER: La **Folia** [or **folies** d'Espagne; or **Follies** of Spain; or Spanish **Follies**]  
[10] In its simplest form, the sarabande gives this many beats to a bar. Other dances with this many beats per measure include the mazurka and minuet.  
ANSWER: **three** [accept **triple** meter]  
[10] At the close of the Baroque era of music in Spain, Madrid's court imported Domenico Scarlatti and this Italian composer of several guitar quintets. This composer, nicknamed “Haydn's wife,” also wrote *Night Music of the Streets of Madrid* and a “Celebrated Minuet.”  
ANSWER: Luigi **Boccherini**  
*<Arts Music - Smith>*

7. In 2018, a group at MIT found unconventional superconductivity in a twisted bilayer form of this material. For 10 points each:  
[10] Identify this allotrope of carbon which exists in single-atom-thick sheets.  
ANSWER: **graphene**  
[10] Twisted bilayer graphene acts as a superconductor when one of the sheets is rotated at this type of angle, forming a Moiré pattern. This angle is approximately 1.1 degrees, and it might be more famous for use in another science field.  
ANSWER: **magic** angle  
[10] Twisted bilayer graphene exhibits superconductivity when these things flatten out. They represent the energies that electrons are allowed to have, and insulators have a large gap between them.  
ANSWER: **band**s  
*<Science Physics - Mitchell>*

8. In one poster, this figure says “Good material waste in scrap help to saving face for Jap.” For 10 points each:  
[10] Name this racist caricature with round glasses and pointed teeth. He was used to represent Japan in many American propaganda posters during World War II.  
ANSWER: **Tokio Kid**  
[10] In another poster, this general of the Imperial Japanese Army is “velly happy” that you missed work last week. This Prime Minister of Japan ordered the attack on Pearl Harbor.  
ANSWER: Hideki **Tojo** or **Tojo** Hideki  
[10] This illustrator represented Tojo as an ugly woman married to Hitler in one of his many propaganda posters, although he is better known for writing children's books like *The Cat in the Hat*.  
ANSWER: Doctor **Seuss** [or Theodor Seuss **Geisel**]  
*<History American (1865-1945) - French>*

9. In this story, the title character has a heart attack in his hotel room in Capri at the end of a world tour with his family. For 10 points each:  
[10] Name this story by Ivan Bunin in which the title character is “liberal with his money” while abroad but shockingly indifferent to the poverty around him.  
ANSWER: “The **Gentleman from San Francisco**”  
[10] “The Gentleman from San Francisco” contains an epigraph about this city. In *The Iceman Cometh*, Hugo periodically shouts “the days grow hot, O [this city], while an F. Scott Fitzgerald story is titled for this city “Revisited.”  
ANSWER: **Babylon**  
[10] This author depicted a post-apocalyptic America where “The Great Burning” left old houses as “dead places” in his story “By the Waters of Babylon”. This author also wrote the epic *John Brown's Body*.  
ANSWER: Stephen Vincent **Benet**  
*<Literature American - Santanam>*

10. Stephen Toulmin and Allan Janik argued that this philosopher was influenced not just by logicians like Gottlob Frege and Bertrand Russell, but also by the cultural climate of his native Vienna. For 10 points each:  
[10] Name this philosopher, who set forth such gnomic propositions as “Ethics is transcendental” and “The world is all that is the case” in his *Tractatus Logico-Philosophicus*.  
ANSWER: Ludwig **Wittgenstein** [or Ludwig Josef Johann **Wittgenstein**]  
[10] Wittgenstein was an occasional visitor to the Vienna Circle, whose members largely adhered to this philosophical position, according to which only empirically verifiable statements are meaningful.  
ANSWER: **logical positivism** [or **logical empiricism**; prompt on partial answer]  
[10] This philosopher's book *Killing Time* recounts the time Wittgenstein showed up more than an hour late to speak before the Kraft Circle, a successor to the Vienna Circle. This man's discussions with Imre Lakatos laid the groundwork for the book, *Against Method*, which espoused this man's “epistemological anarchism.”  
ANSWER: Paul Karl **Feyerabend**  
*<RMP Philosophy/Thought - Kothari>*

11. This country's namesake “Small Tool Tradition” refers to the prehistoric finely finished flake tools discovered throughout it. For 10 points each:  
[10] Name this country where “fire-stick farming” was practiced as part of a strategy that used controlled burns to attract game. Five thousand year old rock art depicting ancestral spirits known as the “Lightning Brothers” has been discovered in this country, which is home to the Wardaman people.  
ANSWER: **Australia**  
[10] Those tools and rock art date from around the same time that archaeologists estimate this animal arrived in Australia. These wild dogs may have been introduced by sea-farers from Sulawesi.  
ANSWER: **dingo**  
[10] Another being depicted in early Australian rock art is this deity, which first appeared in rock art from Arnhem Land. This deity, whose name was coined by Alfred Radcliffe-Brown, is said to have created the world during the Dreamtime by following paths called Songlines.  
ANSWER: **Rainbow Serpent** [or **Rainbow Snake**, accept **Wagyl**]  
*<History World - French>*

12. Answer the following about the origin of place names in Greek myth. For 10 points each:  
[10] This place in the Greek pantheon houses the “omphalos”, or the naval of Gaia, and this place gained its name after Apollo carried Cretan priests on his back to this place while in the form of a dolphin. This place was often visited so that people could consult its oracle.  
ANSWER: **Delphi**  
[10] After being sent by his father Agenor, one prince attempted to find his sister, a Phoenician princess Europa. He failed and instead went on to found the a namesake citadel, which later became the center of this city. This city's nobility were said to have descended from the skeleton men that were born from dragon's teeth being sown by this city's founder.  
ANSWER: **Thebes**  
[10] This man's son Ganymede is abducted by Zeus, but as compensation Zeus sends him two horses that can run on water. This man's son wins a wrestling match which leads to his foundation of a city.  
ANSWER: **Tros**  
*<RMP Greek/Roman Myth - Jankov>*

13. This quantity is related to the radius of a particle via the Stokes-Einstein relation. For 10 points each:  
[10] Name this coefficient that multiples the gradient of concentration on the right-hand-side of Fick's first law.  
ANSWER: **diffusion coefficient** [or mass **diffusivity**; prompt on partial answer]  
[10] Einstein derived his namesake relation for the diffusion coefficient in his paper on this phenomenon, the random motion of particles suspended in a fluid.  
ANSWER: **Brownian** motion  
[10] The Stokes-Einstein relation is used in to calculate particle radius in this technique, in which the diffusion coefficient is calculated from an intensity correlation function. This technique measures the size-distribution of suspended or dissolved particles by calculating the intensity fluctuation of scattered light.  
ANSWER: **dynamic light scattering** [accept **DLS**]  
*<Science Chemistry - French>*

14. Even Maoism can invoke nostalgia. Identify the following about this trend, for 10 points each:  
[10] Chinese officials have sought to obtain UNESCO World Heritage status for a massive, hand-dug one of these projects started during the Great Leap Forward. A “grand” one of these that connects Beijing and Hangzhou is the oldest such structure in the world.  
ANSWER: **canal** [or **artificial waterway**]  
[10] So-called Red Tourists might wear one of these things for nostalgia's sake. Almost everyone attending the 9th National Congress of the Communist Party in China in 1969 wore one of these things, causing an aluminum shortage.  
ANSWER: Chairman Mao **pin** [or Chairman Mao **badge**]  
[10] High-speed rail has made it a cinch to visit this home province of Chairman Mao for an annual Red Tourism festival. Its capital is Changsha.  
ANSWER: **Hunan**  
*<Geography World - Bentley>*

15. This collection opens with a poem whose speaker fails to find the right words for a poem to tell a woman he loves her, only to be told by his Muse, “Fool, look in thy heart, and write.” For 10 points each:  
[10] Name this collection whose dedicatee is believed to be Penelope Devereux. The speaker of another poem in this collection notes “With how sad steps, O Moon, thou climb'st the skies!”  
ANSWER: ***Astrophil and Stella*** [or ***Astrophel and Stella***]  
[10] *Astrophil and Stella* was written by this Elizabethan poet of “The Defense of Poesy.” This man detailed the brief turmoil of Basilius' kingdom in *The Countess of Pembroke's Arcadia*.  
ANSWER: Sir Philip **Sidney**  
[10] Sidney's “The Defense of Poesy” is not to be confused with this much later poet's essay “The Defense of Poetry.” Poems by this man include “Adonais” and “Ozymandias.”  
ANSWER: Percy Bysshe **Shelley**  
*<Literature British Non-Shakespeare - McCullar>*

16. This event was partially stocked by the environmental concerns of mining as part of the Phosphorite War. For 10 points each:  
[10] Name this event whose name was coined by Heinz Valk, that caused the Soviet Union to lose control of three Baltic nations.  
ANSWER: the **Singing Revolution**  
[10] The Singing Revolution resulted in the independence of Latvia, Lithuania, and this nation, whose Tallinn Song Festival Grounds was a major meeting place for demonstrators.  
ANSWER: **Estonia**  
[10] On the fiftieth anniversary of the Molotov-Ribbentrop Pact, two million people across the the three countries performed this specific action over the length of their border with Russia to demonstrate unity.  
ANSWER: form a **human chain** [accept equivalents, descriptive answers]  
*<History European 1914-present - Hawkins>*

17. In this play, Hansy Rilow **(Ree-lov)** compares himself to Othello and Bluebeard upon burning a pornographic book. For 10 points each:  
[10] Name this play by Frank Wedekind, subtitled “a children's tragedy,” in which Moritz commits suicide after getting bad grades and the atheist Melchior Gabor assaults the masochistic Wendla.  
ANSWER: ***Spring Awakening*** [accept ***Fruhlings Erwachen*** or ***Spring's Awakening***]  
[10] Wedekind's play was translated from the German in the 1970s by this British poet laureate, whose collection *Birthday Letters* contains several poems addressed to his deceased wife, Sylvia Plath.  
ANSWER: Ted **Hughes**  
[10] *Spring Awakening* was also translated and modernized by this contemporary American novelist author of *Purity* and *Freedom*. This novelist attacked the experimental fiction of William Gaddis in his essay *Mr. Difficult*.  
ANSWER: Jonathan **Franzen**  
*<Literature European - Myers>*

18. The *thermocellum* species in this genus is currently being investigated for its ability to metabolize cellulose into ethanol. For 10 points each:  
[10] Name this genus of Gram-positive bacteria, one of which causes botulism.  
ANSWER: ***Clostridium***  
[10] *C. botulinum* inhibits the release of acetylcholine by cleaving the SNARE proteins on these structures. They are released by voltage-gated calcium channels and contain a 10:1 ratio of acetylcholine and ATP.  
ANSWER: synaptic **vesicles**  
[10] Botulinum toxin is frequently called the most potent toxin because it has the lowest known value for this measure of lethality, defined as the dose required to kill half the members of a population.  
ANSWER: **LD 50** [prompt on median lethal dose]  
*<Science Biology - Mitchell>*

19. This opera popularized the use of the whole-tone scale to represent evil in its home country; the scale has since been called “Chernomor's Scale.” For 10 points each:  
[10] Name this nationalistic 1842 opera based on a Pushkin poem.  
ANSWER: ***Ruslan and Lyudmila***  
[10] Mikhail Glinka's music, particularly his operas, was an important precursor to this composer, whose Pushkin-based *The Tale of Tsar Saltan* contains an interlude titled “The Flight of the Bumblebee.”  
ANSWER: Nikolai Andreyevich **Rimsky-Korsakov**  
[10] This Rimsky-Korsakov opera was based on his earlier “musical tableau” itself based on a *bylina*. It contains arias named for Varangian, Indian, and Venetian Guest and depicts a *gusli*-playing hero.  
ANSWER: ***Sadko***  
*<Arts Opera - Smith>*

20. Genesis 11:7, which is a part of the narrative of the construction of this structure, is sometimes given as scriptural support for the Trinity. For 10 points each:  
[10] Name this structure that mankind builds with the goal of reaching the heavens. God stops its construction by confounding the speech of the builders and scattering them across the world.  
ANSWER: Tower of **Babel** [or *Migdal* ***Bavel***]  
[10] In Luke 13, while teaching about repentance, Jesus mentions the 18 victims of the collapse of a tower with this name. Jesus also restored a man's eyesight by spitting into the ground to make mud, rubbing it onto the man's eyes, and then telling him to wash himself in a pool of this name.  
ANSWER: **Siloam** [accept Pool of **Siloam**]  
[10] While besieging Thebez, Abimelech suffered a mortal injury when his head was struck with a mill-stone that a woman threw from a fortified tower. That episode appears in this Old Testament text that repeats the phrase “every man did that which was right in his own eyes.”  
ANSWER: Book of **Judges** [or *Sefer* ***Shoftim***]  
*<RMP Christian/Bible Religion - Suh>*

21. The author described this set of poems as “the thin gleanings of a long weary while” to Robert Bridges. For 10 points each:  
[10] Name this set of poems which includes “No Worst, There is None,” “Thou art indeed just, Lord” and “Carrion Comfort.” These six poems express the religious doubts of the poet.  
ANSWER: **terrible sonnet**s [or the **sonnets of desolation**]  
[10] This author's last words were “I am so happy, I am so happy. I loved my life” despite the late-life depression that inspired his “terrible sonnets.” This possibly homosexual Jesuit wrote “Pied Beauty” in his trademark sprung rhythm.  
ANSWER: Gerard Manley **Hopkins**  
[10] This ode by Hopkins opens with an invocation to “Thou mastering me / God!” It is dedicated to five Franciscan nuns who drowned during the title event.  
ANSWER: “The **Wreck of the Deutschland**”  
*<Literature British Non-Shakespeare - Smith>*