

## **(This) Tournament is a Crime**

Edited by Aauroni Gupta, Ike Jose, Eddie Kim, Bruce Lou, and Andrew Wang

Finals 1

Tossups

1. **Joseph Vaccaro earned the nickname "the ice king" when he made his fortune with this product. A scandal involving this product was unearthed after the Securities and Exchange Commission investigated the suicide of Eli Black. This product was moved throughout the world with the *Admiral Dewey* and *USS Tivivies*, two ships of a "Great White Fleet." This product's namesake "-gate" was a scandal in which President Oswaldo (\*) Arellano was given over a million dollars to reduce export taxes on it. An organization that made money from this good was derisively referred called *el pulpo*, or the octopus. The CIA ran Operation PBSUCCESS to overthrow Jacobo Arbenz and benefit a company that exported it. For 10 points, name this food that the United Fruit Company exported from Honduras.**

ANSWER: **bananas** [prompt on food or crops or fruit]

<IJ, World History>

2. **Wolfgang Schöniger's oxygen flask method and Lassaigue's sodium fusion test are older forms of methods with this goal. The Pregl-Dumas method is typically used in automated systems for performing this task. Graphite furnaces are used to atomize samples for methods of performing this task. EDX and PIXE are techniques that achieve this goal, while owners of high flux neutron sources can perform a nondestructive method of this sort through neutron activation analysis. Inductively coupled plasma produces superior (\*) emission spectra than flames for the purpose of this task. The most common method of this task involves burning a sample in an excess of oxygen and measuring how much carbon dioxide, water, and nitric oxide is produced and is known as CHN analysis. For 10 points, name this class of methods which attempt to determine the composition and percent masses in a molecule.**

ANSWER: **elemental analysis** [accept **CHNX** analysis or **CHNS** analysis before the mention of "CHN"; prompt on EA; prompt on combustion analysis; prompt on atomic emission spectroscopy or atomic absorption spectroscopy; accept any answer that suggests you are detecting the presence of some sort of **element** as well]

<AW, Chemistry>

3. **A poem set in the last year of this decade invites the reader to "come let us mock at" the great, wise, and good, and "mock mockers after that" for choosing not to help them instead. Another poem set in this decade observes that "little time had they to pray / For whom the hangman's rope was spun." A third poem set in this decade discusses a woman who spent her days in "ignorant good-will," and "her nights in argument / Until her voice grew shrill." The lines "Romantic (\*) Ireland's dead and gone, / It's with O'Leary in the grave," end most stanzas of a poem set in "September" of a year in this decade. The line "I met them at close of day" opens a poem set in this decade, whose speaker exchanges "polite meaningless words" with his countrymen, before a historical event leaves them "all changed, changed utterly," prompting him to declare that "a terrible beauty is born." For 10 points, name this decade during which Yeats's poems about the Irish War of Independence and the Easter Rising are set.**

ANSWER: **1910s** [the poems are "Nineteen Hundred and Nineteen," "September 1913," and "Easter, 1916"]

<AG, Poetry>

4. **A Haydn symphony in this key ends with a 2/4 time sonata-rondo in the style of a perpetual motion piece, with a canon in the middle section between the violins, and the low strings and bassoons. A Mozart violin concerto in this key quotes a folk tune from Strassbourg in its third movement. It is not B minor, but if a Classical sonata is in this key, it will usually present the second theme in D major. This is the key of Haydn's Symphony No. 88 and Mozart's Violin Concerto No. 3. Haydn used this key to write his Symphony No. (\*)**

100, whose Allegretto second movement calls for triangle, cymbals, and bass drum to imitate a Turkish Janissary band. This is the key of the *Military* Symphony, Mozart's Serenade No. 13, and yet another Haydn symphony whose quiet second movement is interrupted by a sudden LOUD chord. For 10 points, name this key used to write the *Surprise* Symphony as well as *Eine kleine Nachtmusik*.

ANSWER: G major [do not accept "G minor"]

<EK, Music>

5. In mice, a population of self-renewing, anti-tumor cells mediating this phenomenon can be generated by Wnt3A ["wint 3 A"] activation and GSK3-beta inhibition. In non-human primates, the panel for this phenotype consists of the markers CD95, CD28, IFN-gamma, CD8, and CD4. Differential expression of markers such as CCR7 and L-selectin, also known as CD62L, allows cells mediating this property to be subclassified into (\*) "stem," "central," and "effector" populations. This phenomenon is mediated by the longer-lived cells formed during germinal center differentiation. Preferential reliance on this phenomenon can lead to "original antigenic sin." Naive cells can become either plasma or this type of cell upon exposure to an antigen. For 10 points, name this phenomenon, the hallmark of adaptive immunity, in which namesake T and B cells are primed to deal with pathogens the body has encountered before.

ANSWER: immunological memory [prompt on adaptive immunity before mentioned]

<AG, Biology>

6. A group of 52 essays by this man comprise *DEAD: A Celebration of Mortality*, a book whose marble cover makes it resemble a tombstone. The 2004 warehouse fire in Momart destroyed a collection named for this native of Baghdad, including a hut titled *The Last Thing I Said is Don't Leave Me Here*. This man and his brother Maurice founded a namesake company that produced Margaret Thatcher's catchy slogan "Labour isn't working." Billy Childish and Charles Thomson once reported this one-time husband of Nigella Lawson to the Office of Fair Trading for supposedly having a monopoly over art. This enemy of the (\*) Stuckists started a gallery whose works include a vitrine called *The Physical Impossibility of Death in the Mind of Someone Living*. For 10 points, name this advertising executive and one of the richest men in the U.K., who patronizes the Young British Artists.

ANSWER: Charles Saatchi

<IJ, Painting/Sculpture>

7. This event is discussed in the first chapter of a book by Mike Davis about a weapon Davis calls "the poor man's airforce." The investigation into this event has never been officially closed, and was led by William Flynn, who found fliers reading "free the political prisoners or it will surely be the death of you" nearby where it occurred. The alleged perpetrator of this event had four years earlier framed the labor leaders Thomas Mooney and Warren K. Billings in a terrorist attack that took place on (\*) Preparedness Day in San Francisco. This event was thought to have been perpetrated by Mario Buda, an editor for the *Cronaca Sovversiva*, who championed the "propaganda of the deed" ideas of Luigi Galleani. For 10 points, name this event in which a wagon bomb destroyed a portion of the Financial District of New York City.

ANSWER: Wall Street bombing

<IJ, American History>

8. Fred Pierce posits a form of apartheid based on the availability of this thing according to a book which argues that this thing is "The Defining Crisis of the Twenty-First Century." A 2001 book by Tony Allan discusses a "virtual" form of this thing, which a country exports or imports to develop its underlying infrastructure. The politics of this thing in "the developing world" was highlighted in a book by Arun Elhance, who argued that conflicts over this thing is rapidly becoming a "core national security concern." The (\*) "power projection" of states is limited by the presence of large amounts of this thing according to the book *The Tragedy of Great Power Politics*, which discusses the "stopping power" of it. William Mulholland diverted this resource from the Owens Valley to Los Angeles in a set of California wars named for it in the early 20th century. For 10 points, name this resource, the subject of hydropolitics.

ANSWER: water

<IJ, Social Science>

9. In a novel by this author, a scientist names the ears, nose, and fingers of his rival's wife, and lists the chemical components of her urine, making those parts behave autonomously. The protagonist of a novel by this author is trapped in a dark basement where would-be escapees are thwarted by the spurs attached to everyone's shoes, and is named as second in a duel by the filthy rich homosexual Gonzalo. The untranslated word *pupa* is used in place of "buttocks" throughout a novel by this author, which features a "duel of grimaces" between the idealistic Siphon and his rival (\*) Kneadus. The protagonist of that novel by him chafes under the proper Youngblood family while living with them as a boarder. This author, who fictionalized his flight to Argentina at the outset of World War II in his novel *Trans-Atlantyk*, is best known for a novel in which Professor Pimko imposes childishness on his students, such as the author Johnny Kowalski. For 10 points, name this proto-Absurdist Polish author of *Ferdysdurke*.

ANSWER: Witold Gombrowicz [or Witold Marian Gombrowicz]

<AG, Long Fiction>

10. These objects are imbued with significance in a ritual known as the *prana pratishtha*. The *Arya Samaj* denomination consciously rejects the ritual usage of these objects. The *raudra* or *ugra* examples of these objects are meant to inspire terror, in contrast to the more serene *shanta* or *saumya* types. Craftsmen known as *shilpin* make these objects mostly out of black granite in Southern India, and white marble in Northern India. Gigantic examples of these objects are hauled on (\*) carts during the *Ratha Yatra*, a predominantly South Indian festival dedicated to Jagganath. The *panchamrita*, a mixture of five foodstuffs including milk, yogurt, and ghee, is poured on these objects during the *abhisheka*. Cloistered spaces within Hindu temples house these objects, which are known as *murti*. For 10 points, name these representations of Lakshmi, Ganesh, and other Hindu gods.

ANSWER: Hindu idols [or statues; or images of gods before the very end of the question; accept murtis before mentioned]

<AG, Religion>

11. This woman is reluctantly photographed as Phyllis, riding her friends like Aristotle, in a 2016 biopic titled *In Love With her*. Her best known idea was her notion of narcissism as a positive, creative force. Ernst Pfeiffer compiled this woman's autobiography *Looking Back*, after the Gestapo raided her home in Gottingen upon her nemesis Elisabeth Förster's slanderous suggestion that she was Jewish. This woman planned to live in a sexless arrangement with Paul Rée and a more prominent male friend who incorporated one of her poems into his *Hymn to (\*) Life*, but nixed it after they both fell in love with her. In her memoir *You Alone Are Real To Me*, this woman recounted suggesting that Rilke change his first name from "Rene" to "Rainer" to project more masculinity, early during their affair. For 10 points, name this first major female psychoanalyst, a collaborator with Freud who wrote a firsthand account of Nietzsche's life and work, and fit into a predominantly male intellectual scene by calling herself "Lou."

ANSWER: Lou Andreas-Salome

<AG, Geography/Current Events/Other>

12. In its introduction, the author of this play traced its genesis to his first conscious memory, when he was on a knoll watching a new house be built. A character in this play receives a bracelet from her husband when it slides off his flaccid penis. In this play's longest speech, a character recounts literally rolling in the hay with a stable groom to get revenge on her husband, whom she derisively nicknames "the penguin." This play ends with one of its title characters taking the hands of the others, and declaring the (\*) happiest moment to be "When it's all done. When we stop. When we can stop." A character in this play reappears in Act II wearing a breathing mask after suffering a stroke at the end of Act I. This play includes a non-speaking character called The Boy, the estranged gay son of the title characters, who are different incarnations of the same person at ages twenty-six, fifty-two, and ninety. For 10 points, name this Pulitzer-winning autobiographical Edward Albee play, whose title characters are named A, B, and C.

ANSWER: Three Tall Women

<AG, Drama>

13. This character is wished the well-being that the author herself desires from him in the fourth of the *Heroides*, which is addressed to him. This character attempts to console Egeria when she moves to the forest after the death of her husband Numa Pompilius. According to Ovid, this character meets his doom at the hands of a horned bull riding an enormous wave, but is afterwards transformed into an elderly god named Virbius. In a Euripides play, this character is exiled from (\*) Troezen after he is accused of rape in a suicide note. For resurrecting this character, Asclepius is killed by Zeus's thunderbolt. After he rejects the romantic advances of his stepmother Phaedra, this son of a similarly-named Amazon perishes when Poseidon strikes his horses with terror and causes them to crash his chariot. For 10 points, name this son of Theseus.

ANSWER: Hippolytus [or Virbius before "Virbius" is read; do not accept "Hippolyta"]  
<EK, Legends>

14. A book titled for this concept presents a detailed stylistic analysis of the scene from *To the Lighthouse* in which Mrs. Ramsay measures a stocking against her son's leg. In *Anatomy of Criticism*, Northrop Frye describes "high" and "low" modes of literature named after this concept. In *Deceit, Desire, and the Novel*, Rene Girard first propounded his theory all desire springs out of this concept. The mystery of Abraham's sacrifice of Isaac is contrasted with the clarity of Euryclea's recognition of Odysseus's (\*) scar, in the oft-anthologized first chapter of a collection of essays about this concept. In *The Republic*, Plato contrasts this concept with *diegesis*, meaning narration. In *The Decay of Lying*, Oscar Wilde opposes this idea by declaring that "Life imitates Art far more than Art Imitates Life." For 10 points, name this literary concept investigated by Erich Auerbach, which Aristotle's *Poetics* describes as imitation of the natural world.

ANSWER: mimesis [or word forms, such as mimetic; prompt on imitation or word forms until mentioned]

<AG, Short Fiction/Miscellaneous>

15. The original version of this song ends by twice asking the title character "What was your price?" after describing a young widow who wakes up to find that she has been raped. This song is the penultimate track on the 1960 live album *Ella in Berlin*, in which she sings "Oh, what's the next chorus, to this song, now? This is the one, now I don't know" after forgetting its lyrics mid-performance. In a stanza midway through this song, performers shout out the names of characters such as Louie Miller and (\*) Sukey Tawdry as well as interpreters such as Frank Sinatra and Louis Armstrong. The fourth track on *Saxophone Colossus* is an instrumental cover of this song titled "Moritat." The lyrics to this song were frantically written by Bertolt Brecht just before the premiere of the opera that it headlines, although Bobby Darin's definitive version uses lyrics that begin "Oh, the shark, babe, has such teeth dear, and he shows them pearly white." For 10 points, name this song from *The Threepenny Opera* about a blade-wielding scoundrel.

ANSWER: "Mack the Knife" [or "The Ballad of Mack the Knife"; or "Die Moritat von Mackie Messer"; prompt on "Moritat" before "Moritat" is read]

<EK, Other Art>

16. David Hartley's *Observations on Man* uses the "method of analysis and synthesis" presented in this other book to study humanity. The second edition of this book ends with a section stating that "the most beautiful system of the Sun, planets and comets" sprang from a "powerful and intelligent being," an idea defended by Samuel Clarke, a friend of this work's author. The standard translation of this neo-Latin text into French was published by Voltaire ten years after its translator, Emilie (\*) du Chatelet, died during childbirth. This book, which contains its author's statement "I contrive no hypotheses" in its concluding *General Scholium* uses data from John Flamsteed and Edmund Halley in its third section *On the System of the World*, to posit a theory of universal gravitation. A theory of infinitesimal calculus is presented in, for 10 points, what work first appearing in 1687, the magnum opus of Isaac Newton?

ANSWER: *Philosophiae Naturalis Principia Mathematica*

<IJ, Thought>

17. A 9-level scale for determining the societal impact of these events was put forth in a 1984 "chronology" by D. J. Schove. The date of one of these events was moved from 989 to

995 by the transcriber of the *Anglo-Saxon Chronicle* to coincide with the death of Sigeric the Serious. Paolo Toscanelli blamed one of these events for causing a drought in Constantinople, and described it as appearing like an "ox's eye" with a "peacock." Pierre-Simon Laplace started the likely untrue claim that Callixtus III (\*) issued a bull of excommunication after one of these events. Johannes Hevalius wrote a book describing these events, and the idea that they are terrestrial in origin was challenged by observations given by Tycho Brahe. The 32nd scene of the Bayeux Tapestry shows men observing, for 10 points, what kind of appearances, which involved an object named for Edmund Halley?

ANSWER: comet appearance [accept more specific comets as part of the answers, such as Halley's Comet]

<IJ, European History>

18. Applying this operation to the  $j$ -function led Conway and Norton to realize that certain numbers in the  $j$  function were one bigger than the number of dimensions of non-trivial representations of the group  $M$ ; that realization became known as the monstrous moonshine conjecture. In the context of modular forms, this function uniquely determines the modular form of functions and is sometimes named after the letter  $q$ . The integral of the square of a function  $f$  is equal to the infinite sum of the values generated by applying this function to  $f$  by Parseval's Identity. This operation applied to a function  $f$  will equal the original function if the function is (\*) absolutely-integrable and contains a finite number of discontinuities as part of the Dirichlet conditions. Performing this operation on some functions, such as the square wave, leads to an undesirable "overshooting" known as the Gibbs phenomenon. For 10 points, name this operation that expresses a function as a sum of trigonometric functions.

ANSWER: Fourier decomposition [before the letter "q" accept q-transform; accept answers indicating decomposing a function into its Fourier series; do not accept or prompt on the Fourier Transformation]

<IJ, Math/Other Science>

19. These phenomena occur at a local level when Suydam's criterion is not met. These phenomena occur less when  $q$  is above 1, a value known as the Kruskal-Shafranov limit. A phenomenon of this type that occurs in H-mode plasmas is modelled by a "peeling-ballooning" mechanism. The presence of these phenomena is decreased with higher magnetic shear. The field-reversed configuration is oddly resilient to these phenomena despite (\*) MHD predictions. These phenomena are typically categorized by their  $m$  and  $n$  modes. These phenomena should not occur in theta pinches, but occur in z-pinches, primarily as "sausage" and "kink" varieties. These phenomena are more likely to occur when magnetic field lines curve towards the plasma, and their presence makes it difficult to run a reactor at high beta. The "flute" form of this phenomenon is a pressure-driven analogue of one that occurs when a fluid lies on top of a less dense fluid named for Rayleigh and Taylor. For 10 points, name these phenomena in plasmas in which they are greatly affected by perturbations.

ANSWER: plasma instability [or magnetohydrodynamic instability; prompt on perturbation before mention]

<AW, Physics>

20. After this event, the activist Robert Bernstein founded a non-governmental organization to ensure that one of its parties followed its terms. Before this event, a president outlined "three baskets" of principles to be upheld, which became known as this event's "Blue Book." This event, which was the basis for the 1990 Paris Charter, was not attended by Enver Hoxha, who called it a "cooked-up comedy," in which all but two-parties would "pay the bill." This event took place after an initial meeting in (\*) Espoo, and was the "Final Act" of the Conference of Security and Co-operation in Europe. It produced a "decatalogue" of principles, some of which stressed the "inviolability of frontiers" and "respect for human rights." Gerald Ford and Leonid Brezhnev attended, for 10 points, what 1975 Cold War meeting held in a Nordic country?

ANSWER: Helsinki Conference [or Helsinki Accords or the Helsinki Final Act]

<IJ, European History>

Bonuses

1. Michel de Montaigne witnessed the execution of a man who was charged with impersonating this other man in the town of Artigat. For 10 points each:

[10] Name this man whose identity was impersonated by Arnaud du Tilh. This man himself dramatically showed up at a trial in which that impostor was finally exposed as a conman in front of a judge.

ANSWER: Martin **Guerre**

[10] Martin Guerre, much like Peter Stuyvesant, had one of these artificial body parts. That allowed a soldier to recognize Arnaud du Tilh as an impostor since Guerre had one of these attached to him after losing it in combat.

ANSWER: wooden **legs**

[10] Martin Guerre is the subject of Natalie Davis's *The Return of Martin Guerre*, a work in this paradigm of historical research. "The cosmos of a 16th-century miller" is examined in Carlo Ginzburg's *The Cheese and the Worms*, another work in this paradigm.

ANSWER: **microhistory**

<IJ, Other History>

2. In a novel set during this political situation, an old man and his niece refuse to speak to an officer billeted in their house. For 10 points each:

[10] Name this political situation, during which Vercors's novel *The Silence of the Sea* was distributed in a *samizdat*-like manner. Before being murdered, Irene Nemirovsky completed two novels in a "suite" depicting life during this situation.

ANSWER: German **occupation of France** during World War II [or **Vichy France**; or the **French Resistance**; prompt on World War II-era **France** and other answers that don't mention Vichy or the presence of Germans or Nazis]

[10] In this Albert Camus novel that is often read as an allegory for the occupation, Dr. Bernard Rieux investigates an outbreak in the town of Oran in Algeria.

ANSWER: *The **Plague*** [or *La **peste***]

[10] As uncovered by biographers such as Jean Lacouture and Olivier Todd, this author greatly exaggerated his involvement in the French Resistance. He served as France's first Minister of Culture, and wrote about revolutionaries in Shanghai in his novel *Man's Fate*.

ANSWER: Andre **Malraux**

<AG, Long Fiction>

3. Individually-labeled homozygous cells can be engineered in a heterozygous *Drosophila* in a type of "analysis with a repressible cell marker" exploiting this phenomenon. For 10 points each:

[10] Name this genetic phenomenon in which a mutation, a lag in anaphase, or nondisjunction results in some cells having a different genotype. Unlike chimerism, it can happen in an individual developing from a single zygote.

ANSWER: **mosaicism**

[10] In the most common form of mosaicism, some cells have three copies of a given chromosome, a situation given this name. Down's syndrome happens when it affects chromosome 21.

ANSWER: **trisomy**

[10] Though full trisomy of this chromosome is incompatible with life, mosaic trisomy of it is survivable and is actually a fairly common cause of miscarriage. Impairment in the alpha globin gene cluster expressed on this chromosome leads to alpha thalassemia.

ANSWER: chromosome **16**

<AG, Biology>

4. This man's less reputable work include collaborating with H. Rider Haggard on *The World's Desire*, a fantasy novel, and arguing that "waking dreams" are caused by ghosts in *The Book of Dreams and Ghosts*. For 10 points each:

[10] Name this Scottish folklorist whose books *Myth, Ritual, and Religion* argue that myths represent true history.

ANSWER: Andrew **Lang**

[10] Andrew Lang may be best remembered today for collecting these kinds of tales in various colored books. Many of these were collected by the brothers Grimm.

ANSWER: **fairy** tales [prompt on **fantasy** tales; do not accept or prompt on folk tales]

[10] In a book examining the "secret" of these objects, Lang argues that a belief in their power is linked to the power of names. James Frazer argued that a belief in an "external soul" gives power to these objects in a book that examines their relationship to exogamy.

ANSWER: **totems** [accept **totem** poles or **totemism**]

<IJ, Social Science>

5. William Mitford's *History of Greece* claims that the only region uncorrupted by this event was the pastoral Arcadia. For 10 points each:

[10] Name this event, which would have occurred around 1100 B.C., in which a group of Greek-speaking people from the North of Greece ended the Mycenaean Civilization.

ANSWER: **Dorian invasion** [or **Dorian** migration; prompt on BUT DO NOT REVEAL the return of the Heracleidae]

[10] Many ancient Greek historiographers believed that the Dorian invasion was merely the return of this group of mythological figures.

ANSWER: **Heracleidae** [or the **Children of Heracles**]

[10] The Dorian invasion is likely fictional since archaeological evidence for Dorians cannot be found until the "Early" phase of this period, which lasted from 900 to 850 BC. This period is named for the motifs on Greek vases.

ANSWER: **Geometric** period

<IJ, European History>

6. Answer the following about modern responses to Horace's phrase "dulce et decorum est pro patria mori," meaning "It is sweet and proper to die for one's country," for 10 points each.

[10] This British poet and World War I casualty called the sentiment "the old Lie" told to "children ardent for some desperate glory," at the end of his poem "Dulce et decorum est."

ANSWER: Wilfred **Owen** [or Wilfred Edward Salter **Owen**]

[10] The fourth section of this poem is dedicated to those who died in the war, "pro patria, non dulce non et decor." This long poem is about its author's alter ego, who "bent resolutely on wringing lilies from the acorn" and "strove to resuscitate the dead art / Of poetry."

ANSWER: "**Hugh Selwyn Mauberley**" [by Ezra Pound]

[10] This poet was nearly expelled from school for writing an essay calling the phrase "cheap propaganda." He cautioned future generations to "Remember / When you speak of our failings / The dark time too / Which you have escaped" in his poem "To Those Born Later."

ANSWER: Bertolt **Brecht** [or Eugen Friedrich Bertolt **Brecht**]

<AG, Poetry>

7. To help pass this legislation two leaders created the informal "Nazareno Pact." For 10 points each:

[10] Name this law that if it had passed, would have given extra seats to the political party that won more than 40% of the votes during an election.

ANSWER: **Italicum** [or **Law 6 May 2015**, no 52; prompt on Italian electoral law of 2015]

[10] This leader of the Democratic Party resigned his position as Prime Minister Of Italy after the referendum on Italicum; he was succeeded by Paolo Gentiloni.

ANSWER: Matteo **Renzi**

[10] This former comedian and founder of the populist Five Star Movement opposed Italicum, blasting Berlusconi and Renzi's Nazareno Pact.

ANSWER: Beppe **Grillo**

<IJ, Geography/Current Events/Other>

8. A metal is strengthened by repeatedly undergoing this process when cold working. For 10 points each:

[10] Name this sort of irreversible transformation which occurs past the yield point.

ANSWER: **plastic deformation** [prompt on deformation]

[10] This simplistic criterion for material failure is also known as the maximal shear stress criterion and unsurprisingly says that plastic deformation occurs when maximum shear stress exceeds shear yield stress. The von Mises criterion is effectively the same as this criterion but not discontinuous.

ANSWER: **Tresca** criterion

[10] Tresca's criterion can be applied to solids with this property which can be described as a materials' ability to be stretched into a wire. It is often contrasted with malleability.

ANSWER: **ductility** [or word forms such as **ductile**]  
<AW, Physics>

9. In 2015, Seong-Jin Cho performed this piece to win the seventeenth iteration of a musical competition named after its composer. For 10 points each:

[10] Name this E minor piece whose third movement is based on the rhythm of the *krakowiak* dance. Despite its number, it was written after an F minor piece in the same genre.

ANSWER: **Piano Concerto No. 1** by Frédéric **Chopin** [or **Piano Concerto No. 1** by Frédéric François **Chopin**; or **Piano Concerto No. 1** by Fryderyk Franciszek **Chopin**; prompt on partial answer]

[10] Chopin's piano concertos are one of the earliest examples of the more emotional, freeform style employed in this period of music that spanned much of the 19th century.

ANSWER: **Romantic** period [or **Romanticism**; or word forms]

[10] This early Romantic composer's *Konzertstück* in F minor is styled as a programmatic piano concerto that depicts a soldier's return from the Crusades. He also wrote the operas *Oberon* and *Euryanthe*.

ANSWER: Carl Maria von **Weber** [or Carl Maria Friedrich Ernst von **Weber**]  
<EK, Music/Opera>

Moderator note: *Enkimdu* is written correctly; it is not a misspelling of "Enkidu."

10. In a myth of this culture, personifications of summer and winter argue over whether the gods prefer their agriculture or their animal husbandry. For 10 points each:

[10] Name this civilization. One of their "debate" myths of creation describes the fashioning of humans to utilize the products of sheep and grain, which the immortal gods do not know how to use.

ANSWER: **Sumer** [prompt on **Mesopotamia**; do not accept "Babylon"]

[10] Under the advice of the Sumerian god Utu, Inanna chooses this shepherd god as consort rather than the farmer god **Enkimdu**. This god is later whisked away to the underworld when he refuses to mourn for Inanna.

ANSWER: **Dumuzi** [or **Dumuzid**; or **Tammuz**]

[10] In Abrahamic tradition, these two sons of Adam are a farmer and a shepherd, the former of whom murders the latter when his sacrifice is not accepted by God.

ANSWER: **Cain** and **Abel** [or **Qayin** and **Hebel**; or **Qabil** and **Habil**]

<EK, Legends>

11. A man who hallucinates being followed by these "constant, infallible" objects spreads his delusion to a young woman who goes insane and covers all of these items in her home, in a story from the collection *The Maker*. For 10 points each:

[10] Name these objects, a "shifting" example of which appears in the subtitle of the book being reviewed in the story "The Approach to Al-Mu'tasim." Another story by the same author begins with its narrator crediting a discovery "to the conjunction" of one of these objects "and an encyclopedia."

ANSWER: a **mirror** [or un **espejo**]

[10] The saying "Mirrors and copulation are abominable, for they multiply the number of mankind" propels the plot of this story, in which a secret society is revealed to have fabricated the existence of a planet where people create objects through sheer force of imagination.

ANSWER: "**Tlon, Uqbar, Orbis Tertius**"

[10] Mirrors are a recurring symbol of existential horror in the corpus of this blind Argentine author, who printed the story "Tlon, Uqbar, Orbis Tertius" in his collection *Ficciones*.

ANSWER: Jorge Luis **Borges** [or Jorge Francisco Isidoro Luis **Borges** Acevedo]

<AG, Short Fiction/Miscellaneous>

12. Many of this document's ideas were incorporated from its author's earlier analysis on *The Institutes of Zhou*, and those ideas were implemented by Emperor Shenzong. For 10 points each:

[10] Name this document submitted in AD 1058 to Renzong which suggested that bureaucratic posts should be filled with specialists instead of "men of general learning." It is named for its length.

ANSWER: *The **Ten Thousand Word Memorial***

[10] *The Ten Thousand Word Memorial* was written by this man, who passed the "green-sprouts law" and "balanced-delivery law" reforms. Many of his ideas were opposed by the conservative statesman Sima Guang.

ANSWER: **Wang Anshi** [prompt on **Wang**]



[10] Wang Anshi implemented the New Policies of this Chinese dynasty, which came to power in AD 960.

ANSWER: **Song** Dynasty

<IJ, World History>

13. For 10 points each, answer the following about the "Green World," Northrop Frye's term for the fantastical natural settings in Shakespeare's comedies.

[10] One such setting is this play's Forest of Arden, where Rosalind's father Duke Senior sets up his court-in-exile. A monologue beginning "All the world's a stage" opens this play.

ANSWER: **As You Like It**

[10] This character from a different play delivers a speech lamenting the "contagious fogs," "rheumatic diseases," and "hoary-headed frosts" spoiling the natural beauty of her surroundings. She eventually agrees to allow her husband to make a beautiful Indian prince his knight.

ANSWER: **Titania**

[10] The first example of the "green world" that Frye cites is the forest between Milan and Mantua in *The Two Gentlemen of Verona*, where a group of these people persuades Valentine to become their leader.

ANSWER: **outlaws** [or **brigands**; or **scofflaws**; accept synonyms]

<AG, Drama>

14. In one of these two paintings, the church in the far right background is suggested to be the Church of San Bernardino. For 10 points each:

[10] Name these two depictions of the Virgin Mary, named for the English earl who purchased them. A vivid blue gradient dominates the sky in the "large" one of these.

ANSWER: **Cowper** Madonnas

[10] The Cowper Madonnas were made by this Italian Renaissance artist, whose other depictions of the Virgin Mary include the *Madonna of the Meadow*. He also painted *The School of Athens*.

ANSWER: **Raphael Sanzio** [accept either; accept **Raphael** of Urbino]

[10] Another Madonna by Raphael, which is described by this adjective, depicts Barbara and its namesake saint next to the Virgin Mary; two putti with multi-colored wings appear in its bottom.

ANSWER: **Sistine** Madonna

<IJ, Painting/Sculpture>

15. For 10 points each, answer the following about Johann Bernhard Fischer von Erlach, who is often called the greatest Austrian architect of the Baroque period:

[10] He designed this massive palace in Vienna, which has approximately 1,500 rooms. It contains a "Gloriette," or a garden building, dedicated to "Just War."

ANSWER: **Schonbrunn** Palace

[10] Much of Fischer von Erlach's work was inspired by these French country houses, which are sometimes compared to palaces. A royal one was built at Versailles.

ANSWER: **chateaux**

[10] Fischer von Erlach may be best remembered for *A Plan of Civil and Historical Architecture*, which contains the first "scientific" analysis of these buildings. Satyros and Pythius of Priene built one of these.

ANSWER: Seven **Wonders of the Ancient World**

<IJ, Other Art>

16. This entity is said to be "halfway between things abstract and things not abstract" according to a book by Pietro Pomponazzi. For 10 points each:

[10] Name this object, which is situated between "angelic" and "demonic" things according to a work of theology by Marsilio Ficino.

ANSWER: the immortal **soul**

[10] Both Pomponazzi and Ficino were attempting to provide a defense of this philosopher, whose arguments for the immortality of the soul are presented in the *Phaedo*.

ANSWER: **Plato**

[10] This other Italian philosopher believed that man's possession of the soul made him "greater than all nature" according to a book called *On the Immortal Soul*. The idea that man was free from a hierarchy appears in his *Oration on the Dignity of Man*.

ANSWER: Giovanni **Pico** della Mirandola  
<IJ, Thought>

17. The cyclopropanation reagent found in the Simmons-Smith reaction resembles one of these compounds. For 10 points each:

[10] Name this type of carbon compound which contains a lone pair. IMes [EYE-mez] is a stable example of these compounds.

ANSWER: **carbene**

[10] The first persistent carbenes, synthesized by Arduengo, contained an N-heterocycle bound to two of these bulky groups. These groups consist of 10 carbons in a diamondoid configuration.

ANSWER: **adamantyl** [accept **adamantane**]

[10] The lone pair of a Schrock carbene exists in this spin state with a net spin of 1. Orthohydrogen also exists in this state.

ANSWER: **triplet** state

<AW, Chemistry>

18. For 10 points each, answer the following about *tay al-ard*, a concept that can be best described as “magical Islamic teleportation.”

[10] The vizier Asif ibn Barkhiya uses *tay al-ard* to fetch a throne “within the twinkling of an eye” for this man, in a Sura titled for his ability to understand the speech of ants. Several monuments in his realm were built from a miraculous fountain of molten copper.

ANSWER: **Solomon** [or **Sulaiman** ibn Dawud]

[10] A hadith by al-Baqir reveals that Asif ibn Barkhiya owed his ability to “traverse the earth in the blink of an eye” to his knowledge of a single letter of the greatest of these ninety-nine words.

ANSWER: **names** of **Allah** [or **names** of **God**; or **beautiful names**; or **asmau- llahi l-husna**]

[10] These supernatural beings of smokeless fire, whom Solomon employed as his craftsmen, are credited with possessing the power of teleportation in the same legends that state that they live in lamps.

ANSWER: **djinn** [or **genies**]

<AG, Religion>

19. A paper by David Patterson, Garth Gibson, and Randy Katz introduced this acronym, which describes a configuration of hard drives designed to recover from failures. For 10 points each:

[10] Name this technology. Its level “1” form merely copies data over to multiple disks, while its level “5” form uses parity data.

ANSWER: **RAID** [or **Redundant Array of Inexpensive Disks**]

[10] RAID 0 allows one to access data on a disk drive more quickly since it employs this technique of spreading segments of a set of data across multiple drives.

ANSWER: data **striping**

[10] If a hard drive gets corrupted in a RAID 5 scheme, one can use the “exclusive” form of this binary operation to recover the data. The non-exclusive form of this function outputs “0” if the inputs are both 0 and “1” otherwise.

ANSWER: **OR**

<IJ, Math/Other Science>

20. Richard Nixon pardoned this man after he was convicted of jury tampering. For 10 points each:

[10] Name this president of the Teamsters who has been presumed dead after he disappeared at a Detroit restaurant. And no, you can't find his corpse at Giants Stadium.

ANSWER: Jimmy **Hoffa** [or James Riddle **Hoffa**]

[10] This attorney general spent over five years trying to convict Jimmy Hoffa. He wrote the book *The Enemy Within*, describing Senator McClellan's committee attempts to bring down Hoffa.

ANSWER: Robert Francis **Kennedy** [or **RFK**]

[10] Both Hoffa and this man who preceded Hoffa as president of the Teamsters appeared before the McClellan committee. During this man's appearance, he pleaded the fifth an astonishing 117 times when asked about missing money from the Teamsters' fund.

ANSWER: Dave **Beck** [or David Daniel **Beck**]

<IJ, American History>