ILLIAC -- ILLinois Academic Competition -- Round 3

1. These things are the output of an algorithm developed by Matsumoto and Nishimura that extracts tempered values on a given index. That algorithm for these things builds upon generalised feedback shift registers by applying a twist transformation. John von Neumann developed the middle-square method to output these things. This (*) kind of number can be approximated by a Mersenne Twister for tasks like Monte Carlo simulations. A seed can be used to create this kind of number from a pseudo-generator of these numbers -- which are used to model stochastic processes. For 10 points, name this kind of number generated for the purpose of simulating events like coin flips and dice rolls.

ANSWER: pseudo<u>random</u> numbers [do NOT accept or prompt on just "numbers"] < Michael Etzkorn | *Other Science - CS* >

2. In one novel by this author, the narrator works at the town library after earlier having a knife pushed into his eyes and his shadow cut off. An artist created by this author discovers a 7th-century style painting that depicts Don Giovanni's murder of the Commendatore. In another novel by this author, the odd-chapters' protagonist runs away from home and meets his alter ego "the boy named (*) Crow" -- while the story of Nakata is told in the even-chapters. This author begins a novel with Kumiko interrupting her husband Toru's spaghetti cooking session to request that he find their missing cat. For 10 points, name this Japanese novelist of *Kafka on the Shore* and *The Wind-Up Bird Chronicle*.

ANSWER: Haruki <u>Murakami</u> < Brad McLain | Long-Form Fiction >

3. In the aftermath of this event, police found a business card reading "TNT \$5 per stick - need more." A perpetrator of this event wished to assassinate sniper Lon Horiuchi, who had shot Kevin Harris three years earlier. Prior to this event, its perpetrator used the alias Robert Kling. Charles Porter won a Pulitzer Prize for a picture in the aftermath of this event showing Chris (*) Fields cradling the fatally wounded Baylee Almond. The FBI's raids on Ruby Ridge and Waco were claimed as motivation for this attack. A Ryder truck was used in, for 10 points, what attack by Terry Nichols and Timothy McVeigh which destroyed the Alfred P. Murrah building?

ANSWER: Oklahoma City bombing [accept bombing of the Murrah building before "Murrah" is read] < Sarod Nori / Tyler Vaughan | US History >

4. A scalar potential function that relates the two-dimensional components of this quantity is known as an Airy [this quantity] function. The gradient of this quantity's tensor equals rho times the acceleration vector minus rho times the body force vector. A second-order tensor of this quantity named for Augustin-Louis (*) Cauchy will completely define this quantity at a point. Piezoelectric materials exhibit electric polarization when they have a non-zero value for this quantity. This quantity is in the numerator of the modulus of elasticity, and the shear form of this quantity arises from forces parallel to the plane of the cross-sectional area. For 10 points, name this quantity equal to force per unit area and related to strain.

ANSWER: <u>stress</u>

< Michael Etzkorn | *Physics* >

5. In a novel from this country, a drunk priest chooses to commit suicide by freezing to death, but is saved by Mistress Ekeby. The narrator of another novel from this country kills Teodora and is a 26-inch-tall man named Piccolomini. In addition to being the home of the authors of (*) Gosta Berling's Saga and The Dwarf, an author from this country wrote a play following the wheelchair-bound Jacob Hummel and the student Arkenholz. An author from this country wrote a play that ends after Jean cuts the head off of a canary and convinces the title character to commit suicide with a razor. The Ghost Sonata is set in, for 10 points, what country, home to Selma Lagerlöf, Par Lagerkvist, and the author of the play Miss Julie, August Strindberg.

ANSWER: Kingdom of <u>Sweden</u> < Ethan Ashbrook - *Misc Literature* >

6. This thinker composed several works that can be classified into short, medium, and long versions depending on the level of depth they go into. This thinker described the need to seek a metaphorical interpretation where philosophy and God's law disagreed. That idea was used by this thinker's followers who advanced a separation of theological and philosophical truths known as the doctrine of (*) double truth. Thomas Aquinas referred to this thinker as "the Commentator" for his writings on Aristotle. For 10 points, name this Islamic philosopher who responded to Al-Ghazali's criticism with *The Incoherence of the Incoherence*.

ANSWER: <u>Averroes</u> [or Abu al-Walid Muhammad ibn Ahmad <u>ibn Rushd</u>] < Alex Guan | *Philosophy* >

7. After being born, this deity arrived at Agrae on the Ilissos River leading the Agraea to bestow the epithet Agrotera on this deity. With the help of Nemesis, this deity drove Aura insane by having her raped by Dionysus. This goddess ran between the Aloadae twins, leading them to kill each other with spears. In response to (*) King Oeneus omitting her from yearly sacrifices, this goddess released the Calydonian Boar on Oeneus's lands. This deity turned Actaeon into a deer leading his hounds to devour him after he viewed this virgin goddess bathing nude. For 10 points, name this daughter of Leto, the twin sister of Apollo, and the Greek goddess of the hunt.

ANSWER: <u>Artemis</u> [accept <u>Cynthia</u>; do <u>NOT</u> accept or prompt on "Diana"] < Ethan Ashbrook | *Mythology*, *Stories*, *and Legends* >

8. With its northern neighbor, this country engaged in the month-long Cenepa War in 1995. The Ashaninka people faced enslavement during this country's 19th-century rubber boom. This country's "period of the Aristocratic Republic" began in 1894 when Nicolás Piérola ousted Andrés Avelino Cáceres. MRTA militants overran this country's (*) Japanese embassy and took 72 people hostage in 1996. Abimael Guzmán led this country's communist group -- the Shining Path. This country and Bolivia fought Chile in the War of the Pacific. Alberto Fujimori once led, for 10 points, what South American country that was once the epicenter of the Inca Empire?

ANSWER: Republic of <u>Peru</u> [accept Republica de <u>Peru</u>; accept <u>Piruw Republika</u> or <u>Piruw Suyu</u>] < Jonathan Lau | *Non-European, Non-Commonwealth History* >

9. When Giovanni Bellori repudiated this artist for not painting after sculptors like Phidias and Glykon, this artist supposedly replied "nature has given me an abundance of masters." This artist portrayed a subject shakily holding a glass of wine by the stem with three fingers and a black ribbon in his other hand -- in this artist's portrait of *Bacchus*. In a painting by this artist in the (*) Cerasi chapel, Paul lies flat on his back with his arms thrown up. This artist used tenebrism for a painting depicting the title moneylender as his quizzical face is lit up by a light source over Christ's head while Christ points to him. For 10 points, name this Italian baroque master whose dramatic use of lighting can be seen in his version of *The Calling of St. Matthew*.

ANSWER: (Michelangelo Merisi da) <u>Caravaggio</u> < Michael Etzkorn | *Painting and Sculpture* >

10. Over 100,000 messages were sent during this war via pigeons carrying photographic reductions created by the inventor of microfilm. Eugenie de Montijo fled to England with her husband after this war, which came about in part due to a coup in Spain, followed by the "Hohenzollern candidacy." During this war, (*) Marshal Bazaine retreated his Army of the Rhine from the battle of Gravelotte to the town of Metz. The jurisdiction of Alsace and Lorraine were established in the Treaty of Frankfurt towards the end of this war which began in part due to Bismarck's edits to the Ems dispatch. For 10 points, name this conflict between France and a German state, which saw the fall of the French Second Empire.

ANSWER: <u>Franco-Prussian</u> War

< Sasha Rushing | Continental Europe History >

11. In a critique of a book by this author, bell hooks said that one chapter could be seen as "a case study of narcissism, insensitivity, sentimentality, and self indulgence." This author discusses how psychoanalytic theory and mass media helped elevate a "scientific religion" in a chapter titled "The Sexual Solipsism of Sigmund Freud." Another work by this author claims that its title concept "is not (*) 'lost youth,' but a new stage of opportunity and strength;" that work is *The Fountain of Age*. This second-wave feminist surveyed unsatisfied housewives for Smith College before writing a book about "the problem that has no name." For 10 points name this first president of the National Organization for Women and author of *The Feminine Mystique*.

ANSWER: Betty Friedan [accept Bettye Naomi Goldstein]

< Jaden Lucas | Social Science >

12. A character in this film tells one of his coworkers "we don't have any toads here, only human beings" while working in a records office. This film's protagonist makes up a story about a man nicknamed Butter Biscuit while talking to a Topher Grace-played politician with a red-and-white flag behind him. This film opens with a 4-minute interrupted monologue by (*) Alec Baldwin. In this film, Felix's wife Connie tries to set off a bomb at a Colorado College Black Student Union gathering. This 2018 film is dedicated to Heather Heyer. For 10 points, name this Oscar nominee about Flip Zimmerman and Ron Stallworth infiltrating the Ku Klux Klan, directed by Spike Lee.

ANSWER: BlackkKlansman (Black Klansman)

< Ethan Ashbrook | *Misc - Film* >

13. Three layered examples of this musical form make up the Agnus Dei of Josquin des Prez's (day-PRAY's) Missa l'homme armé sexti toni. Each section of Johannes Ockeghem's Missa prolationum uses the "mensuration" variety of this musical form. A piece using this form was originally paired with a gigue (jeeg) and features a basso continuo that plays (*) (read slowly) "D A B F-sharp G D G A." One section of The Musical Offering is an example of the "crab" or "retrograde" form of this musical form, and this form makes up every third Goldberg Variation. In this contrapuntal form, voices repeat the same theme while beginning at different times. For 10 points, name this musical form which titles a Pachelbel work in D major.

ANSWER: <u>canon</u> [accept accompanied <u>canon</u>; accept crab <u>canon</u>; accept retrograde <u>canon</u>; prompt on <u>counterpoint</u>]

< Iain Carpenter | Music >

14. Deposition of this element in the brain causes the "Double Panda Sign", and deposition in Descemet's Membrane causes Kayser-Fleischer rings in the eye. A disease caused by a mutation in ATP7B and diagnosed via low ceruloplasmin levels causes toxic buildup of this element. In eukaryotes, this element and zinc are cofactors for superoxide dismutase. The blue blood of horseshoe crabs results from (*) hemocyanin binding oxygen with two atoms of this element. The ParaGuard is an IUD containing this element, and this metal accumulates in Wilson's disease. For 10 points, name this element that exists in +1 and +2 oxidation states in the body and prescribed as *Cuprum metallicum* in homeopathy.

ANSWER: **copper**< Jonathan Lau | *Biology* >

15. This author mourned a group of people whose "bones lie scattered on the Alpine mountains" in a poem that begins by asking God to "avenge" his "slaughtered saints." This author states that he "argues not against Heaven's hand or will" in one of two poems he addressed to Cyriack Skinner. In another poem, this author described a "two-handed engine" and later commands, "look (*) homeward, Angel, and melt with ruth." Patience states that "they also serve who only stand and wait" in a poem reflecting on this author's blindness. In another poem this author tries to "justify the ways of God to man." For 10 points, name this author of "When I consider how my light is spent," "Lycidas," and Paradise Lost.

ANSWER: John <u>Milton</u> (first clue is referring to "On the Late Massacre in Piedmont") < Mitch McCullar | *Non-Epic Poetry* >

16. An effect named for one of these substances describes the autoacceleration of radical polymerization of some monomers. Size exclusion chromatography is sometimes named for filtration by these substances. A theory of these substances combines the Van der Waals forces with the repulsion forces due to the "electrical double layer" of counter ions to calculate (*) the zeta potential. These substances, described by DLVO theory, often shine blue light due to effective scattering of low wavelengths. The Tyndall effect describes these mixtures that destabilize under flocculation. Aerosols and gels are examples of, for 10 points, what type of mixture of one substance dispersed throughout another substance?

ANSWER: **colloid**s [accept **gel**s **before mentioned**]

<Michael Etzkorn | Chemistry >

17. One character in this story remembers his ancestor being pictured in Dante's *Inferno* and is repeatedly asked the question, "Why tarriest thou?" when he doesn't meet another at an appointed time. The protagonist of this story thinks that he sees a small orange lizard violently die when a drop of water hits its head. In this story, the title character calls a shrub with (*) purple blossoms that sits next to a broken fountain her "sister." Professor Baglioni gives the protagonist a silver vase containing an antidote that kills the title character when she drinks it. For 10 points, name this short story about Giovanni falling in love with the poisonous Beatrice, written by Nathaniel Hawthorne.

ANSWER: "Rappaccini's Daughter"

< Mitch McCullar | Short-Form Fiction >

18. The use of auxins on one crop used in this holiday has lead to an increased number of fruits with the *pitom* intact, thus making them kosher for this holiday. In ancient times, celebrants of this holiday drew water from the pool of Siloam as part of the "Rejoicing of the Water-Drawing House." During this holiday, pine or palm branches called (*) S'chach are used to cover the central structure of this holiday. A bundle of plants including the etrog and lulav is used in this holiday's waving ceremony. The four species are used in, for 10 points, what Jewish holiday commemorating the Israelites wandering in the wilderness, which involves sleeping in three-walled huts.

ANSWER: <u>Sukkot</u> [accept <u>Chag Haasif</u>; accept <u>Chag Ha'Sukkot</u>; accept <u>Feast of Booths</u>; accept <u>Feast of Ingathering</u>; accept <u>Feast of Tabernacles</u>]

< Jonathan Lau | *Religion* >

19. An operation during this conflict had its original name changed due to British troops spray painting "H" on their vehicles while the French sprayed "A" due to a difference in spelling "Hamilcar." Raids on a company office in this conflict began after a radio announcement mentioned the codeword "de Lesseps." This conflict was the center of discussions at the Protocol of Sèvres after which Charles Keightley initiated (*) Operation Musketeer. For helping negotiate the end of this conflict, Lester Pearson won the Nobel Peace Prize, and this conflict began after Israel, France, and Britain invaded the Sinai peninsula. For 10 points, name this conflict centering around Nasser's nationalization of an Egyptian canal.

ANSWER: <u>Suez</u> Crisis [accept <u>Suez</u> Canal Crisis; accept <u>Second Arab–Israeli</u> War; accept <u>Tripartite</u> Aggression; accept Operation <u>Kadesh</u>; accept <u>Sinai</u> War <u>before Sinai</u>]

< Sarod Nori | Classics, Commonwealth or Britain, Other History >

20. Pelts made from these objects were designed by Dustin Shuler who took eight of these objects and skewered them on a long pole in his assemblage piece Spindle. Two mannequins "rot" inside a rainy one of these objects in a Salvador Dali work. Chris Burden nailed himself to one of these objects in his performance piece (*) Trans-fixed. Near Alliance, Nebraska, Jim Reinders replicated Stonehenge using these objects. A body sits mangled in the interior of one of these objects in an Andy Warhol serigraph that is titled Silver [this object] Crash (Double Disaster). For 10 points, name these objects that are lined up in a row in the installation piece Cadillac Ranch.

ANSWER: <u>car</u>s [or <u>automobile</u>s; accept <u>taxi</u>; accept <u>Volkswagen</u>; prompt on <u>vehicle</u>; do not accept or prompt on other vehicles]

< Michael Etzkorn | Other Fine Arts >

BONUSES:

1. This battle was a stunning victory for Michiel de Ruyter and helped the Dutch Republic win a war that lasted between 1665 and 1667, the second of four wars with a similar name. For 10 points each:

[10] Name this battle near Chatham. A failure of the Gillingham Line in this battle led to the capture of the HMS Royal Charles and forced negotiations resulting in the Treaty of Breda.

ANSWER: Raid on the Medway

[10] The Raid on the Medway took place in this country where the Glorious Revolution led to the accession of William III and Mary II as co-monarchs.

ANSWER: Kingdom of **England** [prompt on United Kingdom; prompt on Great Britain]

[10] The events of the Anglo-Dutch wars were recorded in the diary of this Secretary to the Admiralty under Charles II and James II.

ANSWER: Samuel **Pepvs** (*PEEPS*)

< Sarod Nori | Classics, Commonwealth or Britain, Other >

2. Answer some questions about delayed type hypersensitivity. For 10 points each:

[10] Hypersensitivity refers to the hypersensitive reaction of this system responsible for the defense of the body against foreign invaders. The hypersensitivity of this overarching system can cause allergies.

ANSWER: <u>immune</u> system [accept innate <u>immune</u> system; accept adaptive <u>immune</u> system; prompt on <u>Complement</u> system; prompt on <u>adaptive</u> system; prompt on <u>innate</u> system]

[10] Delayment of hypersensitivity is due to a cell-mediated response triggered by these cells that release interferon gamma and interleukin-2 to activate their cytotoxic counterpart. These cells are selectively targeted by the Human Immunodeficiency Virus.

ANSWER: <u>helper T</u> cells [accept <u>CD4+ Th1 helper T cells; prompt on T cells]</u>

[10] Delayed-type hypersensitivity also leads to hyper-activation of macrophages that secrete this cytokine to recruit monocytes to the infection site. When this signalling protein binds to one of its namesake receptors, it can activate NF-kappa-B and the MAP kinase pathway.

ANSWER: <u>TNF</u>-alpha [accept <u>tumor necrosis factor</u>; accept <u>TNF</u>R1 or TNFR2 (receptor type 1 or type 2); accept <u>cachexin</u>; accept <u>cachectin</u>]

< Michael Etzkorn | Biology >

- 3. In the essay "Vesuvius at Home," Adrienne Rich described the tone of this poem's author as "kittenish." For 10 points each:
- [10] Name this poem whose speaker instructs the addressee to not "tell! They'd advertise you know!" after asking the title question. The speaker also notes "how dreary" it is to be "public like a frog!"

ANSWER: "I'm Nobody! Who are you?" [accept but do NOT otherwise reveal Dickinson 260 or 288]

[10] "I'm Nobody! Who are you?" was written by this Belle of Amherst whose other poems include "I Heard a Fly Buzz When I Died" and "Because I Could Not Stop for Death."

ANSWER: Emily (Elizabeth) **Dickinson**

[10] Thomas Higginson said that this Dickinson poem was the only one he "dread a little to print" "lest the malignant read into it more than that virgin recluse ever dreamed of putting there," possibly referring to its final lines in which she exclaims "Ah - the Sea! Might I but moor tonight in thee!"

ANSWER: "Wild Nights! Wild Nights!" [accept Dickinson 249 or 269]

- < Mitch McCullar | *Poetry* >
- 4. This tidally-locked planet has the highest eccentricity out of any planet in the Solar System, resulting in large tidal bulges. For 10 points each:
- [10] Name this smallest terrestrial planet in the Solar System whose orbit lasts just 88 Earth days.

ANSWER: Mercury

[10] This space probe orbited Mercury several thousand times before crashing into its surface in 2015. It was preceded by the Mariner mission of the 1970s.

ANSWER: <u>MESSENGER</u> [or <u>Mercury Surface, Space, Environment, Geochemistry, and Ranging</u>] [10] This planned expedition will be a combined effort between the European Space Agency and Japanese Aerospace Exploration Agency. A gamma-ray and neutron spectrometer on this mission will determine the elemental composition over the entire surface of Mercury.

ANSWER: **BepiColombo**

- < Jonathan Lau | Other Science Astronomy >
- 5. Answer the following questions about Southeast Asian kingdoms influenced by India. For 10 points each:
- [10] This civilization built the temple complex of Mỹ Sơn (me sehn) and controlled the spice trade through their port city of Hội An. This kingdom instituted Hinduism as their state religion after coming in contact with the Indianized kingdom of Funan to the west.

ANSWER: Champa Kingdom [accept nagara Campa; accept Chiêm Thành]

[10] A stone tablet made by this civilization contains the very first written use of the numeral zero as a decimal figure. The Champa sacked this other Indianized civilization's capital of Angkor in 1177.

ANSWER: Khmer Empire

[10] The Khmer civilization was the largest and most powerful civilization to exist in this modern-day country. This country's Khmer Rouge was led by Pol Pot who established many "killing fields" near Phnom Penh (*pa-NOM pen*).

ANSWER: Kingdom of <u>Cambodia</u> [accept prĕəh riəciənaacak <u>kampuciə</u>; accept Royaume du <u>Cambodge</u>]

< Jonathan Lau | Non-European, Non-Commonwealth History >

- 6. Giorgio Vasari's *The Lives* begins with a biography of this artist. For 10 points each:
- [10] Name this Florentine artist whose nickname means "bull-head." This artist likely taught Giotto and took influence from Byzantine models as can be seen in his work *Madonna Enthroned with Angels and Prophets*.

ANSWER: <u>Cimabue</u> (*chee-mah-boo-ay*) [or Cenni <u>di Pepo</u>; accept Bencivieni <u>di Pepo</u>; accept Benvenuto <u>di Giuseppe</u>]

[10] Cimabue painted a fresco of this saint with "Four angels." An Italo-Byzantine style altarpiece by Bonaventura Berlinghieri depicts this saint of Assisi holding up a stigmatic hand and a scene of this saint preaching to birds.

ANSWER: Saint Francis of Assisi

[10] Cimabue painted his *Madonna Enthroned with Angels and Prophets* using gold leaf and paint on this material. Donatello used this material to sculpt his *Penitent Magdalene*.

ANSWER: wood

- < Michael Etzkorn | Painting and Sculpture >
- 7. In one story in which this character appears, he uses the method of "ratiocination" to figure out that the narrator was thinking about the cobbler Chantilly. For 10 points each:
- [10] Name this character. In another story, this character describes a child winning marbles playing "even and odd" and receives 50,000 francs for recovering the title letter.

ANSWER: C. Auguste Dupin [accept either underlined part]

[10] C. Auguste Dupin was a detective created by this author of "The Purloined Letter" and "The Murders in the Rue Morgue."

ANSWER: Edgar Allen Poe

[10] In a story sometimes subtitled "A Sequel to 'The Murders in the Rue Morgue," Dupin solves the mystery of this girl's death. He determines that a sailor murdered this woman and dumped her body in the Seine.

ANSWER: <u>Marie Rogêt</u> [accept either underlined portion; or "The Mystery of <u>Marie Rogêt</u>] < Mitch McCullar | *Short-Form Fiction* >

- 8. As a consequence of this idea, there is no world where "water" refers to something other than H_2O . For 10 points each:
- [10] Name this two-word term for words that refer to the same thing in all possible worlds in which they exist. This term was coined in a series of 1970 Princeton lectures.

ANSWER: **rigid designator**s

[10] This philosopher and logician explored the idea of rigid designators in his work *Naming and Necessity*.

ANSWER: Saul (Aaron) Kripke

[10] Kripke wrote a work titled [this philosopher] *On Rules* where Kripke described the rule-following paradox presented in this thinker's *Philosophical Investigations*. This thinker also wrote *Tractatus Logico-Philosophicus*.

ANSWER: Ludwig (Josef Johann) Wittgenstein

< Ethan Ashbrook | *Philosophy* >

- 9. This work begins with the brass section playing a deep and heavy iteration of a motif representing the sultan Schariar. For 10 points each:
- [10] Name this piece by Nikolai Rimsky-Korsakov named for a storytelling princess from *A Thousand* and One Nights.

ANSWER: <u>Scheherazade</u> [or <u>Shekherazáda</u>; prompt on <u>Opus 35</u>]

[10] The second movement of *Scheherazade* uses a bassoon melody to depict this titular nobleman. In the program piece, this man disguises himself as a fakir *(fah-keer)* to leave his palace and explore the city.

ANSWER: the <u>Kalendar Prince</u> [or "<u>The Story of the Kalendar Prince</u>;" accept "Rasskaz <u>tsarevich</u>a <u>Kalender</u>a"]

[10] While working on *Scheherazade*, Rimsky-Korsakov composed this concert overture. This piece begins in 5/2 time and draws themes from Orthodox liturgical chants in the *Obikhod*.

ANSWER: <u>Russian Easter Festival Overture</u> [accept Great <u>Russian Easter Overture</u>: Overture on Liturgical Themes; accept <u>Svetliy prazdnik</u>; prompt on <u>Opus 36</u>]

< Dylan Bowman | *Music* >

- 10. Answer some questions about poetic parodies. For 10 points each:
- [10] "I chopped down the house that you had been saving to live in next summer/ I am sorry, but it was morning, and I had nothing to do." is one of the variations by Kenneth Koch parodying this plum-addict's poem "This is Just to Say."

ANSWER: William Carlos Williams

[10] Ogden Nash parodied a Joyce Kilmer poem titled for these objects by saying that "unless the billboards fall/ I'll never see [one of these objects] at all." The speaker of a Robert Frost poem says that "one could do worse than be a swinger of [these objects]."

ANSWER: trees [accept "Birches" or logical equivalents like birch trees]

[10] This author described Matthew Arnold and a girl "with the cliffs of England crumbling away behind them" in his poem "The Dover Bitch."

ANSWER: Anthony (Evan) Hecht

< Mitch McCullar | *Misc Literature* >

- 11. This book presents a theory of pleasure and pain assessment based on a distinction between the "experiencing self" and "remembering self." For 10 points each:
- [10] Name this book by Daniel Kahneman that distinguishes between two mental systems -- one that can reflexively complete tasks and another that initiates more difficult cognitive work.

ANSWER: Thinking, Fast and Slow

[10] *Thinking, Fast and Slow* includes documentation of this effect -- examples of which include Kahneman's study on answers to the question "Did Gandhi die before or after the age of 140?" When asked to guess what age Gandhi died after the initial question, participants tended to guess older -- exemplifying this cognitive bias.

ANSWER: <u>anchoring</u> [accept <u>focalism</u>; do <u>NOT</u> accept or prompt on "framing"]

[10] This other psychologist wrote a psychohistory of Gandhi. This theorist proposed eight stages of development and coined the term "identity crisis," which he examined in his book *Young Man Luther*.

ANSWER: Erik (Homburger) Erikson

< Ethan Ashbrook | Social Science >

- 12. Violence plagued the 1970s and 1980s for European countries. For 10 points each:
- [10] This Italian prime minister's Christian Democracy party managed to reach a "Historic Compromise" with the Italian Communist Party, but was kidnapped and killed by the Red Brigades in 1978.

ANSWER: Aldo (Romeo Luigi) Moro

[10] Christer Pettersson was convicted, but was later acquitted, of the assassination of this Swedish prime minister, a vocal opponent of apartheid. He was killed in 1986 after watching the film *Mozart Brothers*.

ANSWER: (Sven) Olof (Joachim) Palme [do NOT accept or prompt on "Lisbet Palme"]

[10] Eleven members of the Israel Olympic team were killed by the terrorist group Black September during the 1972 Olympics in this Bavarian city.

ANSWER: Munich

< Sarod Nori | Continental Europe History >

- 13. Answer some questions about photographer Annie Leibovitz. For 10 points each:
- [10] Annie Leibovitz once mounted one of the gargoyles on the 61st floor of the Chrysler Building in an emulation of this *Life* magazine photographer.

ANSWER: Margaret **Bourke-White**

[10] Annie Leibovitz photographed this artist in Central Park wrapped and tied up -- a reference to his lifelong obsession of wrapping things in fabric with his wife Jeanne-Claude.

ANSWER: Christo Vladimirov Javacheff [accept either underlined part]

[10] Leibovitz is best known for taking photos of Yoko Ono and this Beatle on the day he was shot.

ANSWER: John (Winston Ono) Lennon (MBE)

< Michael Etzkorn | Other Fine Arts >

- 14. This novel follows a group's journey to the wedding of Daranio and Silveria. For 10 points each:
- [10] Name this novel about the two friends, Elicio and Erastro, who are enamored with the title character.

ANSWER: La Galatea

[10] La Galatea is among the books of this character's library, along with works like four sections of *Amadis of Gaul* and *History of the Famous Knight Tirante the White*. Unfortunately, this man's library is burned down by the priest Dr. Perez and a barber.

ANSWER: Don **Quixote** [accept El ingenioso hidalgo **don Quijote** de la Mancha]

[10] La Galatea and Don Quixote are works by this Spanish author.

ANSWER: Miguel de <u>Cervantes</u> Saavedra

< Ethan Ashbrook | Long-Form Fiction >

- 15. In 1911, Heike Onnes discovered this phenomena after he cooled mercury to 4.2 kelvin. For 10 points each:
- [10] Name this phenomenon of having zero resistivity to low currents. BCS theory posits that electrons act like bosons by forming Cooper pairs to explain this phenomenon.

ANSWER: **superconductivity** [accept **superconductor**s; do not accept or prompt on "conductivity"]

[10] In condensed matter physics, these quasiparticles are theorized to exist in superconductors. This fermion quasiparticle is its own antiparticle.

ANSWER: Majorana fermion [do not accept or prompt on just "fermion"]

[10] This other quasiparticle is a collective excitation of the atoms in a substance. Cooper pairs form due to electrons' interactions with this quasiparticle.

ANSWER: phonon

< Nathan Fredman | *Physics* >

- 16. Name some Greeks who fought in the Trojan War. For 10 points each:
- [10] Because Briseis was taken from him, this hero begged his mother Thetis to convince Zeus to join the Trojans in defeating Agamemnon. This hero killed Hector and dragging his body around the walls of Troy.

ANSWER: Achilles

[10] Because of a prophecy that the first Greek to step on Trojan soil would die, Odysseus jumped onto a shield when he landed, making this hero the first to actually "land" in Troy. Hector slayed this husband of Laodamia who was the first Greek casualty in the Trojan war.

ANSWER: Protesilaus

[10] After dueling Hector, this figure received a sword that he used to slaughter a group of sheep and then commit suicide out of shame. That episode was triggered when Odysseus was given Achilles' armor.

ANSWER: <u>Ajax the Greater</u> [accept <u>Telamonian Ajax</u>; prompt on <u>Ajax</u>; do NOT accept or prompt on "Ajax the Lesser"]

- < Ethan Ashbrook | Mythology, Stories, and Legends >
- 17. Guantánamo Bay is on the southern coast of the main island of this country. For 10 points each:
- [10] Name this country where the Bay of Pigs invasion failed to overthrow its Prime Minister and leader of its Communist Party -- Fidel Castro.

ANSWER: Republic of **Cuba** [or República de **Cuba**]

[10] In 2000, a SWAT operation in Miami reunited this boy with his Cuban father. The handling of this boy's custody battle likely cost Al Gore crucial votes in Florida in the 2000 election.

ANSWER: Elián González

[10] This first female Attorney General oversaw the González incident as well as the Waco raid and the conviction of the 1993 World Trade Center bombers.

ANSWER: Janet Wood **Reno** < Sarod Nori | *US History* >

- 18. This country's head of state is called *Drug Gyalpo* or "Dragon King" as the people of this country refer to themselves as Drukpa or "dragons." For 10 points each:
- [10] Name this country whose official language is Dzongkha.

ANSWER: Kingdom of **Bhutan**

[10] Bhutan's government states that its goal is to raise the Gross National value of this quantity for its citizens. Finland ranked first on the World Report for this quantity in 2018.

ANSWER: <u>happiness</u> [accept descriptions of making citizens <u>happy</u> or <u>joyful</u>]

[10] *Drukpa* is also a branch of the Kagyu school of this historical region's branch of Buddhism. The Gelug school of Buddhism of this historical region is led by the Dalai Lama.

ANSWER: Tibet

< Michael Etzkorn | *Miscellaneous* >

- 19. Sir Humphry Davy used this technique to isolate sodium and potassium. For 10 points each:
- [10] Name this technique of driving a non-spontaneous chemical reaction with an electric current.

ANSWER: electrolysis

[10] Electrolysis is great for isolating elements -- including aluminum -- which is why this process uses electrolysis to extract aluminum from aluminum oxide dissolved in molten cryolite.

ANSWER: **Hall**-Heroult process

[10] Electrolysis can even solve cold fusion according to the results of this experiment where an excess heat source was detected in heavy water. Unfortunately, no scientist has been able to replicate the results.

ANSWER: Fleischmann-Pons experiment

< Michael Etzkorn | Chemistry >

- 20. Max Freedom Long founded the Huna New Age Movement claiming that it was based on the practices of these people. It was not. For 10 points each:
- [10] Name these people whose actual practices include Luau (lu-ow) feasts and Hula dancing.

ANSWER: Native <u>Hawaiian</u>s [accept <u>kānaka 'ōiwi</u>, <u>kānaka maoli</u>; prompt on <u>Polynesians</u> or <u>Pacific Islanders</u>]

[10] In Native Hawaiian beliefs, the spiritual energy mana grants authority to these high priests. More generally, this title can be granted to any master of any profession or to master surfers.

ANSWER: Kahuna

[10] These rules governed Hawaiian religious practices as well as gender roles and rules protecting the mana of chiefs. These rules are contrasted with the noa, or common things.

ANSWER: Kapus [or the Kapu system; do NOT accept or prompt on "tapu" or "taboo"]

< Brad McLain | Religion >