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TOSSUPS:

1. **Higgs boson decay modes that produce these particles are only possible via quantum-loop processes involving heavy charged particles. Spontaneous parametric down-conversion splits a “pump” one of these particles into two of these particles that are entangled with perpendicular polarization. Recoil-free emission of these particles was used in a test of general relativity by (*) Pound and Rebka.** Feynman diagrams depict these particles as wavy lines, and these particles are called gammas in particle physics. If an electron absorbs one of these massless particles with energy greater than the work function, the electron is ejected. Planck’s constant times frequency equals the energy of, for 10 points, what quanta of light?

ANSWER: **photons** [accept **gammas** until mentioned]

<JF, Physics>

2. **A composer from this country composed the aleatoric piece *Venetian Games*. Another composer from this country included a *Lento* first movement that shifts between modes in an eight-part canon in a 3rd symphony that features a soprano soloist. A composer from this country wrote a piece for (*) 52 strings in which performers are instructed to choose random pitches relative to the instrument's range to mimic the destruction caused by an atomic bomb. The *Symphony of Sorrowful Songs* and *Threnody for the Victims of Hiroshima* are both modernist works from this country. For 10 points name this Eastern European country home to the composers Witold Lutoslawski, Henryk Gorecki, and Krzysztof Penderecki (“kris-TOF pin-DER-ezt-KEE”).**

ANSWER: Republic of **Poland**

<JH, Music>

3. **In the music video of one song with this title, Novak Djokovic (“JOE-koh-VITCH”) suddenly appears on scene to challenge a referee’s ruling that a tennis ball went out of bounds. That song with this title is by Martin Solveig and Dragonette, who sings that she “just came to say” the title word. This word is followed by the question (*) “is it me you are looking for” in a song by Lionel Richie. In a different song with this title, the singer notes that she has been “wondering if after all these years you’d like to meet” and claims she “must have called a thousand times.” For 10 points, give the title word of the 2015 Adele song in which she says it “from the other side.”**

ANSWER: “**Hello**”

<AS, Pop Culture Music>

4. **During an event at one of these locations, a trapped man cut his own throat to avoid being burned alive by rapidly approaching flames; in a sad bit of irony, he was then saved, but later died of his own self-inflicted injuries. In addition to that location named for Pemberton, the aftermath of an event at one of these places saw Tammany Hall back the future Secretary of Labor Frances Perkins in her efforts to bring about legislation via a Committee on Public Safety. The (*) ILGWU fought for better working conditions after that event in one of these buildings, where locked doors caused 146 women to die in a fire. For 10 points, name this type of building where predominantly-female laborers commonly produced articles of clothing, such as shirtwaists.**

ANSWER: **factory** [accept **mill**; accept Pemberton **Mill**; accept Triangle Shirtwaist **Factory**; accept **manufacturing plant**; accept **workshop**; accept **manufactory**; accept other synonyms that indicate that a product is being mass-produced there]

<DG, American History>

5. **Reducing operating time and using ultrafiltration reduces the risk of post-perfusion syndrome following this procedure. In the “off pump” form of this procedure surgeons use stabilizers to immobilize portions of the target organ. This procedure typically diverts either the saphenous vein or the internal mammary artery to restore normal (*) blood flow. Patients who undergo this procedure are less likely to need revascularization than those who receive stents. The “triple” or “quadruple” form of this surgical procedure refers to how many coronary arteries are obstructed. For 10 points, what surgical procedure creates a detour to allow blood to reach the heart?**

ANSWER: heart **bypass** surgery [accept coronary artery **bypass** surgery; accept coronary artery **bypass** graft or **CABG** (“cabbage”); prompt on open heart surgery or heart surgery]

<JS, Biology>

Note to players: the word “state” in this question refers to a subnational region, not a nation state.

6. **This state contains the well-preserved medieval town of Nördlingen, which rests in a 15 million year old meteorite crater. This state names a dessert consisting of milk thickened with eggs into which whipped cream is folded. Tourists often travel along the Romantic Road, which runs between this state’s cities of Füssen and Würzburg. Wagner operas are performed annually at this state’s (*) Bayreuth festival. This state’s district of Swabia borders Lake Constance and contains Neuschwanstein Castle. This state, home to Nuremberg and Augsburg, also contains Theresa’s Meadow, the site of Oktoberfest. For 10 points, name this large German state that occupies the country’s southwest corner, whose capital is Munich.**

ANSWER: **Bavaria** [accept **Bayern**]

<DG, Geography>

7. **The simplifying effect of this idea on 20th century economic thought is discussed in the first chapter of Jeff Madrick’s *Seven Bad Ideas*. Noam Chomsky explained how the “home bias” inherent in its creator’s use of this term is an argument against neoliberalism. This concept was first introduced in *The Theory of (*) Moral Sentiments*, though it is more closely associated with a book that also describes the division of labor in a pin factory. This metaphor, introduced by an 18th century thinker, underlies laissez-faire economic philosophy and neoclassical economics. For 10 points, give this term describing how market exchange channels individual self interest into socially desirable outcomes, presented in *The Wealth of Nations* by Adam Smith.**

ANSWER: the **Invisible Hand**

<TH, Economics>

8. Starting in 1960, the area surrounding construction grounds for one of these projects saw HIV rates skyrocket relative to the rest of its country, and has led to a new wood reclamation industry in Ghana. A 1955 arms deal with Czechoslovakia was made by one country in its lead-up to building one of these things, which later resulted in the relocation of artifacts from (*) Abu Simbel. Ethiopia is currently arguing with Egypt over the construction of one of these things named for the “Grand Renaissance”. Following loss of British support, Gamal Abdel Nasser’s nationalization of the Suez Canal was intended to provide support for one of these projects on the Nile. Often forcing human migration, for 10 points, name these large structures that produce hydroelectric power.

ANSWER: **dams** [prompt on hydroelectric power plant; prompt on power plant, or similar terms such as power station or power source] (The first sentence clues from Ghana’s Akosombo Dam)

<TM, World History>

9. In an article published in *Green Anarchy*, this man wrote that attacking a McDonald’s or Starbucks was not useful for revolutionaries, and instead suggested attacking producers of biotechnology. As a mathematician, this man gave a “group-theoretical” proof of Wedderburn’s Little Theorem during his time at the University of Michigan. This man wrote that technology erodes human freedom is his manifesto (*) *Industrial Society and Its Future* and he inscribed the initials “FC” on a series of devices he built. In 1971, two years after he resigned from his position as a Math professor at Berkeley, this man built a cabin in Montana to live without electricity and running water. For 10 points, name this American terrorist who conducted a nationwide mail bombing campaign.

ANSWER: Ted **Kaczynski** [or Theodore **Kaczynski**; accept the **Unabomber**]

<LL, Other Academic>

10. A character created by this author creates an artistic work called “The Resurrection Day” which he refers to as his “child.” Rubek and his former model Irena are killed by an avalanche in a play by this man. In another play by this man, cards marked with black crosses indicate the death of a man suffering from tuberculosis of the spine named Dr. (*) Rank. In that play by this author, a character tries to keep his job at a bank via blackmail. That play by this author ends with a woman who had earlier been called a “twittering lark” slamming the door behind her as she walks out on her husband, Torvald. For 10 points, name this playwright of *When We Dead Awaken* who wrote about Nora Helmer in *A Doll’s House*.

ANSWER: Henrik **Ibsen**

<AS, Drama>

11. In *The Savage Mind*, Claude Levi-Strauss claims that the Caduveo’s markings on these features are more complex than surrounding tribes because of a more hierarchical social structure. Studies of the Fore (“faw-ray”) people of New Guinea were used to support a claim that a set of six displays of these features are universal. Duchenne de Boulogne’s (“do-SHIN duh bool-un-yuhs”) photographic studies of the changes of these features was cited by Charles Darwin during his work classifying movements of these things. Paul (*) Ekman compiled an “Atlas of Emotions” by studying short-lived changes in these features. People with prosopagnosia (“prose-AH-pag-no-see-UH”) have trouble identifying people based on this feature. For 10 points, name this location on the human body which may express disgust, fear or surprise.

ANSWER: **face** [accept **facial** expressions; accept micro **expressions**; prompt on head]

<TH, Mixed Social Science>

12. In one essay, this thinker proscribes substituting the quantity of experiences for quality to consider living life “without appeal.” This thinker commends Galileo for not dying for his scientific beliefs by noting “the truth is not worth the stake.” This thinker identified the word “undermined” as highly appropriate in discussing the death of an apartment manager. An essay by this man begins by asserting that the problem of (*) suicide is the only serious philosophical problem. An essay by this thinker concludes by noting “the struggle toward the height is enough to fill a man’s heart” and one must imagine the title figure happy. For 10 points, name this existentialist who outlined his view of the Absurd in *The Myth of Sisyphus* and his novel *The Stranger*.

ANSWER: Albert Camus

<TH, Philosophy>

13. A famously cruel ruler of this polity forced her court jester to consummate his marriage in an ice palace after parading the couple through the streets in a cage atop an elephant and was known for her affair with Ernst Johann Biron. The first female ruler of this polity was supported by the Supreme Privy Council, which attempted to limit aristocratic power. A German-born leader of this empire corresponded with the French writer (*) Voltaire for 15 years. Pugachev’s rebellion was defeated by a ruler of this polity. A long-reigning empress of this empire was replaced by her son Paul I and originally took the throne after the killing of her husband Peter III. For 10 points, name this empire ruled by two leaders named Catherine, both from the Romanov family.

ANSWER: Russia [accept Imperial Russia; accept Russian Empire]

<TH, European History>

14. A novel by this author focuses on the execution of Urbain Grandier, who is accused of seducing an entire convent of Ursuline nuns. This author wrote a novel focusing on the inventor of Small-Clothes trousers who sometimes turns into “the Complete Man” when approaching women. This author of *The Devils of Loudun* also wrote about Theodore Gumbriel in (*) *Antic Hay*, and created a character raised on a reservation in New Mexico by his mother Linda. That Shakespeare-quoting character eventually hangs himself in a lighthouse at the end of a book by this author, which focuses on a dystopia in which people consume the drug soma. For 10 points, name this author who created John the Savage in *Brave New World*.

ANSWER: Aldous Leonard Huxley

<JH, Long Fiction>

15. A ‘premonitory portrait’ of a person with this profession features a classical bust wearing sunglasses while the silhouette of the subject appears against a green background. A bunch of bananas lie in front of a sculptural torso in a painting titled for the “uncertainty” of one of these people by Giorgio de Chirico. An artist who also held this profession painted a naked Newton leaning down to measure with a compass and depicted (*) Urizen in *Ancient of Days*. The Cobbe and Chandros portraits probably depict a famous person with this profession. A member of the Pre-Raphaelite Brotherhood who also held this profession painted *Proserpine* and *Beata Beatrix*. For 10 points, name this profession held by the painters Dante Gabriel Rossetti and William Blake.

ANSWER: poet [accept writer; accept author; accept novelist accept playwright] (the first clue refers to *Premonitory Portrait of Apollinaire* by Giorgio de Chirico)

<TH, Painting>

16. Medea attempted to kill Theseus using a poison derived from this creature. The bile from this creature created the aconite plant. A talking tower instructed Psyche to pacify this creature using the first of her two honey cakes. A hero was purified by Eumolpus at Eleusis in preparation for a task involving this creature; that hero saved Theseus from the (*) chair of forgetfulness shortly before encountering this creature. This creature has one more of a certain body part than his similar-looking brother Orthus. Orpheus played the lyre and sang to put this creature to sleep before rescuing Eurydice. Hercules' final labor was to capture this beast. For 10 points, name this three-headed dog who guards the Greek underworld.

ANSWER: Cerberus

<JH, Mythology>

17. If m plus n plus o is equal to the number of these things, then a closed macro-polyhedral molecule is stable. That rule is an extension of another theory that predicts a cluster with n vertices and n plus 1 of these things will have a *closo* structure. Those skeletal type of these things are used to analyze borane structure in Wade's rules. A valency two lower than expected is seen in groups 13 and 14 due to "inert" examples of these things. (*) VSEPR ("vess-purr") theory predicts molecular geometry based on the strength of the repulsion between these things. Pauli's exclusion principle states that each of these things has one particle with spin up and one particle with spin down. A fully-filled atomic orbital contains one of these things. For 10 points, name these groups of two negatively charged particles.

ANSWER: electron pairs [accept skeletal electron pairs; accept anything indicating there are two electrons; prompt on electrons with "how are those electrons organized?"; prompt on inert pairs or lone pairs with "what particle is in the pair?"] (The first clue is the Jemmis *mno* rule)

<JS, Chemistry>

18. In a poem titled for one of these things, the speaker wanders "home but newly / From this ultimate Thule" after describing "water - still and chilly / with the snows of lolling lily." A book-length poem titled for one of these things opens "Good morning daddy! Ain't You heard?" and stylistically draws from bebop and boogie-woogie music. A different poem asks does one of these things (*) "stink like rotten meat? / Or crust and sugar over / like a syrupy sweet." That poem uses an italicized last line to ask whether one of these things explodes instead of drying up "like a raisin in the sun." For 10 points, Langston Hughes's poem "Harlem" asks what happens to what kind of thing "deferred."

ANSWER: dreams [accept "Dream-Land"; accept a dream within a dream; accept a dream deferred]

<TH, Poetry>

19. The first Christian heresy, Marcionism, used an edited copy of this biblical book as their only Gospel. After claiming to give an "orderly account," this book opens with the muting of Zechariah, the father of John the Baptist. Conservative tradition says that the author of this Gospel was the only one who didn't meet Jesus. Of the (*) synoptic Gospels, this is the one with the most unique material, such as the parables of The Good Samaritan and The Prodigal Son. This Gospel's address to Theophilus is an indicator that it was written by the same man who wrote the Acts of the Apostles. For 10 points, name this Gospel, commonly ascribed to a physician, that comes between Mark and John, and isn't Matthew.

ANSWER: Gospel of Luke

<BK, Religion>

20. Given initial conditions, the Lagrange f and g coefficients determine the conditions at any later point along these things. These things are defined by six classical elements, including the true and mean anomalies. According to Bertrand's theorem, these things are only bound if the central force follows an inverse-square law or the potential is quadratic. The amount these trajectories deviate from a perfect circle is their (*) eccentricity. The ratio of the cube of the semi-major axis of these trajectories to the square of their period is constant according to Kepler's third law. The Earth takes about 365 days to complete—for 10 points—what path that planets follow around the Sun?

ANSWER: orbits [prompt on trajectory until mention; prompt on path until “trajectories”]

<JS, Other Science Astronomy>

21. Golda Meir characterized the leaders of a group known by this name as “not nice people,” prior to a 1971 clash in Jerusalem's Zion Square. That group of this name fought to end discrimination towards Mizrahi (meez-RAH-hee) Jews in Israel, and took their name from an earlier American group. The Free Breakfast for Children program was founded by that U.S. group of this name, which was targeted by the Mulford Act to discourage its members' armed patrols of (*) Oakland, which they called “copwatching.” Eldridge Cleaver led a 1967 protest in which armed members of that group of this name took the floor of the California State Capital. For 10 points, what name was given to a political organization founded by Bobby Seale and Huey Newton, named for a large cat?

ANSWER: Black Panther Party [accept the Black Panther; accept BPP; accept Black Panther Party for Self Defence; accept Israeli Black Panthers; accept HaPanterim HaShhorim]

<TH, Other History>

22. This leader launched the non-profit MiSK Foundation, which partnered with Google to create the *We Are All Online* internet safety program. This leader broke off diplomatic relations with Canada after Chrystia Freeland criticised his jailing of women's rights leaders. This leader imprisoned many of his country's elite in the (*) Ritz-Carlton hotel in his capital. This leader ordered the detention and forced resignation of Lebanese Prime Minister Saad Hariri. This man announced his country's Vision 2030 Project, which will attempt to make his country less dependent on the profits of ARAMCO. This man is heavily suspected to have ordered the assassination of journalist Jamal Khashoggi. For 10 points, name this current crown prince of Saudi Arabia.

ANSWER: Mohammed bin Salman [accept MBS; prompt on Salman]

<JM, Current Events>

23. This author wrote about Old Talle, who attends the wedding feast for his daughter Rose at the house of his estranged oldest daughter Anna before being upset by a wedding song. This author of “The Accursed Bread” wrote a story about a vampiric creature that steals milk and water after the narrator waves at a passing Portuguese ship. This author created a character named Cornudet who whistles the (*) Marseillaise in a story in which a Prussian man forbids a stagecoach from going to Le Havre until he sleeps with Elizabeth Rousset. For 10 points name this author of “The Horla” and “Ball of Fat,” who wrote about Mathilde borrowing the title object from Madame Forestier in “The Necklace.”

ANSWER: Guy de Maupassant

<JH, Short Fiction>

24. During the production of a film from this country, a snowstorm along a central canal caused continuity issues, causing cinematographer Boris Kaufman to point his camera towards the sky to frame characters. In a film from this country, a talking statue tells an artist that to escape his studio he must pass through a mirror, an action accompanied by disembodied shouting. A different film from this country used slow motion to show a dormitory pillow fight. *The (*) Blood of a Poet* and *Zero for Conduct* are from this country, which produced other poetic realist films like *The Grand Illusion* and *L'Atalante* ("La-ta-lahnt"). For 10 points, name this country whose pre-war directors include Jean Cocteau, Jean Vigo, and Jean Renoir.

ANSWER: **France** [accept Vichy **France**] (The first two films refer to *L'Atalante* and *The Blood of a Poet* respectively)

<TH, Film>

BONUSES:

1. Philippe Aries (“ah-YES”) asserted that the concept of this type of person did not exist before the modern era in his book titled *Centuries of* [a concept concerning them]. For 10 points each:

[10] Name this type of person. The United States is the only country in the world not to have ratified a 1990 UN Convention on the rights of this type of person.

ANSWER: **children** [accept **youth**, **teenagers**, **minors**, **kids**, **childhood** or other synonyms]

[10] The study of the roles of children over different time periods is of interest in this academic field, which studies the way historians approach the study of the past and the bodies of historical works on certain subjects.

ANSWER: **historiography**

[10] The aforementioned historian of childhood, Philippe Aries, wrote in this language, as did other members of the Annales School. Another thinker who wrote in this language, Jean-Jacque Rousseau, explained the ideal way to educate a child in *Emile*.

ANSWER: **French**

<TH, Other Academic>

2. Michael Flatley, the self-proclaimed Lord of the Dance, was instrumental in reinventing traditional dance from this country. for 10 points each;

[10] Name this island country famous for jigs and step dances, both of which have been popularized by dance shows like *Riverdance*.

ANSWER: **Ireland**

[10] In Scottish dancing, this is one of the traditional dances alongside the jig, strathspey, and waltz. It is the most popular traditional dance in Ireland and the accompanying music is notated in 2/2 or 4/4 time.

ANSWER: **reel**

[10] The reel is often danced to zydeco music, an accordion-led genre from this US state. Congo Square in this state’s largest city is a historic center for African dance.

ANSWER: **Louisiana**

<JH, Dance>

3. At the Boyle temperature, the second coefficient of this equation of state is zero. For 10 points each

[10] Name this equation which models gases as an infinite expansion in powers of molar density.

ANSWER: **virial** expansion [or **virial** equation]

[10] The first order truncation of the virial expansion is this law. This law, which is equivalent to saying the compressibility factor is one, models its namesake substances with the equation $P \cdot V$ equals $n \cdot R \cdot T$.

ANSWER: **ideal gas** law

[10] For ideal gases, this equation simplifies to $d \cdot P$ over $d \cdot T$ equals $P \cdot L$ over T -squared R . More generally, this equation gives the coexistence curve for two phases in terms of the latent heat of the phase transition.

ANSWER: Clausius-**Clapeyron** equation

<LL, Chemistry>

4. A red robed figure in the central panel of this work sits with a crown at his feet while wearing a three-tiered mitre (“mite-ur”), which may indicate that he represents the trinity. For 10 points each:

[10] Name this 15th century polyptych which shows the three central figures flanked by panels of Adam and Eve and an angelic concert. Its bottom panel shows a group of worshippers adoring a mystic lamb.

ANSWER: **Ghent Altarpiece**

[10] The *Ghent Altarpiece* was created by Hubert and Jan, two Netherlandish painters with this surname. Jan also painted *The Arnolfini Wedding*.

ANSWER: **van Eyck**

[10] This art historian wrote widely about the work of the van Eyck brothers in his book *Early Netherlandish Painting*. Along with Aby Warburg, this thinker is credited with bringing the field of iconography to prominence.

ANSWER: Erwin **Panofsky**

<TH, Painting>

5. Although these items failed to make a significant impact at the Battle of Moremonui, their presence inspired Chief Hongi Hika to expand their usage in raids on other *iwi* throughout the 19th century. For 10 points each:

[10] Name these weapons, which name a series of intertribal conflicts among a certain indigenous group. Pākehā immigrants, such as Jacky Marmon, commonly acquired these weapons in exchange for flax and shrunken heads.

ANSWER: **muskets** [prompt on guns; prompt on firearms; do NOT accept or prompt on other specific types of firearms, as the conflict is specifically called the Musket Wars]

[10] The Musket Wars were fought between the various tribes of this indigenous Polynesian people of New Zealand, whose culture includes intricate face tattooing and the imposing *haka* “war dance.”

ANSWER: **Māori** people

[10] The Maori commonly produced humongous examples of these objects known as *waka*, which could weigh up to 3 tons. Often produced from an entire Totara tree, these items were commonly utilized for war-related purposes.

ANSWER: **canoes** [accept outrigger canoes; accept dugout canoes; prompt on boats]

<TM, World History>

6. This work divides all propositions into two categories: propositions necessarily true through logic and mathematics and those true only if they agree with science and everyday discourse. For 10 points each:

[10] Name this foundational work in logical positivism written by A.J. Ayer. It asserts nearly all statements about metaphysics, theology, and aesthetics to be meaningless because they do not fit the verifiability criterion of meaning.

ANSWER: **Language, Truth, and Logic**

[10] Ayer followed up *Language, Truth and Logic* with a 1940 work on the foundations of this kind of knowledge. This kind of knowledge is gained through the senses and is often contrasted with rational knowledge.

ANSWER: **empirical** knowledge [accept empiricism]

[10] Ayer’s works drew on British empiricism and also work on logical positivism from a “circle” of philosophers based in this European capital. Ludwig Wittgenstein was born in this city.

ANSWER: **Vienna**

<TH, Philosophy>

7. A goofy history by Pseudo-Callisthenes details how the last leader of this polity, rather than being exiled to Nubia, decided to father a kid with Philip II of Macedon's wife, begetting Alexander the Great. Oh yeah, and that leader was also a dragon. For 10 points each:

[10] Name this civilization, whose Thirtieth Dynasty ruler Nectanebo II was overthrown by the Persian ruler Artaxerxes III. Prominent cities within this civilization included Memphis and Giza.

ANSWER: ancient **Egypt** [accept the Egyptian **Late Period**]

[10] The earlier Thirtieth Dynasty pharaoh Nectanebo I was able to repel a different Persian invasion, thanks to a 366 B.C. "Great Revolt" of people in this position. This term basically just refers to regional governors in the Achaemenid and Median Empires.

ANSWER: **satraps** [accept Great **Satraps'** Revolt; accept Revolt of the **Satraps**]

[10] Following Alexander the Great's invasion of Egypt and eventual death, a succession crisis resulted in one man of this name being appointed satrap of Egypt, and founding a namesake dynasty that would last all the way to Cleopatra's reign. An Alexandrian polymath of this surname is most famous for producing the *Almagest*.

ANSWER: **Ptolemy** [accept **Ptolemy** I Soter; accept Claudius **Ptolemy**; accept Claudius **Ptolemaeus**]

<TH, Ancient History>

8. This composer could play every instrument in the standard orchestra except the harp. For 10 points each;

[10] Name this German composer who wrote the piano piece *Ludus Tonalis*. He is better known for the opera *Mathis Der Mahler* and the orchestral *Symphonic Metamorphosis of Themes by Carl Maria Von Weber*.

ANSWER: Paul **Hindemith**

[10] Hindemith believed that solo repertoire was severely limited. Because of this, he wrote one of these compositions for nearly every orchestral instrument. Examples of this form include Beethoven's "Pathetique" and "Moonlight".

ANSWER: **sonata** [accept piano **sonata**]

[10] Hindemith's late sonata for this instrument includes a difficult theme and variation third movement. The most famous concerto for this brass instrument is Ralph Vaughan William's *Concerto in F Minor*.

ANSWER: bass **tuba**

<JH, Music>

9. This poem describes how "Thetis of the crying breasts / Cried out in dismay" after the title object is forged. For 10 points each:

[10] Name this poem in which Hephaestus crafts the title "shining metal" possessed by a hero of the Iliad.

ANSWER: "**Shield of Achilles**"

[10] "Shield of Achilles" was written by this author who wrote "We must love one another or die" in his poem "September 1, 1939."

ANSWER: W. H. **Auden** [or Wystan Hugh **Auden**]

[10] This other poem by Auden begins by imploring the addressee to "Stop all the clocks" and asks to "Let aeroplanes write...He is dead" in the sky.

ANSWER: "**Funeral Blues**"

<JF, Poetry>

10. One of these conditions prevalent in China called *shenkui* is a sense of anxiety associated with the perceived loss of semen. For 10 point each:

[10] Give this term from medical anthropology which describes sets of symptoms only experienced by members of specific societies. Other examples of these conditions include koro among Asian populations and ghost sickness among Native Americans.

ANSWER: **culture-bound** syndrome [accept **culture-specific** syndrome or illness; accept **folk illness**]

[10] The fifth edition of this reference work classifies culture-bound syndromes like Dhat and Susto. This diagnostic work, produced by the APA, is the standard text used for psychiatric diagnosis in the United States.

ANSWER: **D**iagnostic and **S**tatistical **M**anual of Mental Disorders [accept **DSM-V** (“five”)]

[10] The experience of this phenomenon by Hispanic and Mediterranean populations is sometimes cited as a culture-bound syndrome. This term refers to a curse attributed to a malevolent glance.

ANSWER: **evil eye**

<TH, Psychology>

11. Works of this type are the source material for the anthology series *Channel Zero*, the first season of which was based on “Candle Cove.” For 10 points each:

[10] Name this type of story, often anonymously written, that includes works like “Jeff the Killer” and “The Russian Sleep Experiment.”

ANSWER: **creepypastas** [prompt on **copypasta**; prompt on **short story**; prompt on **horror story**]

[10] A critically panned 2018 horror movie was adapted from an iconic creepypasta about this tall figure who often lurks in dense forests. This figure made national headlines in 2014 after two 12-year old girls stabbed a friend to appease this character.

ANSWER: **Slender Man**

[10] Another popular internet-disseminated horror story is the incredibly unsettling “The Enigma of Amigara Fault,” a story by this horror Manga artist. He is also known for *Uzumaki*, about a town obsessed with spirals.

ANSWER: Junji **Ito**

<TH, Pop Culture Mixed>

12. Waves undergoing the specular form of this process are phase shifted by 180 or 0 degrees. For 10 points each:

[10] Name this process in which the incident normal angle is equal to the outgoing normal angle. At Brewster’s angle, a wave with p polarization does not undergo this phenomenon.

ANSWER: **reflection**

[10] The phase shift of the wave undergoing reflection is determined by the difference of this quantity across the reflective boundary. It is defined as the ratio of the speed of light in vacuum to the speed of light in the material.

ANSWER: **index** of **refraction** [accept **refractive index**]

[10] Light waves reflecting off the top and bottom layers of these structures interfere to produce a variety of colors. The quarter-wave stack consists of a series of these structures with alternating high and low indices of refraction.

ANSWER: **thin films** [or **monolayers**; prompt on **films**]

<LL, Physics>

13. *The Anatomy of Dependence* introduced the term *amae* to describe how people from this country uniquely feel a need to be in good favor with those around them. For 10 points each:

[10] Name this country whose unique social groups include parasite singles, freeters, and salary men. In *The Chrysanthemum and the Sword*, Ruth Benedict described this country as having a shame culture rather than the guilt culture of the United States.

ANSWER: **Japan** [accept **Nippon**]

[10] This Japanese-language term describes adolescent and young adults who voluntarily withdraw from social life and live as shut-ins. People in this social group may also be *otaku* who obsess over anime and manga.

ANSWER: **hikikomori**

[10] Many *otaku* participate in the subculture dedicated to this internationally-popular activity, in which fans dress up as and impersonate characters from films, video games, or comic books.

ANSWER: **cosplay** [accept **reiya**; accept **kosupure**]

<TH, Cultural Criticism>

14. Answer some questions about experimental theatre, for 10 points each:

[10] One of the main focuses of the avant-garde theatre movement was interaction with this vertical space in the theatre that is surrounded by a namesake arch. This theatrical feature can be thought of as the “window” which separates the action from the audience.

ANSWER: **proscenium** [accept **fourth wall**]

[10] Breaking the fourth wall was a dramatic tool utilized often by this German playwright to create a distancing effect and encourage the audience to view his works as productions instead of realities. Some of his works include *The Good Person of Szechwan* and *Mother Courage and her Children*.

ANSWER: Bertolt **Brecht**

[10] Bertolt Brecht employed a narrator to break the fourth wall in this play, in which Azdak rules that Grusha is Michael’s true mother because she loves him too much to be able to hurt him by pulling him from the title object.

ANSWER: *The **Caucasian Chalk Circle*** [accept *Der **kaukasische Kreidekreis***]

<JF, Drama>

15. Gods of this domain in China protect the city and are celebrated in miaohui festivals. For 10 points each:

[10] City Gods known as Cheng-huang-shen are gods of these structures. The Yellow Emperor Huangdi is credited with erecting the first of these structures in China.

ANSWER: **walls** [accept **moats**]

[10] King Laomedon tasked Poseidon and Apollo with building the walls of this city. This city was eventually sacked by the Greeks with the help of a wooden horse.

ANSWER: **Troy**

[10] The building of the walls of this realm resulted in the birth of the eight-legged horse Sleipnir after Loki was forced to seduce the horse Svadilfari.

ANSWER: **Asgard**

<JH, Mythology>

16. Rural Free Delivery, or the right for people in remote agricultural areas to receive mail for free, was one political goal of this group, whose midsized conglomerates were named for Pomona, the Roman goddess of agricultural abundance. For 10 points each:

[10] Name this organization, established after Andrew Johnson commissioned Oliver Kelley to take a tour of the southern states. Founded in 1867, it remains the oldest active American agricultural advocacy group.

ANSWER: The **Grange** [accept The National **Grange** of the Order of Patrons of Husbandry; accept **Grangers**]

[10] Perhaps the peak of political power for the Grange movement came via this court case, where Chief Justice Waite upheld the ability for state governments to regulate private industries that affected “the common good.”

ANSWER: **Munn v. Illinois**

[10] For a much more modern agricultural union, one needs to look no further than the United Farm Workers of America, whose founders, Dolores Huerta and Cesar Chavez, are credited with popularizing this affirmative phrase, that also saw use as Barack Obama’s 2008 campaign slogan. You may give either the original phrase or a translation.

ANSWER: “**Yes We Can**” [accept “**Si, se puede**”; accept “**Yes, one can**”; accept “**Yes, it can be done**”]

<JH, American History>

17. In a play titled for this leader, the Duke of Suffolk says that this man’s “conscience crept too close to another lady.” For 10 points each:

[10] Name this king, who in a Shakespeare play is advised by a villainous Cardinal Wolsey to divorce his first wife, Katherine of Aragon. That play ends with the birth of this man’s daughter Elizabeth by Anne Boleyn.

ANSWER: **Henry VIII**

[10] Shakespeare’s Henry VIII features an appearance by an advisor to Henry with this surname, who also appears in Robert Bolt’s *A Man for All Seasons*. Andrew Marvell wrote “An Horatian Ode” on the “return” of a different man who had this surname.

ANSWER: **Cromwell** [accept Thomas **Cromwell** or Oliver **Cromwell**; accept “An Horatian Ode on **Cromwell**’s Return from Ireland”]

[10] Thomas Cromwell is the subject of a trilogy by this contemporary English author of *Wolf Hall* and *Bring Up the Bodies*. She also wrote the short story “The Assassination of Margaret Thatcher.”

ANSWER: Hilary **Mantel**

<TH, Mixed Lit>

18. This island’s capital of Willemstad is known for its brightly colored yellow and orange buildings in a Dutch colonial style. For 10 points each:

[10] Name this Caribbean island that forms the ABC islands along with Aruba and Bonaire. This island is the namesake of a blue liqueur made from the peel of the laraha citrus fruit.

ANSWER: **Curaçao**

[10] Another Caribbean city featuring well-preserved examples of 17th century colonial architecture is this capital of Barbados, once used as a major British garrison.

ANSWER: **Bridgetown**

[10] Much of this country’s colonial architecture was destroyed in a series of earthquakes and fires that devastated Port Royal, Spanish Town, and its capital, Kingston.

ANSWER: **Jamaica**

<TH, Geography>

19. David Lloyd George was born to parents of this nationality and he spoke its language as his native tongue. For 10 points each:

[10] Name this country governed from Cardiff. Prince Charles is the current and longest serving person with the title “Prince of” this country.

ANSWER: **Wales** [accept **Cymru**]

[10] Wales was subjected to English rule after Llywelyn ap Gruffudd (“LEW-el-IN ap GIH-fed”) was killed by this monarch. This king went to war with France against Philip IV to recover the Duchy of Aquitaine.

ANSWER: **Edward I** [accept **Edward Longshanks**; prompt on **Edward**; prompt on **Hammer of the Scots**]

[10] This English royal house originated from a Welsh courtier, Owen, who married into the royal family with the widowed Catherine of Valois. This royal house gained its power during the Wars of the Roses by murdering Henry VI.

ANSWER: House of **Tudor** [accept **Tudors**]

<LL, European History>

20. Porcupine activity and palmitoylation (“pal-meh-toe-eh-lay-shun”) of the central signaling protein in this pathway are essential to creating a concentration gradient. For 10 points each:

[10] Name this pathway which plays an important role in carcinogenesis and embryonic development. The canonical form of this pathway inhibits the degradation of beta-catenin.

ANSWER: **Wnt** signalling pathway

[10] The Wnt (“wint”) pathway’s role in embryonic development was discovered in this winged insect. This model organism was studied by Nettie Stevens and Thomas Hunt Morgan.

ANSWER: **D. melanogaster** [accept **Drosophila melanogaster**; accept common **fruit fly**]

[10] *Wnt1* (“wint one”) was discovered when Nusse and Varmus injected these model organisms with M·M·T·V to study breast cancer. The 2007 Nobel prize was awarded to researchers who created the “knockout” type of these model organisms used for their high homology to humans.

ANSWER: house **mouse** [or *mus musculus*]

<JS, Biology>

21. This system is divided into Brahmins, Kshatriyas (“kuh-SHAT-ree-yuhs”), Vaishyas and Shudras, while Dalits are considered to exist outside this system. For 10 points each:

[10] Give this concept from Hinduism which divides communities into classes represented by different colors and social functions. It is often simplified into dividing society into priest, warrior, merchant and laborer classes.

ANSWER: **varna** [accept **caste** system]

[10] These more localized social groups are sometimes confused with varnas. Hindus within these specialized groups inherit a specific type of *dharma* that is associated with a particular profession like weavers, smiths, or herders.

ANSWER: **jati**

[10] Commentary on the *varna* and *jati* as organizational units of Hindu society appears in a text named for the “Laws of” this first man in Hinduism, who escaped a flood with the aid of a fish.

ANSWER: **Manu** [accept **Manusmriti**]

<TH, Religion>

22. An author from this country wrote about a boy named Jia Baoyu, who is born with a piece of jade in his mouth and who is tricked into marrying Xue Baochai. For 10 points each:

[10] Name this home country of the author of *The Dream of the Red Chamber*, which is also known as *The Story of the Stone*.

ANSWER: People's Republic of **China** [or **PRC**; or **People's Republic of China**; or **Zhongguo**]

[10] This famous Chinese classic novel opens with "what's long divided, must unite; what's long united, must divide." This novel is about the period when China was divided into the states of Wei, Shu, and Wu.

ANSWER: **Romance of the Three Kingdoms** [or **San Guo Yan Yi**]

[10] In *Romance of the Three Kingdoms*, Liu and Sun join forces to defeat Cao Cao ("ts'ow ts'ow") at this historical battle fought at the end of the Han dynasty.

ANSWER: Battle of **Red Cliffs** [or Battle of **Chibi**]

<LL, Long Fiction>

23. Temperatures 3 to 8 degrees colder than today characterize this period and the Younger Dryas ("dry-us"), which came about 14,000 years after this period. For 10 point each:

[10] Give this period of climate history that featured glaciers at their greatest extent. During this period about 26,000 years ago, the Bering Land Bridge emerged and ice covered 25 percent of modern land area.

ANSWER: **Last Glacial Maximum** [or **L·G·M**; accept **Last Glacial Period** or **L·G·P**; prompt on Last **Ice Age**]

[10] The retreat of ice after the L·G·M led to the formation of these geological features from meltwater. Examples of these features in North America formed after the L·G·M include ones named for Agassiz ("a-ga-see") and Bonneville.

ANSWER: glacial **lakes** [prompt on bodies of **water**]

[10] Much of the climate data from tens of thousands of years ago comes from the study of this type of particulate matter produced by oak trees, spruce trees, and grasses. Palynologists study this stuff that is transferred from anther to stigma by bees.

ANSWER: **pollen**

<TH, Other Science Earth Science>

24. In the 2016 presidential election, this woman became the first Native American to receive an electoral vote due to the actions of a faithless elector from Washington. For 10 points each:

[10] Name this activist and politician from the Yankton Sioux Nation who participated in the Dakota Access Pipeline protests. She lost in the primary for a seat in the 2018 election for the South Dakota State House.

ANSWER: Faith **Spotted Eagle** [accept Tunkan Inajin **Win**]

[10] Spotted Eagle criticized Donald Trump for calling this Massachusetts senator "Pocahontas" for claiming Native American ancestry. This politician is running as a Democrat in the 2020 presidential election.

ANSWER: Elizabeth **Warren**

[10] In February 2019, Warren was introduced to speak at a Native American conference by Deb Haaland, a US representative from this state. Haaland is a member of the Laguna Pueblo Nation, which is based in this state.

ANSWER: **New Mexico** [accept **NM**]

<LL, Current Events>