1. In this section of a larger work, one character compares the law to a spider's web that can be broken by big insects and only catches smaller ones. This passage ends when an illiterate man can't answer a riddle about what work should be done during months with Rs in their names. One character in this passage explains the nature of quantity, measurement, weight, and time after asking a man to describe the sky, the earth, the sea, the night, and love. The short story "The End" imagines the two participants in this passage meeting for the second time, with one killing the other. That story was written by (*) Borges, whose essay "The Argentine Writer and Tradition" notes that this passage dispenses with local color and deals with abstract philosophical themes. At the start of this passage, a black man challenges a character who murdered his brother in a duel, with both characters accompanied by their guitars. For 10 points, name this competition between two gauchos that takes place near the end of a poem by Jose Hernandez.
ANSWER: **singing contest** in **_Martin Fierro_** [or the **payada** in **_Martin Fierro_**]

2. The court's role as established in this decision, according to _United States v. 14.38 Acres of Land Situated in Leflore County, Mississippi_, is "not intended to serve as a replacement for the adversary system". Superseding _Frye v. United States_, it accounted for rules subsequently adopted by Congress governing the application of the Federal Rules of Evidence. The Court's decision quotes Karl (*) Popper's _Conjectures and Refutations_, and a later case, _Kumho Tire Co v. Carmichael_, extended the standard established in this case to technical as well as scientific matters. Empirical testing and acceptance in the scientific community, as well as relevance and reliability, are included in this case's namesake standard. For 10 points, name this Supreme Court decision which made trial judges the gatekeepers for expert testimony.
ANSWER: **_Daubert_** v. Merrell Dow Pharmaceuticals, Inc.

3. Berman and Laitin claim that this phenomenon is particularly likely to be perpetuated by members of public good-providing clubs against "hard" targets. An "outbidding" model of this phenomenon was developed by Mia Bloom. A 2005 book about this phenomenon claimed that occupation by democracies was likely to lead to this action. That book about this action by Robert Pape was criticized for selecting on the dependent variable in analyzing incidents of this action including several in 1995 involving (*) naval vessels in Jaffna. Those incidents were perpetrated by a "Black" group that was created to engage in missions ending in this action by the LTTE. For 10 points, identify this subject of _Dying to Win,_ a strategy often employed by terrorists expecting martyrdom.
ANSWER: **suicide bomb**ing or **suicide attack**ing or **suicide terror**ism [prompt on "bombing" or "terrorism"]

4. Jean Tijou created ironwork screens for this place's gardens. This place's outer walls are decorated with Giovanni di Maiano's terracotta roundels depicting Roman emperors. Godfrey Kneller painted a series of portraits of the "beauties" of this place, whose art collection houses Andrea Mantegna's _Triumphs of Caesar_. Its grounds include the oldest grapevine in the world, which was originally planted by Capability Brown, as well as a massive trapezoidal hedge maze. After the Glorious Revolution, William and Mary tasked Christopher Wren with remodeling this place in hopes of creating an English rival of Versailles; however, those efforts broke off in 1694, giving this place a mix of Baroque and (*) Tudor architecture. Thomas Wolsey lavished an enormous amount of money building this place, where Jane Seymour died in childbirth. For 10 points, name this favorite pleasure palace of Henry VIII, which hosted a 1604 conference that led to the creation of the King James Bible.
ANSWER: **Hampton Court** Palace

5. This man once crushed the legs of a camel by throwing a knucklebone at it, leading to a confrontation with a giant warrior riding a rhinoceros. An old man in a dream stated that no one should learn this man's real name until age 12, leading him to be called "big fool" for most of that time. As a child, this figure took great delight in hiding the pipe of his caretaker, whose lambs he and his companions would often steal for food. This figure's mother cried continuously for tiger meat during her pregnancy, leading to forty families searching for it. This man's father gave him the horse (*) Toruchar before handing him off to the shepherd Oshpur for education. This man, who was born with a clot of blood in his hand, is nominated for leadership by his

father Jakib after he saved Osphur from an attack by the Kalmyks. The story of this figure, along with the stories of his son Semetei and his grandson Seitek, were compiled by Toktogul into a half-million line epic detailing his victories over the Oirats and the Chinese. For 10 points, name this hero of the national epic of Kyrgyzstan.
ANSWER: **Manas**

6. A subset of these works forms the core of the artist Alistair Gentry's performance project "One-Eyed Monster." In a recent historical work, Kevin Birmingham referred to these works as "the secret headwaters of modern literature," and the canonical compilation of these works is the out-of-print three-volume collection edited by Richard Ellman. One of these works intended for Harriet Shaw Weaver describes Jung and Freud as, respectively, Tweedle-dum (*) and Tweedle-dee. Probably the most famous subset of these works contains one in which the writer imagines fucking the farts out of his lover, among various other sexually explicit acts; that extant subset of these works was written in 1909, five years after their author's first outing with their addressee on what would become "Bloomsday." For 10 points, identify these correspondences written to such people as Sylvia Beach and Nora Barnacle by the author of *Ulysses* and *Finnegan's Wake*.
ANSWER: **letters** of James **Joyce** [accept any more specific answer such as "Joyce's letters to Nora"]

7. This monarch achieved a temporary cessation of hostilities in his nation by agreeing to the Peace of Monsieur, but resumed warring for another year until lack of funds forced him to sign the Peace of Bergerac. Before becoming king, this monarch achieved great military fame with victories at Jarnac and Moncontour, after which he put forth his candidacy for the Polish throne only to abandon it after the death of his brother. Anne de Joyeuse and Jean-Louis de Nogaret were two favorite companions, or *mignons*, of this ruler. This monarch was forced to flee his capital during the Day of the (*) Barricades, but after retreating to Chartres he arranged for the assassination of Louis, cardinal of Lorraine, and Louis' brother. This king ascended to the throne following the death of his brother Charles IX, and the death of another of his brothers, Francois, duc d'Alencon, ensured that the throne of this favorite son of Catherine de Medici would go to a Protestant rival. For 10 points, identify this French ruler whose assassination by the monk Jacques Clement ended the Valois dynasty, and who was opposed in a 1585-89 war by Henry of Navarre and Henry the Duke of Guise.
ANSWER: **Henry III** [prompt on **Henry**]

8. Jim Samson has argued that one of these pieces can only be explained by a two-key scheme of F major and A minor in a chapter on "Alternatives to Monotonality in" their composer. The Klindworth edition of the first of these pieces controversially replaces the E-flat in the last bar of the introduction with a D. That first piece in this group ends with a "Presto con Fuoco" coda, and unusually begins with an arpeggiated Neapolitan chord, in this case an A-flat major chord in first inversion. While the other pieces in this group are all in (*) 6/8 time, that first piece in the group begins in 4/4 and later transitions to 6/4, then back to 4/4. That first member of them is in G minor, while the second piece in this set of four is dedicated to Robert Schumann, who claimed that the fourth one was inspired by the poem "The Three Budrys" by Adam Mickiewicz. For 10 points, name this set of four pieces by Frederic Chopin, which share their name with an old French poetic form.
ANSWER: Frederic **Chopin**'s **Ballades** [Chopin's name not required after it is read]

9. Ernest Sosa modified this theory to include a "safety condition", and Saul Kripke's objection to it concerns a field of fake and real barns, with only real ones painted red. Two objections raised alongside the presentation of this theory were the idea of a grandmother who doesn't know her grandson is sick and someone seeing an event through glancing; those objections are solved by adding a "method" condition. A key objection to this theory is that is lacks closure, leading to the "abominable conjunction" of being able to affirm, for example, that you have two hands but not that you're a (*) brain in a vat. This theory gives the "correct" response to the overdetermined-death problem and the Gettier problem, and it has two conditions: first, if a proposition were true, that a person S would believe it, and second, that if a proposition weren't true, that S wouldn't believe it. For 10 points, name this epistemological theory espoused in *Philosophical Explanations* by Robert Nozick.
ANSWER: **truth-tracking** [or the **tracking** theory of truth; accept reliabilism]

10. It has nothing to do with "red man syndrome", but an unusual side effect of vancomycin is a linear bullous dermatosis caused by this protein. People with a selective deficiency of this protein can undergo anaphylactic shock if transfused with whole blood. This protein can be selectively purified using Peptide M

and SSL7, and it binds to CD89 on effector cells. This protein and complement factor 3 form complexes in blood vessel walls in Henoch-Schonlein purpura. This protein contains an unusual glycosylated proline-rich hinge region. M cells in the intestinal wall allow this protein and its binding partners to transcytose into (*) Peyer's patches. One section of this protein is encoded by the alpha-1 and alpha-2 regions of a particular locus, which are switched to using TGF-beta signaling. This protein polymerizes through the action of its J-chain. Colostrum is particularly rich in this protein, which is responsible for the passive immunity transmitted to infants through milk. For 10 points, name this antibody isotype that exists as a dimer, and is heavily present on mucosal surfaces and secretions.
ANSWER: **IgA** [or **immunoglobulin A**; prompt on **immunoglobulin** or **antibody**]

11. The ADHM method provides an algorithm for finding solutions with finite non-zero action in theories of this type. That work builds on two joint papers by Atiyah, Hitchin, and Singer, who introduced the notion of the self-dual connection which gives the absolute minimum for a functional associated with a theory of this type. The basic equations of this type of theory state that the exterior covariant derivative of the curvature and the Hodge star operator applied to the exterior covariant derivative of the Hodge star operator applied to the curvature are both zero. The task of proving that for any simple compact gauge group, (*) one of these theories exists in *R4*, along with an associated non-zero mass gap, is an unsolved Clay Institute Millennium Problem. The Standard Model is an example of a theory of this type with the SU(3) x SU(2) x U(1) gauge symmetry group. The simplest non-abelian gauge theory is a theory of this type. For 10 points, identify these types of gauge theories named for the two scientists who proposed them in a 1954 paper.
ANSWER: **Yang-Mills** theories [prompt on "**non-abelian gauge** theory" before mention]

12. Visitors to this country can view prehistoric rock art paintings depicting giraffes and elephants at the Acacus Mountains. The Zliten mosaic was discovered in this country, whose traditional cuisine includes zummeeta and bazeen. The Garamantes developed an extensive civilization in this country, where the triumphal arch of Marcus Aurelius was built at a city once named Oea. In 1983, this country began construction on a massive irrigation project called the Great Man-Made River. The UNESCO World Heritage Site of (*) Sabratha is located in this country, whose government was once officially called the "Jamahiriya." It's divided into three main regions, including a desert-covered southwestern region called Fezzan. The birthplace of Septimius Severus, this country was home to the Roman cities of Leptis Magna and Cyrene. For 10 points, name this North African country whose major cities include Benghazi and Tripoli.
ANSWER: **Libya**

13. Mark Jones solved the problem of ambiguous types in this language by introducing the concept of functional dependencies into it, while John Hughes introduced a generalized computation model into this language known as "arrows." The original committee that designed this language was co-chaired by Simon Peyton Jones and Paul Hudak, and this language borrowed heavily from David Turner's Miranda, including the syntax of its list comprehensions. Two "greater than" (*) signs followed by an "equal" sign are used in this language as syntactic sugar for the "bind" operator, and this language uses type classes to implement parametric polymorphism. The Glasgow version is the most popular compiler for this strongly-typed purely functional language which makes heavy use of the monad construction to chain computations and avoid side effects. For 10 points, identify the programming language named for an American logician with surname Curry.
ANSWER: **Haskell**

14. While listening to Lord Byron recite lines from this poem, Percy Shelley had a terrifying vision of a woman with eyes instead of nipples and ran screaming out of the room. This poem's final lines discuss a father who paradoxically expresses his love for his child "with words of unmeant bitterness." In this poem's second part, a Baron misinterprets his bard's cautionary dream of a bright green snake wrapped around a white dove because he is preoccupied with mending his childhood friendship with Roland de Vaux of Tryermaine. At the beginning of this poem, its main character, who is often called "the lovely lady," walks into the (*) woods at midnight to pray, where she meets a woman who claims she was seized and carried off by five warriors. In its first part, that woman takes off her clothes to reveal her disfigured body before lying in bed next to the main character and casting a spell on her. This unfinished poem takes place at the castle of Sir Leoline. For 10 points, name this poem whose title character encounters the lesbian vampire Geraldine, written by Samuel Taylor Coleridge.

ANSWER: "**Christabel**"

15. A minor character in this novel, Eva Blake, has the ability to take ambidextrous dictation simultaneously backwards and forwards, and another character in this novel is researching the art of the Flemish painter Herri met de Bles. A male character in this novel cries on seeing Eva's daughter Margaret recite Hopkins' "Spring and Fall," because he sees the girl as a "self-governing… republic of mutually dependent parasites." At the end of this novel, Joe Lovering kills all the rats in his lab before committing suicide, which ruins the romance between the one character and Jeannette Koss, who had introduced that character to a particular work of music. (*) The main female character of this novel is a reference desk librarian who ends her relationship with Keith Tuckwell after meeting Franklin Todd when the latter asks her to find information on a colleague who works the night shift in a computer room with him. For 10 points, identify this novel in which Jan O'Deigh uncovers the past scientific career of geneticist Stuart Ressler, which was written by Richard Powers and takes its name from a cross between a Poe short story and a set of works for the harpsichord by J.S. Bach.
ANSWER: The **Gold Bug Variations**

16. For a brief time, this city was the northern terminus of submarine mail line serviced by a vessel designated as *C-4*. This city not in the Western hemisphere experienced a series of anti-clerical riots triggered by the call-up of troop reserves, known as the "Tragic Week," and it was in this city that 200,000 people turned out for the funeral of the Durruti, who led anarchist forces in street fights here. In 1910, the CNT labor union was founded in this city, in which it would later fight for control with the army during the so-called "May Events" (*) of 1937. A rebellion in this city erupted on July 19, 1936 when news of a coup launched by the military against the government of Manuel Azana reached it, with the result that the rebels captured the San Andres and Atarazanas barracks. This stronghold of the POUM was captured in January of 1939 by Nationalist troops partly led by the "Butcher of Badajoz" Juan Yague, after which General Alvarez Arenas outlawed the use of this city's regional language in favor of Spanish. For 10 points, identify this Spanish city, the capital of Catalonia.
ANSWER: **Barcelona**

17. This thinker listed hubris, concupiscence, and unbelief as the three hallmarks of estrangement. He posited that humankind's essential state is one of "dreaming innocence" and unfulfilled potential, and that the Fall of Adam and Eve is a myth representing the act of freedom becoming actual. In one book, he distinguished between three types of anxiety according to the ways in which nonbeing threatens being or self-affirmation. He defined faith as the state of being (*) "ultimately concerned," and dismissed the historicity of Jesus as irrelevant, instead stressing Jesus as the Christ as the bearer of "New being." This thinker's magnum opus pairs questions of human existence with theological answers according to his "method of correlation." For 10 points, name this author of *The Courage to Be* and *Systematic Theology*, a German-born theologian who blended Christianity with existentialism.
ANSWER: Paul **Tillich**

18. This painting is the basis for Luis Romero's biography of its artist "All In One Face." Photographs taken during work on this painting confirm that the artist borrowed the image of a chair from Juan Gris's *Still-Life On a Chair*. A woman on a floating raft symbolizes incoming hordes of tourists, which the artist hoped would be repelled by a second instance of the miracle of the flies. The outline of a dog in this painting is based on an optical illusion photograph of a dalmatian by R.C. James. This painting was the last one by its artist that was acquired for the collection of A. Reynolds Morse, and is now in a (*) Florida museum founded by Morse. The shadows across the torso of a woman in this painting also appear to form the outline of a hidden face, with the woman's left breast serving as the nose. That woman wears a skirt which has the shape of a white shirt and green tie, while the woman next to her wears a red cape for her skirt. The face of the artist's wife Gala appears in the upper left surrounded by a halo, and the center of this painting is dominated by a long line of copies of the Venus de Milo. For 10 points, name this Salvador Dali painting inspired by bullfighting.
ANSWER: The **Hallucinogenic Toreador** [or El **torero alucinógeno**]

19. A siege in this conflict may have ended when the rebels saw swarms of flying ants, signaling them to return home and plant their crops. Nelson Reed's book about this conflict describes how it resulted from a system of debt peonage created to grow henequen. It eventually ended because leaders like General May began making deals with chicle-hungry companies like Wrigley instead of continuing to kill white men on

sight. One side in this conflict was initially led by Jacinto Pat and Cecilio Chi, and seized Valladolid before marching towards Merida. Miguel Barbachano notoriously arranged for people captured in this conflict to be sold to (*) Cuban plantations. Later on, the rebels were led by Jose Maria Barrera, who established a base at Chan Santa Cruz and developed a religion based on the "speaking cross." It took place from 1847 to 1901, when the rebels surrendered to the Mexican authorities. For 10 points, name this lengthy guerrilla war fought by Mayans in the Yucatan.
ANSWER: **Caste War** of the Yucatan [or **Guerra de Castes**]

20. NRE's are derivatives of this compound which are used as nonionic surfactants. A mixture of this compound and sodium chloride is commonly used to precipitate and purify virus. "Wax" or "FFAP" stationary phases in gas chromatography are derivatives of this compound, and in mass spec, contamination with this compound results in a +44 ion series and often occurs due to using dish soap to clean glassware. Stealth liposomes have their external surfaces coated with this molecule, and it also coats most nanoparticles used for imaging purposes are coated with it. Macrogol is a form of this compound used as a laxative, and either dextran or this molecule are added to a solution in the osmotic (*) shock technique. A compound used to treat gout consists of this molecule bound to uricase. Conjugating this compound to interferon alfa-2a or 2b increases its half-life in vivo; those drugs are commonly used to treat Hepatitis C infection and are called pegasys and pegIntron. For 10 points, name this polymer whose subunits resemble the active ingredient in antifreeze.
ANSWER: **PEG** [or **polyethylene glycol**]

1. This scene begins with 24 ballerinas entering single file down a ramp and slowly repeating a series of 38 arabesques in unison before performing a waltz. For 10 points each:
[10] Name this difficult ballet blanc set to the music of Ludwig Minkus. Its title characters represent the male lead's opium-induced hallucinations.
ANSWER: "The **Kingdom of the Shades**"
[10] This ballet features "The Kingdom of the Shades" after Solor takes opium to console himself after the death of the title character, Nikiya. It was choreographed by Marius Petipa, and premiered in 1877.
ANSWER: La **Bayadere** [or The **Temple Dancer**]
[10] La Bayadere takes place in this country, whose perceived exoticism made it a popular setting in the late Romantic Era. Other works set here include Leo Delibes' opera Lakme.
ANSWER: **India**

2. This book, which emerged from a course that its author co-taught with Robert Nozick, and divides its title concepts into categories such as "Security and Welfare," "Education," and "Kinship and Love." For 10 points each:
[10] Identify this work of philosophy, a "defense of pluralism" and what its author calls in the first section, "complex equality."
ANSWER: **Spheres of Justice**
[10] This American philosopher wrote Spheres of Justice as well as Just and Unjust Wars and On Toleration.
ANSWER: Michael **Walzer**
[10] In the "Hard Work" section of Spheres of Justice, Walzer praises the essay "The Soul of Man Under Socialism," by this philosopher, poet, and author of De Profundis.
ANSWER: Oscar Fingal O'Flahertie Wills **Wilde**

3. These molecules can be converted to primary amines with bromine and sodium hydroxide in the Hofmann rearrangement. For 10 points each:
[10] Name these carboxylic acid derivatives that occur in peptide bonds. They can be synthesized in a four-component reaction named for Ugi.
ANSWER: **amide**s
[10] The Hofmann rearrangement proceeds through an intermediate with this triatomic functionality. This functional group is generated from an acyl azide in the Curtius rearrangement.
ANSWER: **isocyanate** [do not accept "isocyanide"]
[10] In the Ivanov reaction, an isocyanate reacts with one of these molecules, which is generated when phenylacetic acid reacts with two equivalents of a Grignard reagent. Converting 1,3 diketones to these molecules can be used to selectively alkylate at a site other than the central carbon.
ANSWER: **dienolate**

4. This man attempted to replace Frank McGuire after his heart attack. For 10 points each:
[10] Name this member of the IRA who starved to death in prison as part of a protest after his Special Category Status was removed.
ANSWER: Robert Gerard Bobby **Sands**
[10] Sands was held in this prison during his hunger strike, during which he was elected to parliament as a member of its anti-H block group. Liam Averill escaped from here by dressing up as a woman during a Christmas party.
ANSWER: **Long Kesh** [or Her Majesty's Prison **Maze**]
[10] During the 1920s in the wake of Bloody Sunday, this ship was used as a floating gulag. 150 prisoners here held a hunger strike in 1923.
ANSWER: HMS **Argenta** [or SS **Argenta**]

5. In this play's amazing third act, a sex-crazed Duke dies after kissing a poisoned skull disguised as a beautiful woman, but not before he sees his wife cuckold him with his bastard son Spurio. For 10 points each:
[10] Name this Jacobean play in which Vindice disguises himself as the pander Piato and murders both the Duke and the Duke's immoral son Lussurioso.
ANSWER: The **Revenger's Tragedy**

[10] *The Revenger's Tragedy*'s probable author, Thomas Middleton, may have collaborated with Shakespeare on this play, whose title character gives away all his wealth before moving to the wilderness and becoming a bitter misanthrope.
ANSWER: ***Timon of Athens***
[10] In this city comedy by Middleton, Witgood brings his courtesan to London and pretends that she's a rich widow, setting off schemes by the rival usurers Lucre and Hoard. Philip Massinger used its plot as the basis for *A New Way to Pay Old Debts*.
ANSWER: A ***Trick to Catch the Old One***

6. This book offered the first detailed account of the 1976 collapse of the Grand Teton Dam, and criticized what it called the "mining" of the Ogallala Aquifer. For 10 points each:
[10] Identify this book, subtitled "The American West and Its Disappearing Water," written by journalist Marc Reisner.
ANSWER: **Cadillac Desert**
[10] Among the episodes recounted in *Cadillac Desert* are the perpetual squabbles between the Interior Department's Bureau of Reclamations, and this organization, which was also responsible for the construction of the levees that failed during Hurricane Katrina.
ANSWER: **Army Corps of Engineers**
[10] Another key episode in Cadillac Valley is the effective theft of water from this river via the William Mulholland-constructed Los Angeles Aqueduct.
ANSWER: **Owens** Valley River

7. Answer some questions about the use of phenol-chloroform, for 10 points each:
[10] Phenol-chloroform is used in a type of this procedure applied to DNA, RNA and protein. In this procedure, a mixture is sorted into two immiscible layers based on their constituent's partition coefficients.
ANSWER: liquid-liquid **extraction**
[10] The aqueous and organic layers in phenol-chloroform extraction are often mixed using this method, in which an Eppendorf tube is pressed against a rapidly rotating rubber motor. It is not recommended to do this to genomic DNA as it may shear.
ANSWER: **vortex**ing
[10] this compound is often added to 2% in a mixture of phenol-chloroform as a stabilizer to minimize bubbling and to deactivate RNAses.
ANSWER: **isoamyl alcohol**

8. This work's introduction contains a section on "The Weakness of Military History," which argues that most military historians avoid taking strong positions of their own on the material they research. For 10 points each:
[10] Identify this scholarly work, an analysis of the mechanics and psychology of three encounters involving English troops in roughly the same geographical area: Agincourt, Waterloo, and the Somme.
ANSWER: The **Face of Battle**
[10] This late pioneering British military historian who taught at Sandhurst wrote *The Face of Battle*.
ANSWER: Sir John **Keegan**
[10] One important distinction that Keegan argues existed between Agincourt and Waterloo is the prevalence among the Agincourt troops of this attitude, in comparison with its paucity among the troops fighting at Waterloo.
ANSWER: **religious** belief [accept any answer that mentions "**religion**", prompt on "spirituality"]

9. Answer some things about Japanese painting, none of which have to do with nude people getting attacked by octopuses. For 10 points each:
[10] After Japanese art arrived in the West in the mid-19th century, this artist was quick to seize on its potential in his *Princess from the Land of Porcelain*, which is located in his Peacock Room at the Freer Gallery.
ANSWER: James Abbot McNeill **Whistler**
[10] This late 18th century *ukiyo-e* master was the foremost painter of *bijin-ga* images of beautiful women. His prints such as *Flower of Edo* are characterized by an underlying eroticism expressed through bared necks.
ANSWER: **Kitagawa** **Utamaro** [Kitagawa is the family name, accept either]
[10] Kitagawa Utamaro is not to be confused with the later Utagawa Kuniyoshi, who is perhaps best known for his painting of Mitsukuni defying a giant one of these things, as the witch Takiyasha watches from the left.

ANSWER: a **skeleton** [prompt on "spectre" or "ghost" or any term for an undead spirit]

10. This book argues that readers of literature derive satisfaction from peripeteia, or unexpected plot twists that force them to adjust their expectations. For 10 points each:
[10] Name this series of six lectures first published in 1967, which argues that human beings are uncomfortable with their short lives in the middle of history, and create fictions of the apocalypse to provide meaning to a seemingly chaotic universe.
ANSWER: The *Sense of an Ending*
[10] *The Sense of an Ending* was written by this British literary critic, whose other books include *Romantic Image* and *Shakespeare's Language*.
ANSWER: Frank **Kermode**
[10] In *Romantic Image*, Kermode wrote an influential close reading of the line "how can we tell the dancer from the dance?" from this author's poem "Among School Children," which was published in his collection *The Tower*.
ANSWER: William Butler **Yeats**

11. The Trikaya doctrine of the Yogacara school emphasizes that this thing has three components: Transformation, enjoyment, and dharma. For 10 points each:
[10] Name this concept which is often given a Sanskrit word meaning "the womb of the thus-gone". According to the Nichiren sect, all living things have this property and it is revealed by chanting Namu Myo Renge Kyo.
ANSWER: **Buddha-nature** [or **Buddhahood**, or **Buddha principle** or **Buddha substrate**, or **Bussho** or **Tathāgatagarbha** or **ru-lai-zag**]
[10] Zhaozu famously replied "mu" when asked when one of these creatures has Buddha-nature.
ANSWER: **dog**
[10] Dogen Zenji, the Zen master, equated Buddha-nature with the impermanence of all of reality and with total emptiness, which is given this term. In Theravada, this word is often translated as non-self.
ANSWER: **Sunyata**

12. These divinities were born to a goddess of the maguey plant, who has a ton of breasts to be able to feed all of them. For 10 points each:
[10] Name this group of deities of drunkenness and revelry. Their members included Ometotchli and Macuiltochtli.
ANSWER: **Four Hundred Rabbits** [or **Centzon Totochtin**]
[10] Speaking of groups of four hundred things, after springing fully armed from his mother Coatlicue, this war god proceeds to violently dismember each of his four hundred brothers.
ANSWER: **Huitzilopochtli**
[10] Statues of Coatlicue often depict two of these creatures in place of her head, which grew from the blood that spurted everywhere after her decapitation.
ANSWER: **serpents** [reasonable equivalents ok]

13. While fighting on the trenches of World War I, this author wrote "I Fiumi," or "The Rivers," which he later included in his collection *L'Allegria*. For 10 points each:
[10] Name this Italian poet, whose poem "Mattina," or "Morning," consists entirely of the lines "M'illumino / d'immenso."
ANSWER: Giuseppe **Ungaretti**
[10] Francesco Flora coined the name of this Italian literary movement to describe Ungaretti's poetry. Salvatore Quasimodo and Eugenio Montale are often grouped under this movement, whose poems are usually brief and feature esoteric or obscure language.
ANSWER: **Hermeticism** [or **Ermetismo**; or **Hermetic** poetry]
[10] This Italian poet of *Dialogues with Leuco* wrote the love poem "Death Will Come and Will Have Your Eyes" just before committing suicide in 1950. He produced the Italian translations of many American authors, including Sherwood Anderson, Melville and Faulkner.
ANSWER: Cesare **Pavese**

14. This expression is obtained by adding a term proportional to a mass squared times the product of the vector potential with itself to the standard Lagrangian for electromagnetism. For 10 points each:

[10] Identify this expression first formulated to examine the consequences of a non-zero photon mass by its namesake in 1930; it generalizes to describe relativistic spin-1 particles.
ANSWER: **Proca** Lagrangian or equation
[10] In the static case, the Proca equations of motion result in this solution for the electric potential, in which the potential is given as the charge times the negative exponent of the product of mass and distance, divided by distance.
ANSWER: **Yukawa** potential
[10] An approach similar to the Proca Lagrangian is used to study the effective photon mass in the London theory which derives the existence of this effect, a perfect form of diamagnetism in which magnetic fields are expelled from a superconductor.
ANSWER: **Meissner** effect

15. Answer the following about musical treatises written during the Baroque era, for 10 points each:
[10] This composer used arithmetic division to show that thirds and fifths could be used to 'generate' all other intervals in his *Treatise On Harmony*. He also found success with his operas *Castor et Pollux* and *Hippolyte et Aricie*.
ANSWER: Jean-Philippe **Rameau**
[10] Rameau's method of generating intervals is most similar to this tuning system, which is based on the ratios of small whole numbers. In the 19th century, Hermann von Helmholtz launched attacks on equal temperament in favor of this system.
ANSWER: **just** intonation
[10] This earlier German composer and theorist wrote the three-volume treatise *Syntagma Musicum*, considered one of the main sources of seventeenth-century theory.
ANSWER: Michael **Praetorius**

16. This character's poems are all lowercase and without punctuation, since he's too small to operate the shift key on a typewriter. For 10 points each:
[10] Name this character, a former free-verse poet who sees things "from the under side" after his soul enters a cockroach. Don Marquis created this character, who's in love with the alley cat Mehitabel.
ANSWER: **Archy**
[10] This artist illustrated Marquis' poems about Archy and Mehitabel. Ignatz Mouse constantly schemes to lob bricks at the title character of his comic strip *Krazy Kat*.
ANSWER: George **Herriman**
[10] *Krazy Kat* was beloved by this newspaper tycoon, who ran it in his newspapers until Herriman's death. In 1896, he hired Richard Outcault, the cartoonist of *The Yellow Kid*, away from his rival Joseph Pulitzer.
ANSWER: William Randolph **Hearst**

17. The only woman attested to in this document is Kug-Bu, the Tavern Keeper. For 10 points each:
[10] Name this compendium of rulers that includes five dynasties of Kish and three dynasties of Ur.
ANSWER: **Sumerian King List**
[10] A clay, cuneiform object of this kind named for Weld and Blundell is one of several sources for the Sumerian Kings List. Another object of this kind named for Taylor contains the accounts of Sennachireb's rule.
ANSWER: **prism**
[10] Two dynasties of this city are listed on the Sumerian King's List. This city was conquered by Sargon the Great, but after the collapse of Sargon's empire its king Gudea began to claim divinity.
ANSWER: **Lagash**

18. This essay begins by analyzing how a young poet's statement "I want to be a poet--not a Negro poet" reflects his subconscious desire to be white. For 10 points each:
[10] Name this essay published in *The Nation* in 1926. It argues that the "urge within the race towards whiteness" is the main obstacle to genuine black literature.
ANSWER: "The **Negro Artist and the Racial Mountain**"
[10] This Harlem Renaissance author wrote "The Negro Artist and the Racial Mountain." He wrote a series of poems about Alberta K. Johnson, such as "Madam and the Rent Man" and "Madam and Her Phone Bill," as well as the poem "Ballad of the Landlord."
ANSWER: Langston **Hughes**

[10] In this dramatic monologue by Hughes, the first title character tells the second one that "life for me ain't been no crystal stair," and urges him to keep climbing upwards despite how difficult it might be.
ANSWER: "**Mother to Son**"

19. Originally introduced in the "Neocognitron" paper by Kunihiko Fukushima, the central concept behind these constructs is to arrange the input neurons so as to tile the entire visual field. For 10 points each:
[10] Identify these types of networks, so named because the initial step involves the application of a filtering function that extracts features from the input. They are widely used for image recognition.
ANSWER: **convolution**al neural networks or **CNN**s or **convnets**
[10] Convolutional nets do relatively little pre-processing because their convolutional filters are trained via this method, in which the errors from deeper layers are used to adjust the weights in earlier layers, all the way down to the input layer.
ANSWER: **back**ward **prop**agation
[10] A common way of doing backpropagation is to rely on an algorithm that descends down an error landscape in the direction in which this vector function of the error, symbolized by an upside-down triangle, is smallest.
ANSWER: **grad**ient

20. The Hudson's Bay Company standardized the value of goods at their trading posts using a currency based on the pelts of these animals. For 10 points each:
[10] Name these rodents, the prime staple fur hunted by French traders in North America in the 17th and 18th centuries. Their fur was exported to Europe and used to create stylish warm hats that were much in demand.
ANSWER: **beaver**s
[10] During the heydey of the North American fur trade, these French-Canadian indentured servants used canoes to transport furs and trade goods across the country. They were officially licensed, unlike the coureur des bois.
ANSWER: **voyageur**s
[10] Simon McTavish founded this fur trading company, which employed explorers such as Simon Fraser and Alexander Mackenzie. It competed aggressively with the Hudson's Bay Company until it was forced to merge with it in 1821.
ANSWER: **North West** Company