

(This) Tournament is a Crime

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Packet 3

Tossups

1. **This man invented a circular elevator shaft before the first elevator was even invented in expectation of the imminent invention of a mechanism to transport people up and down buildings. Shortly before his death, this man compiled his political speeches and letters into the collection *Ideas for a Science of Good Government*, which strongly advocated for fiat currency and condemned usury. Although he had zero expectation of winning, this man ran as a third-party candidate in the Election of (*) 1876 representing the Greenback Labor Party. This man convinced the owners of the B&O railroad that steam power was effective by demonstrating his own steam-powered locomotive, called the *Tom Thumb*, in a wildly successful trial in 1830. A school founded by this man ended its policy of giving full scholarships to undergraduates in 2014 and was the site of a speech that ended “let us, to the end, dare to do our duty as we understand it.” For 10 points, name this inventor who founded a namesake university in New York where Abraham Lincoln gave a famous 1860 speech.**

ANSWER: Peter Cooper [accept Cooper Union]

<BL, American History>

2. **A poem by this author ends with the image of ghostly women, “clothed about with flame and with tears,” singing “Songs that move the heart of the shaken heaven, / Songs that break the heart of the earth with pity.” This poet wrote about a force that is “swift to fasten and swift to sever / Hand from hand, as we stand by the sea” in a poem initially set “Before our lives divide for ever.” This poet of “Sapphics” lamented: “Thou hast conquered, O Pale Galilean: / The world has grown grey from thy breath” in a poem about the displacement of (*) paganism by Christianity, which begins “I have lived long enough, having seen one thing, that love hath an end.” This poet of “The Triumph of Time” scandalized society with references to lesbianism and sadomasochism in his *Poems and Ballads*, which followed his verse drama about a mythological boar hunt. For 10 points, name this Victorian poet of “Hymn to Proserpine” and *Atalanta in Calydon*.**

ANSWER: Algernon Charles Swinburne

<AG, Poetry>

3. **An enzyme that catalyzes the synthesis of one of these compounds is used as a diagnostic marker if nose and ear fluid leaks contain CSF. An enzyme that catalyzes the production of these compounds will sometimes also produce a trace racemic mixture of 15-HETE, which rearranges to form specialized pro-resolving mediators called lipoxins. Analogs of these compounds are commonly used in treating open-angle glaucoma. These compounds are administered to keep patent ductus arteriosus open until surgery can be performed. Sir John Vane partly won his Nobel for discovering the (*) I2 one of these compounds, whose more common name ends in “cyclin.” In platelets, an enzyme converts the H2 one of these compounds into the highly-similar thromboxane A1. NSAIDs such as aspirin work by targeting COX-1, thereby inhibiting the formation of these compounds. For 10 points, name these lipids derived from arachidonic acid, which serve as powerful vasodilators and mediators of inflammation.**

ANSWER: prostaglandins

<AG, Biology>

4. **This thinker, who was called “the last living Communist” at his 90th birthday party, claimed that “participation in a mass demonstration at a time of great public exultation” was the greatest physical pleasure behind sex. In his lecture “The Forward March of Labour Halted?” this thinker argued that left-wing parties could no longer only appeal to the working class to stay in power. One of this thinker’s books focuses on massive social, economic, and technological change as the result of the (*) “dual revolution.” Along with Terence Ranger, this man edited a book which cites Scottish tartan and kilts as a prime example of the “invention of tradition.” This thinker wrote a book titled “The Age of Extremes,” which chronologically followed three**

other books titled "The Age of Revolution," "The Age of Capital," and "The Age of Empire," all focusing on the time period lasting from the start of the French Revolution to the outbreak of World War I. For 10 points, name this Marxist historian of a trilogy of works focusing on Europe during the "long nineteenth century."

ANSWER: Eric **Hobsbawm**

<BL, European History>

5. A phenomenon of this type can occur in optical tweezers using Laguerre-Gaussian modes. Phenomena of this type can be linked by Josephson strings in stacks that resemble pancakes. The movement due to these entities in superfluid helium is quantized as Planck's constant over the mass of helium. These phenomena unpair from their opposite counterparts in the Kosterlitz-Thouless transition. Columnar defects can be used to trap these phenomena, which experience a (*) pinning force. Type II superconductors can be penetrated by magnetic field because they form triangular lattices of these structures. Shear causes these topological defects to experience "stretch" and "tilt". These phenomena are described by Helmholtz's three theorems, and are shed around an obstacle in a Von Karman street. These entities name a quantity equal to the curl of the flow velocity. For 10 points name these entities, regions of circular flow around a line.

ANSWER **vortices** [or **vortexes**]

<AW, Physics>

6. The second paragraph of this novel declares: "So we are nearing the end," comparing the remainder of the book to a heap of rotten cherries. Just before this novel's title event, two characters are treated to a banquet put on by society men like a deaf judge and a lion-tamer, culminating in a massive light show projecting a monogram made up of "P" and "C," their first initials. A ravenous, yet artificial spider and a chewed up pencil that periodically gets sharpened for him entertain this novel's protagonist, a teacher of children with disabilities who rears a (*) handicapped son and obese daughter born from the affairs of his wife Marthe. The protagonist of this novel is pampered by the jailer Rodion and is tormented by fellow inmate M'sieur Pierre, who ends up becoming his executioner. For 10 points, name this novel about the final days of the prisoner Cincinnatus C., a Russian-language novel by Vladimir Nabokov.

ANSWER: ***Invitation to a Beheading*** [or ***Invitation to an Execution***; or ***Priglasenie na kazn'***]

<AG, Long Fiction>

7. This body of water is home to Belene Island, which housed a concentration camp in the 20th-century for political dissidents. A popular tourist destination is viewing this river's namesake "Bend" from the Julianus Lookout from the town of Vac. Its namesake "flat" is home to the "Great Rye Island," partly because the rye crop is cultivated there. This river, which is classified as the "Seventh Corridor" is home to the huchen, a type of salmon native to this river. A country built a namesake canal to connect this river to their (*) Tisa River. The Razim-Sinoe lagoon complex can be found south of this river's delta, which is home to the ports of Sulina and Tulcea. The Breg River serves as the source of this river in Germany, which flows for 1,777 miles before emptying into the Black Sea in Romania and the Ukraine. For 10 points, name this second-longest river in Europe.

ANSWER: **Danube**

<IJ, Geography/Current Events/Other>

8. Emile Zola criticized the creator of this painting for incorporating "weak and pitiable drawings" such that it resulted in a cross between a "marine painting" and engraving for an "illustrated newspaper." According to a letter its artist wrote to James Tissot, the intended buyer of this painting was the rich "spinner" William Cottrill, who ultimately did not purchase this painting set in a room with "white walls" and five partially opened windows. Near the bottom of this painting the artist's uncle (*) Michel polishes his glasses. The artist's brother Achille appears in the left of this painting, which depicts his other brother Rene reading a newspaper called *The Daily Picayune*. Men dressed in black wearing top hats process a "sea" of this work's title product in, for 10 points, what Edgar Degas painting showing his uncle's place of business?

ANSWER: *The **Cotton Exchange at New Orleans*** [or *A **Cotton Office in New Orleans***, accept similar answers since it does not have an official title.]
<IJ, Painting/Sculpture>

9. **This piece includes parts for harmonium, mandolin, and an offstage ensemble of four trumpets and three trombones. Its second movement begins in E-flat minor with a single quiet cymbal stroke followed by first violins playing soft octave E-flat tremolos. Afterwards, a description of the “holy shrine of Love” in the “forest that sways here” is whispered by a “Chorus and Echo” of tenors and basses. An “eternal burning brand” and a “glowing bond of love” are evoked by a baritone soloist in this piece, which concludes with the chorus “Alles vergänglichhe.” In this piece, the aria “Ewiger wonnebrand” is sung after a chorus of (*) Holy Anchorites gives way to the character Pater ecstaticus. The Chorus Mysticus exalts the eternal feminine at the end of this 1910 symphony, whose two movements are settings of the closing scene of *Faust, Part II* and the hymn “Veni Creator Spiritus.”** For 10 points, name this symphony by Gustav Mahler titled for the large ensemble required to perform it.

ANSWER: ***Symphony of a Thousand*** [or ***Sinfonie der Tausend***; or ***Symphony No. 8*** by Gustav Mahler]
<EK, Music/Opera>

Moderator note: It may be helpful to look at this answer line beforehand, as it has rather specific instructions.

10. **Antoninus Liberalis describes how four thieves who steal honey from a place of this name turn into birds after their armor melts away. At a place of this name, a youth pits his foster-father Agelaus’s bulls against each other in a contest that Ares easily wins by turning into a bull. As Poseidon incites the Greek army into a massive charge, Hera distracts Zeus at a place of this name by having sex with him, and then having Hypnos put him to sleep, in Book XIV [“fourteen”] of the *Iliad*. At a place of this name, a goddess digs her (*) fingers into the earth to endure the pain of childbirth and creates the dactyls. The Judgment of Paris occurs at a place of this name from which Ganymede is kidnapped. On a mountain of this name, the Corybantes produce a loud ruckus to conceal the cry of an infant god being suckled by the goat Amalthea. For 10 points, give this name shared by a mountain near Troy and the mountain on which the baby Zeus is raised.**

ANSWER: Mount **Ida** [or **Idaeon** Cave; or **Crete** before “Agelaus” is read, prompt thereafter; prompt on cave, **Dictaeon Cave**, or **Psychro Cave** by asking “Where is the cave located?”]
<EK, Legends>

11. **A 2013 book subtitled “A Voyage that Changed the Atlantic World” chronicles the journey of a “ship of death” which spread this disease to multiple ports of call. During one epidemic of this disease, the pseudonym “Anthony Benezet” was used in multiple letters urging people to employ black nurses in the mistaken belief that blacks were immune to it. (*) Charles Leclerc was felled by this disease, which killed off a majority of the French expedition to retake Haiti from Toussaint Louverture. Building on the work of Cuban doctor Carlos Finlay, Army doctor Walter Reed proved that this disease was not caused by drinking polluted water and used his findings to decrease the transmission of this disease among workers on the Panama Canal. Benjamin Rush was a leading figure in fighting an epidemic of this disease which ravaged the then-capital of the United States. For 10 points, name this mosquito-borne illness responsible for the 1793 Philadelphia epidemic.**

ANSWER: **yellow fever** [accept 1793 Philadelphia **yellow fever** epidemic]
<BL, Other History>

12. **The protagonist of this story tells a woman that he’d pay a fortune to live where the sun balances itself on the peak of a small mountain every evening. Protesting a premarital blood test, the protagonist of this story states that even if they were to “take my heart and cut it out” then “they wouldn’t know a thing about me.” At its end, the protagonist prays to God to “Break forth and wash the slime from this earth!” just after his boast that he has the best mother in the world provokes his (*) passenger to retort: “My old woman is a flea bag and yours is a stinking pole cat!” before jumping out of his car. The protagonist of this story teaches the word “bird” to a deaf girl that he marries and abandons at a diner hours later. The title phrase of this story**

follows the warning “Drive carefully” on a highway road sign. For 10 points, name this story in which the one-armed drifter Tom Shiftlet shows up at the doorstep of Lucynell, by Flannery O’Connor.

ANSWER: “The **Life You Save May Be Your Own**”

<AG, Short Fiction/Miscellaneous>

13. **Nagata’s reagent, or diethylaluminum cyanide, is used to facilitate hydrocyanations of this type. One of these reactions initiated by DABCO occurs during the first step of the Baylis-Hillman reaction. The Nazarov cyclization prepares compounds that can undergo this sort of reaction. These reactions are the textbook example of vicinal difunctionalization. One of these reactions occurs during the (*) Stork reaction to alkylate enamines before hydrolysis of the enamine. Gilman reagents help facilitate these reactions by providing the desired thermodynamic product over the kinetic product. These reactions can be performed on enones, and are notated as “1,4” as opposed to their standard “1,2” counterparts. For 10 points, name these reactions which form attack the beta position of an alpha,beta-unsaturated carbonyls, named for the relationship between the double bonds of the alkene and carbonyl.**

ANSWER: nucleophilic **conjugate addition** [accept **1,4-nucleophilic addition** or **Michael addition** or **β-addition** before mention; prompt on partial answer]

<AW, Chemistry>

14. **About a minute into the title theme of Elmer Bernstein's score to *The Magnificent Seven*, the main melody is reprised by a solo for this instrument. A pipe organ solo is interrupted by short repeated-note passages for this instrument at the start of Jerry Goldsmith's score to *Patton*. This instrument plays the title theme in Goldsmith's score to *Chinatown* and in John Williams's score to *Superman*. A wistful unaccompanied solo for this instrument plays at the very start of *The (*) Godfather*. Four of these instruments introduce the title theme in *Raiders of the Lost Ark*. This instrument plays the rising motif in the opening sunrise scene of *2001: A Space Odyssey* - a theme taken from Richard Strauss's *Also sprach Zarathustra*. For 10 points, name this high-pitched brass instrument.**

ANSWER: **trumpet**

<EK, Other Art>

Note: Descriptive answers acceptable.

15. **British explorer Arthur de Carle Sowerby led a 600-mile-long trek to the southwest during this event to rescue as many missionaries as possible. 72 people who launched a precursor to this event in a southern city are buried as martyrs in the “Yellow Flower Mound.” The growing popularity of the Railway Protection Movement helped lead to the outbreak of this event, which marks year zero in the (*) *minguo* calendar. After the success of this event, a debate began over whether to use the “Five Races Under One Union” flag or “Blue Sky, White Sun” flag to replace a flag featuring a dragon on a golden background. The Tongmenghui was a secret organization which was the brains behind this event, which began on October 10 in the year of the “iron pig” with the Wuchang Uprising. Puyi abdicated the throne after—for 10 points—what revolution that established the Republic of China?**

ANSWER: **Xinhai** Revolution [or **Xinhai Geming**; accept **Chinese** Revolution of **1911**; accept **overthrow** of the **Qing** Dynasty; accept **establishment** of the **Republic** of **China** before mention]

<BL, World History>

16. **Men buy a bunch of meat in preparation for a local holiday during the *hajj* month in this country that is more important than the *hajj* itself, a custom described in James Siegel's study *The Rope of God*. In this country, the revivalist Ahmad Dahlan founded Muhammadiyah, which runs hundreds of nonprofit hospitals and schools. More women than men from this country go on the *hajj*, though they have to wait an average of thirty-seven years to do so. Islam was supposedly spread to this country by nine legendary saints, the *wali (*) sanga*. Orthodox Islamic students in this country attend boarding schools known as *pesantren*, which are run by a Shafi'i-following movement known as Nahdlatul Ulama. Employers in this country pay out a mandatory bonus to workers just before Eid al-Fitr, which is known as *lebaran*, and is accompanied by monstrous traffic jams caused by millions of people trying to escape cities like Surabaya. For 10 points, the world's largest Muslim population is found in what Southeast Asian country?**

ANSWER: Indonesia

<AG, Religion>

17. **Hours before his death, a character in this novel begs the protagonist: "tell them im strong tell them im a man." The protagonist of this novel alone remains depressed during a rousing rendition of "Twas the Night Before Christmas." After the protagonist of this novel encourages a character to record his thoughts in a notebook, the resulting diary entry forms the ante-penultimate chapter. The protagonist of this novel alienates Reverend Ambrose with his atheism and his married lover (*) Vivian with his selfishness. A character in this novel repeatedly demands "corn for a hog," having deeply internalized his attorney's argument that he would sooner put a hog in an electric chair than his client; the protagonist's Aunt Mamie implores him to turn the prisoner back into a man. For 10 points, name this novel in which educated black schoolteacher Grant Wiggins struggles to educate the innocent death row inmate Jefferson, by Ernest Gaines.**

ANSWER: A Lesson Before Dying

<AG, Long Fiction>

18. **This work imagines that a group of people have been given the labels "Green" and "Blue" to show the dangers of stereotyping. A strategy the author terms DOWNING is discussed in a part of this book about minimizing so-called "echo effects." This book's chapter that its author co-wrote with the biologist William Hamilton discusses the "conspicuous examples" of "ants and ant-acacias" and "fig wasps and fig trees" as examples of the title concept in "biological systems." Its tips on how to "How to Choose Effectively" include "Don't be too clever" and "Don't be too envious" since this book contends that most of life is not (*) "zero-sum." Its final chapter argues for the "robustness of reciprocity" by discussing Anatol Rapaport's strategy of TIT-FOR-TAT at a computer tournament in which an iterated version of the prisoner's dilemma is played. For 10 points, name this book by Robert Axelrod that discusses the rise of teamwork and coordination.**

ANSWER: The Evolution of Cooperation

<IJ, Social Science>

19. **This work spends a number of pages discussing Weierstrass's resolution of infinitesimals to show the usefulness of "limit myths" of idealized setups that can better articulate the laws of nature. A consideration of the ordered pair as a "philosophical paradigm" is presented in this work's seventh and final chapter, which argues that certain entities are "posited" to exist if they are either empirically tested or have "theoretical utility." This book argues for a "canonical notation" that employs the "maxim of shallow analysis" so that simple terms from "ordinary (*) language" can be "paraphrased" as "singular terms." An essay titled "Ontological Relativity" furthered the ideas of this book, which notes that "rabbit fusion" and "rabbithood" are both equivalent to "an integral part of a rabbit." A thesis about the indeterminacy of translation is presented in, for 10 points, what 1960 book by Willard van Orman Quine?**

ANSWER: Word and Object

<IJ, Thought>

20. **If a polynomial equation Q has a root for this operation applied to the equation Q with respect to a prime p , then there will exist a unique root for Q for this operation applied to a power of p by Hensel's lifting lemma. An odd prime p is expressible as the sum of two squares if and only if a form of this operation applied to p yields one according to one of many results called Fermat's Theorem. For two numbers a and p , a raised to p minus 1 divided by two applied to this operation of p gives the (*) Legendre symbol, giving conditions for when the golden theorem can be satisfied. Both linear and quadratic residue classes are defined using this operation. Wilson's theorem states that a number n is prime if and only if n minus one factorial is congruent to negative one of this function of n . A percent sign is used to represent, for 10 points, what operation that gives the remainder after division?**

ANSWER: modulo [accept modulus; prompt on remainder]

<IJ, Math/Other Science>

Bonuses

1. According to Epiphanius of Salamis, the Ebionites derived most of their theology from a text which was created to accomplish this task. For 10 points each:

[10] Identify this task, which was the subject of Tatian's *Diatessaron*. It often consisted of selecting key episodes from a series of books, and putting them into one text.

ANSWER: **harmonizing the gospels** [accept answers indicating **gospel harmony**; or really any answer suggesting that a person was trying to **reconcile the gospels**]

[10] Because the Gospels of Matthew, Mark, and Luke all are relatively similar in composition as compared to the Gospel of John, they are described by this term.

ANSWER: **Synoptic** Gospel

[10] The two-source hypothesis holds that the Gospels of Matthew and Luke were derived from the Gospel of Mark, and this other *loggia*, which is possibly a now-lost collection of sayings attributed to Jesus.

ANSWER: **Q** source

<IJ, Religion>

2. Lewis Moody plotted this value against Reynolds number for various roughness values. For 10 points each:

[10] Name this quantity equal to four times a similarly quantity named for Fanning. For laminar flow in a circular pipe, it is equal to 64 over the Reynolds number.

ANSWER: Darcy **friction factor**

[10] The Haaland equation and Swamee-Jain equation are both simplifications of this equation that relates the friction factor to relative pipe roughness and Reynolds number. It typically must be solved numerically because being implicit, the friction factor is found on both goddamned sides of the equation.

ANSWER: **Colebrook**-White equation

[10] The friction factor is found in the Darcy-Weisbach equation, which relates the loss of either head or this quantity. Bernoulli's principle states that either potential energy or this quantity decreases when a fluid's speed increases.

ANSWER: **pressure**

<AW, Physics>

3. This ruler is known as "Sandrocottus" or "Androcottus" in many Greek accounts of him. For 10 points each:

[10] Name this ruler, who gave a gift of war elephants to Seleucus I Nicator after the Greek ambassador Megasthenes visited his kingdom.

ANSWER: **Chandragupta** Maurya [only read "Chandragupta" if the player does not get the bonus part]

[10] Chandragupta was the first emperor of this early Indian empire. A later emperor of this empire, Ashoka, converted to Buddhism and issued many edicts.

ANSWER: **Mauryan** Empire

[10] This later writer considered the accounts of Megasthenes and a later visitor to India, Deimachus, to be utter bullshit. His mostly-lost first work, *Historical Sketches*, was intended to be a continuation of Polybius's *Histories* up until the Battle of Actium.

ANSWER: **Strabo**

<BL, World History>

4. For 10 points each, answer the following about ancient Egyptian sculpture.

[10] It is thought that these miniature sculptures, which are amulets for magical purposes, depict dung beetles. The "heart" form of these sculptures were placed over a mummy's heart in tombs.

ANSWER: **scarabs**

[10] Scarabs are often made from this blue solid paste, which is the oldest glazed ceramic known. Many artifacts in the tomb of Ramses the Great are made from it.

ANSWER: Egyptian **faience**

[10] Another artifact made from faience is a game board used in this Egyptian activity, whose exact rules are not known. However, it does involve placing stones in squares.

ANSWER: **senet**

<IJ, Painting/Sculpture>

5. After being rejected by having "The Old Lady Says 'No'" scrawled on the title page, Denis Johnston's play *Shadowdance* premiered at an experimental theater with this name under the new title *The Old Lady Says 'No'*. For 10 points each:

[10] Identify this name. It is the nickname of a drunkard who stumbles into his empty apartment, unaware of the murder of his son Johnny or the desertion of his daughter Mary, at the end of a 1924 play.

ANSWER: **peacock** [or **paycock**]

[10] The Peacock was an annex of the Abbey Theater, where dramatic masterpieces from this present-day country, such as Sean O'Casey's *Juno and the Paycock*, were first staged.

ANSWER: **Ireland** [or **Éire**; or Republic of **Ireland**; or Poblacht na h**Éire**ann]

[10] The "Old Lady" in question, Lady Augusta Gregory, staged numerous plays at the theater for which she transliterated a Hiberno-English dialect spoken in, and named for, this region in Ireland's County Galway.

ANSWER: **Kiltartan** [or **Kiltartanese**]

<AG, Drama>

6. This phenomenon is studied using the ESEEM technique, For 10 points each:

[10] Name this phenomenon that occurs after the application of a 90 degree pulse followed shortly by a 180 degree inversion pulse. It was first observed by Erwin Hahn.

ANSWER: **spin echo**

[10] The spin echo can be measured in apparatuses for performing this technique that can study nuclei with odd nucleon counts such as hydrogen and carbon-13. Spectra in this technique plot intensity against chemical shift.

ANSWER: **nuclear magnetic resonance** spectroscopy [or **NMR** spec]

[10] NMR signals decay over time due to this process, which is described by the T_1 and T_2 time constants that describe the two forms of this process, one of which occurs when spins of the sample interact with each other, and the other occurs when the spin interacts with their environment, or "lattice".

ANSWER: spin **relaxation** [accept spin-spin **relaxation** or spin-lattice **relaxation**]

<AW, Chemistry>

7. This author wrote that the "civilization and the morals of the Americans fall far below their own morals" in her macrosociological analysis of the U.S. *Society in America*. For 10 points each:

[10] Name this 19th-century academic, often said to be the first female sociologist.

ANSWER: Harriet **Martineau**

[10] Martineau's translation of this author's *Course on Positive Philosophy* brought the "law of three stages" and many other elements of positive philosophy into the consciousness of the English public.

ANSWER: Auguste **Comte**

[10] Martineau's magnum opus may be a nine-volume treatise that provides "illustrations" of this subject with a two-word name. A "Contribution to the Critique" of this topic introduced Karl Marx's base / superstructure distinction.

ANSWER: **political economy** [accept *Illustrations of **Political Economy*** or *A Contribution to the Critique of **Political Economy***]

<IJ, Social Science>

8. Because it is the ruler of all animals, this animal's forehead bears the Chinese character *wang*, or "king." For 10 points each:

[10] Name this animal, a white variety of which represents the western direction as the counterpart of Qinglong, or the Azure Dragon. Caishen, the Chinese god of wealth, is often depicted atop this animal.

ANSWER: **tiger** [or **hu**; or **Bai Hu**; or **Xi Fang Bai Hu**]

[10] The tiger is the third animal in this system of Chinese astrology that assigns personality traits to individuals based on the year of their birth according to a twelve-year cycle.

ANSWER: the Chinese **zodiac** [or **shengxiao**]

[10] In a Korean myth, one of these animals eats mugwort and garlic in order to turn into a human when a tiger fails to do so. The Ainu god Kim-un Kamuy manifests as one of these animals.

ANSWER: **bear** [or **kuma**]

<EK, Legends>

9. After a character in this novel escapes Lindenberg Castle with her lover Raymond disguised as the ghost of the Bleeding Nun, their carriage crashes and Raymond flees with the Bleeding Nun herself. For 10 points each:

[10] Name this novel in which the demoness Matilda tempts Ambrosio, inducing him to rape and murder Antonia. It was written by Matthew Lewis.

ANSWER: *The **Monk**; A Romance*

[10] *The Monk* is a major novel in this genre of literary horror, ranking right up there with Horace Walpole's *The Castle of Otranto* and Mary Shelley's *Frankenstein*.

ANSWER: **gothic** novels

[10] This author modeled his novel *The Abbess* on *The Monk*. He is far better known, however, with scandalizing 1790s Britain with a series of audacious Shakespeare forgeries, culminating in his production of the supposedly newly discovered play *Vortigern and Rowena*.

ANSWER: William Henry **Ireland**

<IJ/AG, Long Fiction>

10. Two thousand years ago, the proudest boast was "*civis romanus sum*"—or "I am a Roman citizen." Unfortunately, not everyone could make that boast. For 10 points each:

[10] Name this status of people, especially barbarian tribes, who served Rome as mercenaries and received some privileges but were not conferred any of the benefits of Roman citizenship. Goths with this status were essential in defeating the Huns.

ANSWER: **foederati** [or **foederatus**]

[10] Before the Social War, most Italians were in a sort of limbo between citizen and non-citizen, usually called this three-word Latin term. Marcus Livius Drusus attempted to pass legislation turning people with this status into full citizens, but was assassinated before it could pass.

ANSWER: **civitas sine suffragio** [accept **citizenship without the vote**; accept any answers suggesting that they **are citizens but do not have the right to vote**]

[10] In this century, the Edict of Caracalla granted Roman citizenship to all free men. Rome experienced a period of turmoil in this century known as its namesake "Crisis" during which many emperors, many of them former soldiers, rose and fell in quick succession.

ANSWER: **3rd** century [or **200s**; accept Crisis of the **Third** Century]

<BL, European History>

11. R. A. R. Tricker noted that this phenomenon dissipates when the diffuse reflector is removed from the behind the drops of water that causes it. For 10 points each:

[10] Name this retro-reflection that originates when water drops focus sunlight on a blade of grass. It manifests itself as a bright glow that surrounds the shadow of one's head.

ANSWER: **heiligenschein**

[10] Heiligenschein is seen during this period of time, since the dew that causes it has not yet dissipated. Specifically, this term refers to the period just after dawn but before sunrise, and there exists an evening counterpart to this period of time of the same name, in which the Sun has set but it is not yet dusk.

ANSWER: morning **twilight**

[10] This other similar phenomenon is a ring of light that appears around the shadow of an observer, but is caused by light interacting with a fog or cloud particles. They are often seen in conjunction with Brocken spectres.

ANSWER: **glory** [or **glories**]

<IJ, Math/Other Science>

12. This term comes from a Jacob H. Smith order to "make Samar a howling wilderness" by eliminating all people capable of bearing arms, defined by Smith as people with this characteristic. For 10 points each:

[10] People satisfying this condition were condemned to death, according to an infamous *New York Journal* cartoon which criticized the United States' reprisal for the murder of 54 soldiers in the Balangiga massacre.

ANSWER: "kill everyone **over ten**" [or "Criminals Because They Were **Born Ten Years Before We Took the Philippines**"]; accept anything that mentions killing everyone **older than ten** years old]

[10] The Balangiga Massacre took place in this country, which became a United States colony after the Spanish-American War.

ANSWER: the **Philippines**

[10] This general during the Philippine Insurrection distinguished himself by capturing Emilio Aguinaldo, the leader of the revolt. This target of a Mark Twain satire declared martial law in San Francisco after the 1906 earthquake.

ANSWER: Frederick **Funston** [accept "A Defense of General **Funston**"]

<BL, American History>

13. This artist gathered over three hundred objects that related to eagles in any way and attached a label reading "This is not a work of art" for the installation *The Eagle from the Oligocene to the Present*. For 10 points each:

[10] Name this Belgian conceptual artist, who developed the idea of "institutional critique," challenging the role of museums in the display of art.

ANSWER: Marcel **Broodthaers**

[10] The idea of using found objects as a work of art was taken from this French Dadaist, whose "ready-mades" include *In Advance of the Broken Arm* and *Fountain*.

ANSWER: Marcel **Duchamp**

[10] In another "found work" Broodthaers inserted one of these objects into a portrait of a "dead general." A photograph of the poet David Shapiro shows him wearing sunglasses and using one of these things that belonged to Columbia's president Grayson Kirk.

ANSWER: **cigars**

<IJ, Other Art>

14. The mRNA that codes for these peptides tends to be adenine-deficient and is likely to be found in the first exon. For 10 points each:

[10] Identify this five to thirty long peptide present at the N-terminal end of proteins that belong to the secretory pathway. This peptide is bound by a ribonucleoprotein, and the whole complex is brought to a channel consisting of either SecYEG in prokaryotes or Sec61 in eukaryotes.

ANSWER: **signal** peptide [or **signal** sequence; or localization **signal**; or **localization sequence**; or **transit** peptide; or **leader** sequence; or **leader** peptide; do not accept or prompt on "signal recognition particle"]

[10] The signal peptide-SRP complex couples protein translation with translocation into this organelle, a network of tubelike structures where protein folding, targeting, and modification takes place. The "rough" type of this organelle is studded with ribosomes.

ANSWER: **endoplasmic reticulum** [or **ER**]

[10] Non-secretory proteins do not use the co-translational translocation mechanism described above. Proteins destined for this organelle are instead transported by TOMs and TIMs, after which their signal peptide is cleaved by Hsp70.

ANSWER: **mitochondria** [or **mitochondrion**]

<AG, Biology>

15. In the sixteenth section of this book, a butcher throws out the body of a dead beggar from his shop, because "A man's carcass has no more distinction than the carcass of an ox." For 10 points each:

[10] Name this experimental 1920 prose poetry volume consisting of twenty seven "improvisations" each followed by the poet's commentary in italics. Its prologue asserts that "Nothing is good save the new."

ANSWER: **Kora in Hell: Improvisations**

[10] This book-length epic poem by the same author refrains the dictum "No ideas but in things," and illuminates, in five volumes, the essence of a town powered by the great falls on the Passaic River.

ANSWER: **Paterson**

[10] This American poet of *Kora in Hell* and *Paterson* is best known for his shorter poems, such as "The Red Wheelbarrow."

ANSWER: William Carlos **Williams**

<AG, Poetry>

16. The Drake Equation was initially proposed to mathematically model and resolve this paradox. For 10 points each:

[10] Identify this paradox named for an Italian physicist, asking why humanity has yet to make contact with extraterrestrials, given that the probability of encounter should be so high.

ANSWER: **Fermi** paradox

[10] Stephen Baxter proposed this hypothesis to resolve the Fermi Paradox. This hypothesis holds that a very-advanced civilization is manipulating all our astronomical measurements, and thus we can't detect any signs of life.

ANSWER: **planetarium** hypothesis [accept any answers indicating Earth is part of a motherfucking **planetarium**]

[10] You can help resolve the Fermi paradox by participating in the SETI volunteer computing project that has this suffix in its name. Other projects with this suffix in its name include a distributed project that uses your computer's extra cycles to study the dynamics of protein folding.

ANSWER: **at home** [or **@ home**; prompt on **home**]

<IJ, Geography/Current Events/Other>

17. A notoriously corrupt mayor of this city once held a debate against two rats, representing two of his political opponents; despite the rat debate being a hilarious success, he lost the mayorship of this city to Anton Cermak. For 10 points each:

[10] Name this city, where bloody gangster fighting between rival gangs led by Al Capone and Bugs Moran climaxed in the St. Valentine's Day Massacre.

ANSWER: **Chicago**

[10] This leader of the Untouchables and Prohibition enforcer cracked down hard on Chicago bootlegging, which included busting Al Capone's massive underground crime ring.

ANSWER: Eliot **Ness**

[10] After Prohibition, Ness spent eight years in this Midwestern city, where he reduced corruption, increased penalties against drunk driving, and personally investigated this city's gruesome "Torso Murderer." Despite these efforts, his mayoral bid in 1947 ended in failure.

ANSWER: **Cleveland**

<BL, American History>

18. The first section of this essay oddly focuses on an Arcimboldo-esque painting of a clown's head made of vegetables that the author sees in a hotel lobby. For 10 points each:

[10] Name this essay, in which the author hears haunting screams ringing from the hills as she watches the title event in Yakima, Washington with her husband Gary.

ANSWER: **"Total Eclipse"**

[10] This author included her oft-anthologized essay "Total Eclipse" in the volume *Teaching a Stone to Talk*. She profiled the natural world around her home in Roanoke, Virginia, in her Pulitzer-winning nonfiction narrative *Pilgrim at Tinker Creek*.

ANSWER: Annie **Dillard**

[10] Due to their shared focus on natural themes, Dillard is often regarded as a twentieth-century successor to this American writer, whose book *Walden* was the subject of her MA thesis.

ANSWER: Henry David **Thoreau**

<AG, Short Fiction/Miscellaneous>

19. Answer the following about Marin Marais, the slickest, sickest, meanest musician in the court of Louis XIV, for 10 points each.

[10] Marais played this string instrument that resembles the cello in size and shape. Tragically, it grew out of fashion after the Baroque period.

ANSWER: **viol** [or **viola da gamba**]

[10] Book II, Suite No. 1 of Marais's *Pièces de viole* concludes with a set of this many variations on "La Folia." Beethoven's piano sonata of this number ends with a C major theme-and-variations in 9/16 time.

ANSWER: **thirty-two** [or Piano Sonata No. **32**]

[10] Marais's "The Bells of St. Genevieve" and his variations on La Folia are both in this minor key that Mozart used to write his requiem.

ANSWER: **D minor** [do not accept "D"]

<EK, Music/Opera>

20. This philosopher had to flee from Paris for yet a third time after he praised the practice of inoculation and attacked French religion in his book *Philosophical Letters*. For 10 points each:

[10] Name this philosopher who espoused a philosophy of optimism in *Discourses in Verse on Man*.

ANSWER: **Voltaire** [or Francois-Marie **Arouet**]

[10] In 1764, Voltaire argued that the Judeo-Christian conception of God was false, but that there was an impersonal deity in a "Philosophical" work of this type; one year later, Voltaire released an edition of that book that was meant "for the Pocket."

ANSWER: **Dictionary** [or **Dictionnaire**]

[10] Voltaire's Dictionary thus espoused this viewpoint that there is a God who does not intervene in the universe. Thomas Jefferson also espoused this view.

ANSWER: **deism** [accept **deist** theology]

<IJ, Thought>