

Bulldog High School Academic Tournament 2018 (XXVII): After such knowledge, what forgiveness?

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Packet 5 Tossups

1. **Over Thanksgiving dinner, this novel’s protagonist attacks the idea of a God who would include “phlegm and tooth decay” in his Creation. In this novel, a businessman disguises his one-man company by adding an ampersand to its name. In this novel, a Henry Fonda look-alike jumps out of windows to avoid talking to other officers. “Everybody has a share” in a scheme in this novel that buys (*) eggs in Malta for 7 cents and sells them in mess halls for 5. Its protagonist wants to be discharged for insanity, but has to keep flying missions due to the title paradox. Milo Minderbinder, Major Major, and Yossarian star in—for 10 points—what satirical war novel by Joseph Heller?**

ANSWER: Catch-22 <MK>

2. *Description acceptable.* **A D-minor piece in this genre uses a “circling” right-hand figure and a “thumping” left-hand figure to depict both the title object and the title girl’s heart. Another piece in this genre uses different registers to represent three characters and uses pounding octave Gs in the right hand to depict a galloping horse. A set of these works begins “A stranger I arrived...” or “Fremd bin ich eingezogen” [fremt BIN eekh eyen-gu-TZOH-gen] in the piece (*) “Gute Nacht” [GOO-tuh nakht]. “Gretchen am Spinnrade [SHPIN-rah-duh]” and “Erlkönig” [EHRL-kur-nikh] are among Franz Schubert’s over 600 works in this genre, including *Winterreise*, a “cycle” of them. A piano typically accompanied—for 10 points—what basic genre of solo vocal music?**

ANSWER: art songs [or Lieder; or Gesänge; accept song cycles or Liederkreise] <JR>

3. **Perceiving *this* phenomenon has surprisingly been shown to activate the primary *visual* cortex in congenitally blind patients. A controversial evolutionary account of human use of this phenomenon was published in 1994 by Steven Pinker. Processing of this phenomenon is usually severely impaired in patients who’ve had their left hemisphere removed. A feral child named Genie never developed the ability to (*) use it, suggesting a “critical window” for its acquisition. This phenomenon determines thought patterns, according to the Sapir–Whorf hypothesis. Damage to Wernicke’s and Broca’s areas can cause “aphasia,” an inability to use—for 10 points—what kind of communication?**

ANSWER: language [accept words or speech; accept verbal communication; accept *The Language Instinct*] <HK>

4. **It’s not London, but this city is home to a cucumber-shaped skyscraper with LEDs on its windows, designed by Jean Nouvel. A Diagonal Avenue cuts through this city’s “extension,” built next to its Gothic Quarter. This city is home to the stadium Camp Nou and the Palace of the Generalitat. A church in this city has “Nativity” and “Passion” façades that were completed in (*) 1930 and 1976. For this city’s 1929 International Exposition, Ludwig Mies van der Rohe designed a namesake pavilion. Markets line its pedestrian street Las Ramblas. This city is home to Lionel Messi’s soccer team. Antonio Gaudí’s Sagrada Familia is being built in—for 10 points—what capital of Catalonia?**

ANSWER: Barcelona [accept Barcelona Pavilion] (The skyscraper is the Torre Glòries/Agbar.) <MK>

5. Abas is rewarded with one of these objects after the death of his grandfather Danaus [dah-NAY-uss]. A battle against Cycnus, son of Ares, is the subject of a poem titled for one of these objects of *Heracles*. Book 18 of the *Iliad* describes how a newly-made one of these objects includes an image juxtaposing a peaceful city with a warring city. The head of a Gorgon is (*) affixed to the front of one of these objects, just moments after its shiny reflection is used by Perseus in his battle against Medusa. The aegis [EE-jiss] of Athena is an example of—for 10 points—what type of defensive object often used in battle alongside a sword?

ANSWER: shield [or aspis; accept Shield of Heracles or Aspis Herakleous; accept aegis before “aegis” is read] <SPQR>

6. During this century, an 8.0 magnitude earthquake struck Crete, causing a Mediterranean-wide tsunami. Usurpers in this century included Eugenius and Magnentius, and authors during it included Victorinus and Prudentius. Licinius fomented a civil war in this century, in which Visigoths appeared on the Danube and were allowed into the Roman Empire, leading to the Battle of (*) Adrianople. At the beginning of this century, Armenia became the first country to adopt Christianity as a state religion. Constantine the Great called the first Council of Nicaea in this century, in which Diocletian died. For 10 points each, name this century *before* the one in which the Western Roman Empire fell.

ANSWER: 4th century A.D. [or 300s A.D.] <SPQR>

7. Hamilton’s equations are equivalent to this law but contain only first-order derivatives. The Euler–Lagrange equations are second-order, like this law, and can be used to derive it from the principle of least action. For a rocket, this law contains a term equal to the relative exhaust velocity times the time derivative of the (*) mass. Integrating this law over time gives the impulse delivered by a force, since the right-hand side contains the time derivative of momentum. The English inventor of calculus discovered—for 10 points—what law, which states that the force on a body equals its mass times its acceleration?

ANSWER: Newton’s second law of motion [accept Euler–Lagrange equations before “Euler–Lagrange equations”; prompt on Newton’s law(s) or Newton’s law(s) of motion] <SE>

8. In a midtempo “3-4” aria that heavily features two flutes in thirds, this character describes a “whirlwind”-like dance accompanied by the “tinkling rods of the sistra.” This character’s most famous aria is based on a midtempo chromatic scale down from D. This mezzo-soprano role, whose realism caused a scandal at the opera’s 1875 première, reads (*) tarot cards with Frasquita and Mercédès and first appears during a break at a cigarette factory. She sings a *seguidilla* [seh-gee-DEE-yah] after calling love a “rebellious bird” in her “Habañera” [hah-bah-NYEH-rah] and seduces Escamillo [eh-skah-MEE-yoh], a toreador, before being stabbed by Don José. For 10 points, name this title gypsy of an opera by Georges Bizet [bee-ZAY].

ANSWER: Carmen <JR>

9. This poet wrote about an object that “invades the kitchen” and “takes its ease on countertops” in a poem describing the “juice” of “midday, summer, light” running through the streets. The speaker asks “Who are you, who are you” at the end of this man’s poem “Thinking, Tangling Shadows.” This man wrote lines like “I do not love you (*) except because I love you” and “Love is so short, forgetting is so long.” He repeats that it is “the hour of departure” in a poem that declares “in you, everything sank!”, which follows his poem “Tonight I can write the saddest lines.” For 10 points, name this Chilean poet of *Elemental Odes* and *Twenty Love Poems and a Song of Despair*.

ANSWER: Pablo Neruda [or Ricardo Eliécer Neftalí Reyes Basoalto] <MK>

10. **People trying to evade this policy were surveilled with wiretaps that were ruled constitutional in the case of *Olmstead v. US*. After overseeing a partial implementation of this policy in Maine, Neal Dow ran for president on a party platform advocating it. A group of agents tasked with enforcing this policy led by Eliot Ness were known as the (*) Untouchables.** This policy, which was enacted by the Volstead Act, was evaded by bootleggers and people who congregated at speakeasies. For 10 points, name this policy established by the Eighteenth Amendment and repealed by the Twenty-First, in which the sale of alcohol was outlawed.

ANSWER: **Prohibition** [accept answers describing a **ban on alcohol** before “alcohol”; prompt on **temperance**; prompt on **Eighteenth Amendment**] <SE>

11. **This is the number of nitrogens in an imidazole ring. Both the dehydrohalogenation of alkyl halides and the Wittig reaction produce compounds with a carbon-carbon bond of *this* order. Compounds designated *ortho* have substitutions at the one position and this numbered position. This is the ratio of hydrogens to carbons in (*) alkenes.** Bonds of this order arise from s-p-2 hybridization. This is the number of carbons in acetic acid. Bonds of this order include one pi bond. Alkenes must contain a bond of this order. For 10 points, give the number of atoms in each molecule of hydrogen or oxygen gas.

ANSWER: **two** [accept word forms; accept **diatomic**; accept **double** bond] <AF>

12. **At Mount Horeb, this man does not hear God in an earthquake, wind, or fire, but only in a “still, small voice.” This Tishbite later performed a miracle by giving endless flour and oil to a widow in Zarephath. This man defeated the servants of Baal by calling down fire from heaven. Jesus compares John the Baptist to this prophet, who appeared with Moses and Jesus on the Mount of (*) Transfiguration.** In First Kings, this prophet clashes with King Ahab and Queen Jezebel. On Passover, Jews leave out a “cup” for this prophet, since he will return with the Messiah. For 10 points, name this Biblical prophet, who was succeeded by Elisha after God whisked him away in a chariot of fire.

ANSWER: **Elijah** [or **Elias**; or **Eliyahu**; or **Ilyas**; do not accept or prompt on “Elisha”] <MK>

13. **This character can use a warm doublet or food made with Spicy Peppers to survive freezing areas. In that game, this character gains access to the map by climbing Sheikah Towers and can paraglide off tall mountains. Recurring items used by this character include the pegasus boots, the (*) hookshot, and empty bottles used to collect fairies.** To increase this character’s health, the player must collect pieces of heart. This character finally gained the ability to jump in a 2017 open-world game for the Nintendo Switch. This character’s main weapon is the Master Sword, and his primary antagonist is Ganondorf. For 10 points, name this protagonist of *The Legend of Zelda* franchise.

ANSWER: **Link** <JR/BY>

14. **This letter denotes the group of *Proteobacteria* that includes the ancestor of all mitochondria. This letter denotes the carbon in an amino acid that’s attached to its amino and carboxyl groups. Adrenergic receptors denoted by this letter contract smooth muscle and inhibit insulin release. A structure denoted by this letter appears in the upper right of a Ramachandran plot. Pancreatic cells denoted by this letter release (*) proglucagon.** This letter designates the first carbon next to a functional group. This letter denotes the most common secondary protein structure, which has 3.6 amino acids per turn. For 10 points, name this Greek letter that names helices that are contrasted with beta sheets.

ANSWER: **alpha** [accept **alpha** helix/ces, or **alpha**-adrenergic receptors] <AF>

15. In a story that reverses the plot of this story, Mrs. Guy buys a memento after Charlotte Prime's cousin Arthur sells it. In this story, the protagonist's husband gives up a large sum he was going to spend on a gun so that protagonist can buy a dress for the Ministry of Education ball. Henry James's "Paste" reverses the plot of this story. When its protagonist (*) loses the title object, she tells Madame Forestier [faw-"rest"-YAY] that it is being repaired so that she has time to buy a replacement. Mathilde Loisel [mah-TEELD lwah-ZELL] spends ten years paying off her debts before learning that the title accessory was a fake in—for 10 points—what story by Guy de Maupassant [GHEE duh moh-pa-SAW]?

ANSWER: "The (Diamond) Necklace" [or "La Parure"] <CK>

16. This group was established by the Committee of Both Kingdoms, and they called their enemy a "man of blood." This group argued the merits of the Heads of Proposals and the Agreement of the People. This group's members, who fought for the "Good Old Cause," included "Grandees" who opposed its (*) Levellers. It held the Putney Debates. At Wexford and Drogheda, this group massacred hundreds of Irish people. This group, which fought on behalf of the Rump Parliament, won at Naseby and opposed Charles I. For 10 points, name this Puritan army that fought for Oliver Cromwell in the English Civil War.

ANSWER: New Model Army [prompt on partial answer] <SPQR>

17. One of these objects was studied using an aerogel in the *Stardust* project, which found evidence of the amino acid glycine. A probe used to study these objects was redeployed in 2007 to study extrasolar planets. One of them named for Wilhelm Tempel had its interior composition studied by the probe (*) *Deep Impact*. The *Rosetta* probe's lander *Philae* was the first to land on one of them. Long-period ones originate in the Oort cloud while short-period ones come from the Kuiper Belt. A frozen nucleus and a "tail" make up—for 10 points—what Solar System objects, one of which is named for Edmond Halley?

ANSWER: comets <HK>

18. In one of this author's plays, two men discuss a group of cricket players called the "First Eleven," are asked to make fancy dishes like an "Ormitha Macarounda," and keep trying to flush a toilet while waiting for their boss, who never comes. In another of his plays, the protagonist beats a toy drum, loses his glasses during a game of blind man's bluff, and tries to rape (*) Lulu. He wrote a play in which the hitmen Ben and Gus receive instructions by the title device, as well as a "comedy of menace" in which the boarding house owner Meg puts on the title celebration for Stanley Webber. For 10 points, what English playwright wrote *The Dumb Waiter* and *The Birthday Party*?

ANSWER: Harold Pinter <MK>

19. This ruler's grandfather created a syncretic religion that maxed out at around 20 believers. A civil war over the succession was fought by this man's four sons after he fell ill in 1657. This man's successor ended his policy of religious toleration by re-imposing the *jizya* tax and executed the (*) Sikh Guru Tegh Bahadur. A building sponsored by this man sports four minarets, a reflecting pool, and an onion-esque dome. This man commissioned the Red Fort and the Peacock Throne. Aurangzeb succeeded this man, who sponsored a massive white mausoleum in Agra for his wife, Mumtaz. For 10 points, name this Mughal Emperor who commissioned the Taj Mahal.

ANSWER: Shah Jahan [or Shahab-ud-din Muhammad Khurram; do not accept or prompt on "Jahangir"] <HK>

20. This artist depicted a man blithely taking his clothes off beside a chair in *And the house is on fire*. He painted his maid and likely lover leaning on a burial mound in his *Leocadia*, and two hovering people point at a large, blocky mountain in his *Asmodea*; he made both of those murals for a “Villa of the Deaf.” Édouard Manet was inspired by two paintings this man made of the same woman (*) reclining, once dressed and once nude. He made an etching of bats and owls crowding a man slumped face-down on his desk. *The Sleep of Reason Produces Monsters* is by—for 10 points—what Spanish artist of *Los Caprichos*, whose *Black Paintings* include *Saturn Devouring His Son*?

ANSWER: Francisco **Goya** [or Francisco José de **Goya** y Lucientes] <AF>

Tiebreaker

21. This “angel of hatred,” whose motto is “*Mobilis in mobili*,” donates treasure to help the Greek rebels of the Cretan Revolt. After using electricity to fight off some cannibals, this man locks in and drugs the narrator and his Canadian friend. This character tells Cyrus Smith about losing everything in the Sepoy Mutiny and changing his name from “Prince Dakkar” in *The (*) Mysterious Island*. This man’s vessel is attacked by a bunch of giant squid before being drawn into the maelstrom as Ned Land and Pierre Arronax escape. His vessel is first thought to be a giant narwhal. Jules Verne created—for 10 points—what enigmatic captain of *The Nautilus*?

ANSWER: Captain **Nemo** [accept Prince **Dakkar** until that’s mentioned] <MK>

Bonuses

1. Paul Cézanne inspired many later artists by painting the houses of this village as little cubes. For 10 points each:
[10] Name this tiny village in the south of France. Georges Braque developed Cubism in this town by painting its *Houses* in imitation of Cézanne.

ANSWER: **l'Estaque** [accept **Houses at l'Estaque** or **Maisons à l'Estaque**]

[10] Braque spent a few years making paintings virtually indistinguishable from those of this Catalan pioneer of Cubism, who had painted *Les Femmes d'Alger* the year before. He also painted *Guernica*.

ANSWER: Pablo **Picasso** [or Pablo Diego José Francisco de Paula Juan Nepomuceno María de los Remedios Cipriano de la Santísima Trinidad Ruiz y **Picasso**]

[10] Braque was an early developer of this way of making artworks. A work in this medium by Richard Hamilton gave its name to Pop Art, since it depicts a bodybuilder holding an oversized lollipop branded "POP."

ANSWER: **collage** <JR>

2. Saint Frumentius introduced Christianity to this kingdom, baptising its king Ezana. For 10 points each:

[10] Name this kingdom whose rulers supposedly included the Queen of Sheba. Much of its history is recorded in the language Ge'ez.

ANSWER: Kingdom of **Aksum** [accept **Aksumite Empire** or **Mangista Aksum**]

[10] Aksum was mostly located in this modern day country, whose capital is Addis Ababa.

ANSWER: Federal Democratic Republic of **Ethiopia**

[10] Ethiopian Orthodox Christians claim that Menelik I brought *this* object to Ethiopia, where it has stayed. It was kept in the inner sanctum of Solomon's Temple and was made to house the two tablets of the Ten Commandments.

ANSWER: the **Ark of the Covenant** [or the **Ark of the Testimony**; prompt on partial answer] <MK>

3. This British author wrote romances under the pseudonym Mary Westmacott. For 10 points each:

[10] Name this best-selling novelist of all time, whose books include *And Then There Were None*. Her characters include Roger Ackroyd.

ANSWER: Agatha (Mary Clarissa) **Christie**, (Lady Mallowan)

[10] Christie is best-known for writing in this broad genre that usually features detectives. Raymond Chandler wrote about this genre in his essay *The Simple Art of Murder*.

ANSWER: **crime** fiction [accept murder **mystery**]

[10] Christie's murder mysteries include this play, in which the murder investigator Sergeant Trotter arrives on skis. Its characters include an army deserter named Christopher Robin who's posing as "Christopher Wren."

ANSWER: *The **Mousetrap*** <MK>

4. By the Pythagorean identity, sine-squared plus cosine-squared equals this number. For 10 points each:

[10] Give this number that's the radius of the unit circle.

ANSWER: **one**

[10] On the unit circle, the sine and cosine of 45 degrees, or pi-over-4 radians, are both given by this fraction.

ANSWER: $\frac{\sqrt{2}}{2}$ [or the square **root** of **2** over **2**; or **one over** the square **root** of **2**]

[10] The unit circle is often considered in the complex plane, where Euler's formulas give nice definitions for sine and cosine. What two functions appear in the numerators of those formulas? The denominators are 2 and 2i.

ANSWER: e^{ix} AND e^{-ix} [or "**e to the i** times **x**" AND: "**e to the negative i** times **x**" or "**e to the minus i** times **x**"; prompt on complex **exponential**; do not accept or prompt on "e to the x"] <JR>

5. For 10 points each—answer the following about the legislative achievements of Robert Peel:

[10] Peel laid the foundations of the modern British Conservative Party in *this* document, which warns against legislation that promotes change as creating “a perpetual vortex of agitation.”

ANSWER: **Tamworth** Manifesto

[10] Peel had *these* tariffs, which raised food prices, repealed. These laws made it ruinously expensive to import grain, even in times of shortage.

ANSWER: **Corn** Laws

[10] Peel had the Corn Laws repealed to alleviate this disaster, in which a blight struck the staple crop of Ireland, causing widespread starvation.

ANSWER: Irish **Potato Famine** [or **Great Famine** or **Great Hunger**; prompt on partial answer] <AF>

6. Langston Hughes translated a collection named for these people, which opens with a “Ballad of the Moon, Moon.” For 10 points each:

[10] Identify these namesake people of a 1928 collection that includes the poem “Green how I want you green.”

ANSWER: **gypsies** [or **gitanos**; accept **Gypsy Ballads** or **Romancero Gitano**]

[10] *Gypsy Ballads* were written by this poet of “Lament for the Death of a Bullfighter,” who also wrote the play *Blood Wedding*.

ANSWER: Federico García **Lorca** [or Federico del Sagrado Corazón de Jesús García **Lorca**]

[10] Lorca, who was gay, included a long series of homophobic slurs in his “Ode to Walt Whitman,” which featured in a collection named for this city. Whitman wrote a poem about “crossing” a ferry in this city.

ANSWER: **New York** City [or **NYC**; or **New York**, New York; accept **Brooklyn**; accept **Poet in New York** or **Poeta en Nueva York**] <JR>

7. This process can occur following acquisition of the enzyme New Delhi metallo-beta-lactamase-1. For 10 points each:

[10] Name this process in which bacteria acquire genes that allow them to survive antibiotics. Many instances of this process are occurring due to the practice of feeding livestock antibiotics when they are healthy.

ANSWER: antibiotic **resistance** [accept antimicrobial **resistance**]

[10] A strain of *this* bacterium resistant to methicillin is responsible for the most deaths of any resistant pathogen, and is classified into hospital, livestock, and community acquired types.

ANSWER: *Staphylococcus* **aureus** [accept **MRSA**; prompt on “*staphylococcus*”]

[10] *S. aureus* can become resistant through the acquisition of the *SCCmec* example of *these* genetic elements, which are the most common carriers of resistance genes. They are composed of a gene and a recombination site.

ANSWER: gene **cassette** [accept *SCCmec* **cassette**] <AF>

8. This actor’s suicide by hanging in 2014 was likely due to anxiety over his incipient dementia. For 10 points each:

[10] Name this American actor and comedian, known for starring in such films as *Dead Poets Society* and *Good Will Hunting*. He voiced the Genie in *Aladdin* and played Teddy Roosevelt in *Night at the Museum*.

ANSWER: Robin **Williams**

[10] Williams also starred in this 1995 film, in which he asks “what year is it” when the kids Judy and Peter help him escape after 26 years in the jungle.

ANSWER: **Jumanji**

[10] This less popular “spiritual sequel” to *Jumanji* was released in 2005. It takes place in space.

ANSWER: **Zathura**: *A Space Adventure* <JW>

9. For 10 points each—answer the following about Islamic prayer, or *salat*:

[10] *Salat* is one of the five pillars of Islam, along with fasting during *this* month of the Islamic calendar.

ANSWER: **Ramadan**

[10] The call to prayer for *salat* always begins with the *takbir*, which consists of *these* words.

ANSWER: ***allahu akbar*** [or **God is great** or **God is the greatest**]

[10] How many times is the *takbir* repeated at the beginning of the call to prayer in most major branches of Islam?

ANSWER: **four** <JW>

10. This theory can be used to derive the pressure exerted by a gas based on its collisions with its container. For 10 points each:

[10] Name this theory that derives macroscopic properties of a gas from microscopic properties like an individual molecule's momentum. Its assumptions include a lack of intermolecular forces and small, uniform molecules.

ANSWER: **kinetic** theory of gases [or **kinetic** molecular theory]

[10] Another kinetic theory, the Michaelis–Menten theory, relies on *this* assumption about the concentrations of substrates. This phrase describes non-equilibria in which state variables are not changing.

ANSWER: **steady state** approximation

[10] Yet another kinetic effect concerns the effect of different examples of *these* entities on reaction rates. J.J. Thompson discovered these species of an element with different numbers of neutrons.

ANSWER: **isotopes** [accept kinetic **isotope** effect] <AF>

11. The literal location referred to by this phrase was located on either the fourth or the ninth floor of Chicago's Blackstone Hotel. For 10 points each:

[10] Give this metaphorical term for un-democratic, corrupt political dealings. It was first used to describe the selection of the Republican candidate in the 1920 presidential election.

ANSWER: **smoke-filled room** [prompt on partial answer]

[10] The “smoke-filled room” nominated this senator from Ohio to succeed Woodrow Wilson. His administration took bribes in the Teapot Dome scandal, and after his death he was succeeded by Calvin Coolidge.

ANSWER: Warren G. **Harding** [or Warren Gamaliel **Harding**]

[10] Harding's Cabinet included Interior Secretary Albert Fall and Harry M. Daugherty, who held this position. This position was previously held by A. Mitchell Palmer, who conducted a series of namesake “Raids” to arrest leftists.

ANSWER: **Attorney General** <SE>

12. This actor's character gives a Ferris wheel speech about how insignificant other individual humans are in the movie *The Third Man*. For 10 points each:

[10] Name this man who starred as a comically fat Falstaff in his movie *Chimes at Midnight*. He also narrated and performed magic tricks in his movie about hoax biographies and art forgeries, *F for Fake*.

ANSWER: (George) Orson **Welles**

[10] Welles is best known for directing and starring in this 1941 movie, in which the title newspaper magnate dies after saying the mysterious word “Rosebud.”

ANSWER: ***Citizen Kane***

[10] In the movie, Charles Foster Kane's enormous estate is given *this* name, which references a poem by Samuel Taylor Coleridge about a “stately-pleasure dome.”

ANSWER: **Xanadu** (The poem is “Kubla Khan.”) <JR>

13. For 10 points each—answer the following about authors of the Roman Golden Age.

[10] The Golden Age is considered to have begun with the first speech of this man, who delivered orations against Verres, Catiline, and Mark Antony. He also wrote *On Duties* and the *Tusculan Disputations*.

ANSWER: Marcus Tullius **Cicero** [accept **Tully**]

[10] This Golden Age author coined phrases like “nunc est bibendum” in his *Odes* and *Ars Poetica*. Millenia before Drake, this man warned you that you only live once, saying “seize the day.”

ANSWER: **Horace** [accept Quintus **Horatius** Flaccus]

[10] Horace attacked others in his *Satires* and in works in *this* short genre, which he was the first to use in Latin. In an ode, this section follows the strophe and antistrophe.

ANSWER: **epodes** <SPQR>

14. The debate over whether this substance was dragged along by moving objects led to competing theories by Augustin-Jean Fresnel and George Stokes. For 10 points each:

[10] Name this hypothetical medium through which light was believed to travel. Its existence was disproved by an 1887 experiment that did not observe fringe shifts in a rotating interferometer.

ANSWER: luminiferous **ether** (That experiment was the Michelson–Morley experiment.)

[10] In 1892 this Dutch physicist proposed a more plausible but still incorrect ether theory, from which he derived the existence of length contraction independently of George FitzGerald.

ANSWER: Hendrik **Lorentz** [or Hendrik Antoon **Lorentz**]

[10] The behavior of objects near the speed of light was much better explained in the 1905 papers in which Albert Einstein laid out the “special” form of this branch of physics.

ANSWER: **relativity** [accept special **relativity**] <SE>

15. Wilhelm Keitel served as the first and only military governor of this region. For 10 points each:

[10] Name this majority German-speaking territory that was handed over in the Munich Pact, a cession that Neville Chamberlain claimed had brought “peace for our time.”

ANSWER: **Sudetenland** [prompt on Czechoslovakia]

[10] The occupation of the Sudetenland followed immediately after Germany’s union with *this* southern neighbor in a process called the *Anschluss*. This German-speaking country had earlier formed a dual monarchy with Hungary.

ANSWER: **Austria** [or **Österreich**; accept **Austria-Hungary**]

[10] This chancellor of Austria suppressed the Nazi party during his time in office, moving towards fascism with the First of May Constitution. He was assassinated by the Nazis and succeeded by Kurt Schuschnigg.

ANSWER: Engelbert **Dollfuss** <SPQR>

16. This god is often depicted as a spider as he performs tasks such as capturing hornets in a calabash and tying a python to a tree branch. For 10 points each:

[10] Name this mythical trickster whose folklore originated in West African countries such as Ghana.

ANSWER: **Anansi** [or Kwaku **Ananse**]

[10] Anansi’s father is a god of this domain named Nyame [N’YAH-may]. The Proto-Indo-European god of this domain, Dyeus Phter [DAY-ooss PAH-tuhrr], was the origin of the *devas* as well as the gods Zeus, Jupiter, and Tyr.

ANSWER: the **sky** [or the **heavens**; or obvious equivalents; do not accept “wind”; do not accept “air”]

[10] Anansi is among the origins of a traditional American trickster figure from the South who takes this animal form and is called “Br’er” [rhymes with “bare”], or “brother.”

ANSWER: **rabbit** [or **bunny**; or **leporid** or **Leporidae**; accept **Br’er Rabbit**; accept ***O. cuniculus*** or ***Oryctolagus cuniculus***] <MK>

17. In January 2017, a federal court declared North Carolina's congressional map a "partisan" example of this practice and had it struck down. For 10 points each:

[10] Name this practice in which district lines are redrawn to benefit one party over the other. California recently revised their redistricting procedure to prevent examples of this process.

ANSWER: partisan **gerrymandering** [accept word forms]

[10] Another current gerrymandering case, *Gill v. Whitford*, originates from this state. In 2013, this state elected the first openly gay senator in US history.

ANSWER: **Wisconsin**

[10] One element of *Gill* lacking in previous gerrymandering cases is the use of *this* metric, which quantifies the number of "wasted votes" for each party. This metric was developed by Stephanopoulos and McGhee at UChicago.

ANSWER: **efficiency gap** [do **not** accept or prompt on partial answers] <AF>

18. This system supposedly arose in opposition to the idea that the "noble" and "strong" are the same as the good. For 10 points each:

[10] Name this ethical system that purportedly values traits like kindness and humility. At the same time, it is supposedly fueled by a deep resentment of its opposite's superior strength.

ANSWER: **slave morality** [prompt on partial answer; accept **Sklavenmoral**]

[10] Friedrich Nietzsche described slave morality in *Beyond Good and Evil*, which is full of *these* short philosophical statements. These statements comprise the majority of Nietzsche's *Human, All Too Human*.

ANSWER: **aphorisms** [or **Aphorismen**; do **not** accept or prompt on similar words like "maxims"]

[10] *Human, All Too Human* describes a "free spirit" that sounds a lot like *this* kind of superior person, which he described in *Thus Spake Zarathustra*. This kind of man, often known by a German term, can create his own values.

ANSWER: **Übermensch** [accept **Overman**; prompt on **Superman**] <JR>

19. This dance usually includes a heavy third beat accent and disorienting use of timing that can sound like an extra beat. For 10 points each:

[10] Name this dance in 3-4. It comes from the namesake country of the polonaise.

ANSWER: **mazurkas**

[10] This Polish-born composer wrote dozens of mazurkas and a number of concert polonaises. He also wrote the "Black Key" and "Revolutionary" études.

ANSWER: Frédéric (François) **Chopin** [or Fryderyk Francizsek **Chopin**]

[10] The mazurka's "extra beat" can be considered an extreme case of *this* expressive use of timing in music. This use of rhythmic freedom has an Italian name meaning "stolen time."

ANSWER: *tempo rubato* <JW>

20. Jerry impales himself on a knife at the end of Edward Albee's first play, which is titled *The [this kind of place] Story*. For 10 points each:

[10] Name this kind of location where *Slaughterhouse-Five* protagonist Billy Pilgrim is kept with the pornographic actress Montana Wildhack on the planet Tralfamadore.

ANSWER: **zoos** [accept *The Zoo Story*]

[10] "Phony"-hater Holden Caulfield takes his sister Phoebe to the zoo in this novel by J.D. Salinger.

ANSWER: *The Catcher in the Rye*

[10] Yank visits a zoo and sympathizes with the title *Hairy Ape* in a play by this American author, whose other expressionist plays include *The Emperor Jones* and *The Great God Brown*.

ANSWER: Eugene (Gladstone) **O'Neill** <CK>

Tiebreaker

21. This kind of design is often used in agricultural experiments, where one of these groups just corresponds to a plot of land. For 10 points each:

[10] Name these groups of experimental subjects, which are created to reduce noise by dividing the sample into more homogeneous subsets. For experiments on people, these subsets are often created by gender.

ANSWER: **blocks** [accept word forms]

[10] Within a block, a treatment is usually assigned in this fashion, in which every subject has an equal likelihood of receiving a given treatment. If there are two treatments, this kind of assignment can be produced using a coin flip.

ANSWER: **randomized** [accept word forms like **randomly**; accept **randomized block** design]

[10] While blocking can remove nuisance factors, it can't remove *these* variables. Similarly to lurking variables, you can't tell the effect of these variables on the response variable apart from the effect of the independent variable.

ANSWER: **confounding** variables [or **confounding** factors] <JR>