Ladue Invitational Spring Tournament VI

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ROUND 2 - TOSSUPS

1. In a work by this author, a character accidentally kills the baby she had kidnapped when a carriage turns over. That work includes a scene in which Gino attacks Philip because Philip had come to Italy with Harriet. This author of Where Angels Fear to Tread also wrote a work which sees an engagement with Cecil Vyse broken off so George Emerson can marry Lucy Honeychurch. In another of his novels set in (*) Chandrapore, Ronny Heaslop decides not to marry Adela Quested, who accuses another character of assaulting her in the Marabar caves. For ten points, name this author of A Room with a View, who described the trial of Dr. Aziz in A Passage to India.

ANSWER: Edward Morgan Forster

<MS>

2. This politician volunteered for his predecessor in his highest office as a student at Miami College. This man stated that he had gotten involved in politics due to Ayn Rand, but later repudiated her for her anti-religious stances. In his most recent primary, this man faced a primary challenge from Paul Nehlen, who was endorsed by (*) Sarah Palin. Before this politician was elected into his highest office, he served on the House Ways and Means Committee. This politician was named as the running mate of Mitt Romney during the 2012 Presidential Election. For ten points, name this Wisconsin congressman, the current Speaker of the House.

ANSWER: Paul Davis Ryan

<AN>

3. When this man was captured by pirates, he demanded that his ransom be raised, and later hunted down and crucified those pirates. This man expanded the size of the senate to over 900 during his rule, leading to an event that Calpurnia tried to prevent. This man detailed his victory over Vercingetorix at the Battle of Alesia in his Commentaries on the (*) Gallic Wars. This leader committed treason by crossing the Rubicon, and he eventually hunted down his rival Pompey and defeated him at the Battle of Pharsalus. For ten points, name this Roman dictator and member of the First Triumvirate who was murdered by Brutus on the Ides of March.

ANSWER: Gaius Julius Caesar

 $\langle ES \rangle$

4. When vertical fractures occur in the columnar jointed form of this rock, several hexagonal shapes form. When this rock is low in sodium and calcium, and high in silica and iron, it is classified as tholeittic. Major minerals that make up this rock include pyroxene, plagioclase, and olivine, making it a mafic rock. An intrusive, chemical equivalent to this rock known as (*) Gabbro is created when it forms beneath the earth's surface and becomes holocrystalline. This rock is formed by the rapid cooling of lava, and belongs to the same class as granite. For ten points name this igneous rock that makes up most of the oceanic crust.

ANSWER: basalt

<NG+RP>

5. A function named after Dirichlet is equal to 0 when its input is not in this set. Gauss' Lemma says that if a polynomial with integer coefficients is irreducible over the integers, then it is also irreducible over this field. Another theorem says that all of the roots of a polynomial which are in this set can be found by using its leading and constant coefficients. After proving that a number was not in this set, Hippasus was supposedly drowned. Lambert proved that (*) pi was not in this set, which all terminating or repeating decimals belong to, but numbers like e or the square root of 2 do not. For ten points, name this set, represented by the letter Q, whose elements can be represented as a fraction p over q, for integers p and q.

ANSWER: rational [prompt on "Q"]

<MS>

6. A blockbuster trade between 5 teams that sent Antoine Walker to this team also included point guard Jason Williams, who helped this team win the NBA Finals in 2006. This team used their tenth pick of the 2015 NBA Draft on a small forward who had just helped Duke win the NCAA Championship, Justise Winslow. A star player on this team recently signed with the Chicago (*) Bulls, leaving the starting guard position open for Goran Dragic and Tyler Johnson. Under head coach Erik Spoelstra, this team won championships in 2012 and 2013, but in 2015 their best player returned to the Cleveland Cavaliers. For ten points, name this Eastern Conference NBA team that once featured a big three of Chris Bosh, Dwyane Wade, and LeBron James.

ANSWER: Miami Heat [accept either underlined answer]

<GM+RP>

- 7. After one side in this war captured Bordeaux, General John Talbot was killed with an axe at its Battle of Castillon. Forces lead by Hugues Quieret and Nicolas Behuchet were demolished in an early naval battle of this war, whose history was chronicled by Jean Froissart. One king in this war was ransomed back to his country after being captured at (*) Poitiers, and that ransoming spurred the Jacquerie rebellion. A battle fought on St. Crispin's Day in this war saw the heavy use of longbows on a muddy battlefield, and its Siege of Orléans was broken by Joan of Arc. Henry V won the Battle of Agincourt in, for ten points, what war between England and France that, despite its name, actually lasted 116 years? ANSWER: Hundred Years War <GM+RP>
- 8. Although not Wisconsin, the Aldo Leopold Wilderness Area is found in this state's Black Range. This state's Zuni Mountains contain El Morro National Monument. The third largest cave chamber in North America is located in this state's Carlsbad Caverns National Park. The Zia red sun flag flies in this state's capital, which is the (*) oldest in the US. The McDonald Ranch House outside Alamogordo was acquired by the US Army for the Trinity nuclear tests in what would become this state's White Sands Missile Range. For ten points, name this southwestern state home to the cities of Santa Fe and Albuquerque.

ANSWER: New Mexico

<HR>

9. Franz Schubert composed three pieces in this genre for piano four-hands, and works in this genre commonly include dogfight and trio sections. A composer notable for this genre of pieces wrote such examples as *Manhattan Beach* and *The Thunderer*, and these pieces are usually in 6/8 or (*) 2/4 time. Staples of this genre include *Semper Fidelis* and the national one of America, *The Stars and Stripes Forever*. For ten points, name this genre of music characterized by the works of John Philip Sousa, notably played by military bands.

ANSWER: marches [accept military marches]

<JC>

10. In an experiment performed by this man, children were fed words through a radio to simulate the actions of Cyrano de Bergerac. Another experiment involved students asking subway riders for their seats, and this man claimed that a person would be more likely to interact with someone at a location in which they would not normally meet in his concept of the (*) "familiar stranger". Dropped envelopes addressed to "Friends of the Nazi Party" were not sent by subjects of his "Lost Letter" experiment, and in his best known experiment, "teachers" administered punishments to "learners" if they failed to repeat a word. For ten points, name this psychologist who tested obedience to authority in his shock experiment.

ANSWER: Stanley Milgram

 $\langle RP \rangle$

HALFTIME

11. The German writer Goethe reunites with his lover Charlotte Kestner in this author's book *Lotte in Weimar*. In one of his novels, Thomas and Gerda give birth to Hanno, who eventually dies of typhoid, ending the family dynasty. That work, subtitled "The Decline of a Family", is set in (*) Lubeck. The protagonist of a novella by this author constantly smells a disinfectant in the air, but is later informed that it is a warning for an incoming sirocco. That character, Gustav von Aschenbach, becomes captivated by the beautiful Polish boy Tadzio, and eventually dies on the beach after eating over-ripe strawberries. For ten points, identify this German, the author of *Buddenbrooks* and *Death in Venice*.

ANSWER: Thomas Mann

 $\langle RP \rangle$

12. This man proposed a model which helped to explain the Dulong-Petit law at high energies, and he said quantum entanglement was "spooky action at a distance". This man's paper "On the Electrodynamics of Moving Bodies" was part of his groundbreaking (*) *Annus Mirabilis* papers, which he published while working at a patent office in Bern. This scientist proposed that an object's length would appear to shorten if it is travelling near the speed of light, and won the Nobel Prize for his work on the photoelectric effect. For ten points, name this 20th century physicist who famously stated that energy is equal to mass times the speed of light squared.

ANSWER: Albert Einstein

<AG>

13. When this god was challenged to drink a cup in three draughts, he was unable to do so because he found out that he was drinking the sea itself. After one man breaks the bone of one of this god's goats, this god takes that man as his servant. After this deity received a glove from the giantess (*) Grid, he used it to throw a piece of hot iron through a pillar in order to kill Geirrod. Loki had to ask dwarves to make new hair for this man's wife Sif after cutting it off, and those dwarves also made this god's famous iron weapon. For ten points, name this wielder of the hammer Mjollnir, the Norse god of thunder.

ANSWER: Thor

<GM>

14. The lines of two prayers recited during this holiday are arranged according to the aleph-bet, and those prayers are the Ashamnu and Al Chet. The tradition of Kapparot during this holiday involves swinging a chicken over one's head and giving it to the poor, and it is tradition to read the entire Book of (*) Jonah during this holiday. The days leading up to this occasion are known as the Days of Awe, and the Kol Nidre is read on this holiday which takes place on the tenth of Tishrei. For ten points, identify this holiday occurring ten days after Rosh Hashanah, the Jewish "Day of Atonement" during which Jews fast.

ANSWER: Yom Kippur

<MS>

15. A character in this work recalls how the Cotton Carnival Queen was spat at in the face by a drunk man. This play opens with a character complaining that she was hit by a hot, buttered biscuit, and just the night before, that character's husband had broken his ankle while jumping hurdles at his old high school (*) track. Another character from this play is compelled to drink until he hears a "click", and that character attributes his drinking to the world's "mendacity". After the title character becomes pregnant, Gooper and Mae's plans to inherit the money of the dying Big Daddy Pollitt are ruined. For ten points, name this play about a Southern family's gathering at their estate by Tennessee Williams.

ANSWER: Cat on a Hot Tin Roof

<RP>

- 16. The Pidgeon process uses a silicothermic reaction to produce this substance, which is the primary treatment for the pregnancy disorder pre-eclampsia. This substance is used as a reductant to produce pure titanium in the Kroll Process, and a Schlenk equilibrium takes place in certain compounds containing it. Alkyl halides of this element are added to ketones to form carbon-carbon bonds in the (*) Grignard reaction. The oxide of this element is soluble in ammonia and acids despite being considered practically insoluble in water. An intense white light is emitted in the burning of this element, whose sulfate is known as Epsom salt. For ten points, name this alkaline earth metal with symbol Mg. ANSWER: <u>magnesium</u> [accept <u>Mg</u> before mention]
- 17. This man composed *The Life and Morals of Jesus of Nazareth* by cutting and pasting the non-supernatural parts of the New Testament. This man rejected the Monroe-Pinkney Treaty in the events leading up to the Chesapeake-Leopard affair. This president's conflict with the Karamanli dynasty was ended by the Treaty of Tripoli. This man may have fathered a child with his (*) slave Sally Hemings, and he wrote the Virginia and Kentucky Resolutions with James Madison to oppose the Alien and Sedition Acts. For ten points, name this third US president who was the principle author of the Declaration of Independence.

ANSWER: Thomas **Jefferson**

 $\langle AB \rangle$

18. A recreation of this painting shows a dead tree split into six parts and a large fish being pelted with bullet-like projections to the right. That work, which is dominated by several floating bricks, is the "Disintegration" of this painting. A central figure in this painting may have been a self-portrait, and its artist claimed that it was inspired by a piece of Camembert cheese (*) melting in the sun. Golden cliffs in the background of this painting are reflected in the water, and a grotesque, human-like figure lies in the center. This painting shows several ants swarming over a red object to the left, and three melting clocks are draped across its landscape. For ten points, name this surrealist work of Salvador Dali.

ANSWER: The Persistence of Memory

 $\langle RP \rangle$

19. In a story from a larger work by this man, an old couple tires themselves out while chasing a goose to serve to their guests for dinner. This author wrote a collection of poems in which several paired letters are sent between lovers such as Penelope and Odysseus and Briseis and Achilles. He claimed that "As Chiron was to Achilles, so I am to Cupid" in another group of works that is primarily about (*) relationship skills and etiquette. Along with *Heroides* and *Ars Amatoria*, this man included the story of Baucis and Philemon in a narrative poem in fifteen books that chronicles the history of man, from creation to the murder of Julius Caesar, and relates its stories to the theme of transformation. For ten points, name this Roman poet, the author of *Metamorphoses*.

ANSWER: Ovid

 $\langle RP \rangle$

20. It's not the Aorta, but Tetralogy of Fallot is a combination of four congenital defects in this organ. This structure in fetuses contains the foramen ovale, and trabeculae carneae are muscular projections in this organ. Bachmann's bundle and Purkinje fibers help this organ become (*) depolarized, and this structure's bicuspid valve has two cusps while its semilunar valve has three. The venae cavae run through this organ, where arrhythmias occur, and it is divided into atria and ventricles. EKG's monitor the electrical activity of, for ten points, what cardiovascular organ that pumps blood throughout the body?

ANSWER: human heart

 $\langle AG \rangle$

End of regulation, only proceed if tied

21. Mishaps on one voyage led Pedro de los Rios to withdraw support of this man. After that, this man famously drew a line in the sand and asked his men to stay with him, but only thirteen stayed. Those men became known as the Famous Thirteen. This man received help from longtime partner Diego Almagro, but he was killed by Almagro's forces in the Battle of (*) Las Salinas. This victor of the Battle of Cajamarca founded the city of Lima after executing Atahualpa. For ten points, name this Spanish conquistador who conquered the Incan empire.

ANSWER: Francisco Pizarro Gonzalez

<GM>

22. One character in this work tells Aeacus that he should stuff acid up a god's nose, and that god wonders why he doesn't sneeze after being whipped. That character from this play intends to visit dancing virgin girls and have cutlets but instead is told by his master to stop acting like Heracles and help carry in traps. The main character of this play wants to master the phrase (*) "Brekekekex, ko-ax, ko-ax" in order to silence the title figures, and that man, Dionysus, chooses to bring Aeschylus over Euripides from the underworld after a "verse" contest. The title creatures serve as the chorus in, for ten points, what Aristophanes play named after a certain amphibious animal.

ANSWER: The **Frogs** [also accept **Batrachoi** or **Ranae**]

 $\langle AG \rangle$

BONUSES

1. Bonus: Michel Foucault argued that this model was necessary to discipline prisoners without excessive force. For ten points each:

[10] Name this model prison system in which the all of the cells are on one wall and can be seen from a central point. Its purpose is to make it impossible for prisoners to know if they are being observed at any given time.

ANSWER: Panopticon

[10] The Panopticon was designed by this English thinker, the founder of Utilitarianism.

ANSWER: Jeremy Bentham

[10] Bentham was also a teacher to this other philosopher, who put forth the greatest-happiness principle in his book,

Utilitarianism.

ANSWER: John Stuart Mill

 $\langle RP \rangle$

2. Bonus: Andrea Del Verrocchio made one of these dedicated to Bartolomeo Colleoni, and Gian Lorenzo Bernini made one work of this type depicting Louis XIV. For ten points each:

[10] Name this genre of sculpture, exemplified by a bronze one at Capitoline Hill that depicts Marcus Aurelius. According to an urban legend, the number of hooves touching the ground in works of this type can determine how the rider died.

ANSWER: **equestrian** statues [prompt on anything mentioning a horse]

[10] This Florentine artist created a famous equestrian statue of Erasmo da Narni called *Gattamelata*, but he is most popular for creating the first freestanding bronze nude since ancient times that depicts the slayer of Goliath, *David*.

ANSWER: **Donatello** [or **Donato** di Niccolò di Betto Bardi]

[10] Donatello was commissioned to create statues of St. Mark and St. George to fill two of the fourteen niches of this Florence church. It also houses *The Four Crowned Martyrs*, and its name translates as the "Kitchen Garden of St. Michael".

ANSWER: Orsanmichele

 $\langle RP \rangle$

3. Bonus: The protagonist of this work strikes another character after he criticizes the singing in an opera. For ten points each:

[10] Name this dystopian novel which follows the mayhem caused by Alex and his "droogs."

ANSWER: A Clockwork Orange

[10] In *A Clockwork Orange*, Dr. Brodsky and Dr. Branom subject Alex to this punishment after he kills another cellmate. This punishment involves conditioning Alex against violence by making him nauseous while he is shown violent images.

ANSWER: the **Ludovico Technique**

[10] A Clockwork Orange was written by this English author.

ANSWER: Anthony **Burgess**

<AG>

4. Bonus: The fact that this particle has a nonzero magnetic moment implies the existence of quarks and other subatomic particles. For ten points each:

[10] Name these subatomic particles with zero charge and a mass of one atomic unit. Atoms of the same element and different numbers of these particles are called isotopes.

ANSWER: neutrons

[10] This force helps hold together the nucleus of an atom, overpowering the electromagnetic repulsion caused by the interaction of the protons. This force is roughly 10 to the 38 times as strong as gravity.

ANSWER: strong force

[10] These spin-1 particles are the force carriers for the strong force. They come in eight different types, known as "colors."

ANSWER: gluons

<MS>

- 5. Bonus: Because earthquakes occurred when he struck his weapon on the ground, this god was often referred to as "earth-shaker." For ten points each:
- [10] Name this Greek god of the sea.

ANSWER: Poseidon

[10] Poseidon once had intercourse with this woman on the floor of a temple dedicated to Athena, prompting Athena to turn this woman into a monster. Perseus was able to kill this woman by looking at her through the reflection of his shield.

ANSWER: Medusa

[10] This giant, along with Pegasus, emerged out of Medusa's head after Perseus killed her. His name comes from the fact that he wields a golden sword.

ANSWER: Chrysaor

<MS>

- 6. Bonus: Wilde Jagd and Mazeppa are among twelve pieces of this type in one collection. For ten points each:
- [10] Name this short, challenging type of composition. A collection of six works for piano that included "La Campanella" was titled for Nicolo Paganini and exemplifies the "grand" type of these compositions.

ANSWER: etudes

[10] The *Transcendental Etudes* and *La Campanella* are both works for piano by this Romantic virtuoso and composer, who also composed the *Mephisto Waltzes* and the *Years of Pilgrimage*.

ANSWER: Franz Joseph Liszt

[10] The most famous works of Franz Liszt are these 19 pieces named for his home country. They were inspired by "gypsy music" and Magyar folk tales.

ANSWER: Hungarian Rhapsodies

 $\langle RP \rangle$

- 7. Bonus: This battle was fought along the Orontes River, for ten points each:
- [10] Name this 1274 BC chariot battle that pitted the forces of Egypt against the Hittites. It was fought over possession of the title location and ended with a peace treaty that claimed neither side had won.

ANSWER: Battle of **Kadesh**

[10] Egyptian forces at the Battle of Kadesh were led by this "Pharaoh of the New Kingdom", who married Nefertari and built two massive temples at Abu Simbel.

ANSWER: Rameses II [accept Ramses the Great, prompt on "Ramses"]

[10] The infantry of the Hittites at the Battle of Kadesh were led by this king, who also moved the Hittite capital to Tarhuntassa.

ANSWER: Muwatallis II

 $\langle RP \rangle$

8. Bonus: When this event occurred in 2016 after an 8-7 victory against the Cleveland Indians, it ended a 108-year streak of this not occurring. For ten points each:

[10] Name this event, which saw one team achieve victory for the first time since 1908. One movie predicts this event happening in 2015 against the fictional Miami Gators as a joke.

ANSWER: Chicago <u>Cubs</u> winning the <u>World Series</u> [prompt on partial, accept equivalents, accept anything more specific, like Cubs winning in 1908, 2015, or 2016]

[10] That aforementioned movie is the second in this series, which sees Marty McFly travel in time via a car created by Doc Brown. The third movie in this series sees Marty and Doc try to return from the Wild West in 1855.

ANSWER: **Back to the Future** [accept **Back to the Future** Part I, Part II, or Part III]

[10] In *Back to the Future Part II*, this character steals the time machine in order to give his past self a future sports almanac so he can become rich. In *Part III*, Marty goes back to 1855 to save Doc before this man's great-grandfather kills him.

ANSWER: <u>Biff</u> Tannen [prompt on Tannen]

<MS>

- 9. Bonus: This poem notes how a horse "scratches its innocent behind on a tree." For ten points each:
- [10] Name this poem, whose speaker describes Brueghel's "The Fall of Icarus" in the second stanza. It notes that for a ploughman, the fall "was not an important failure".

ANSWER: <u>Musee des Beaux Arts</u> [or <u>Museum of Fine Arts</u>]

[10] *Musee des Beaux Arts* was written by this poet. The speaker of another poem by him lamented that a friend was "my North, my South, my East and West" in "Funeral Blues".

ANSWER: Wystan Hugh. Auden

[10] This other Auden poem notes that we must "love one another or die". It begins with the speaker saying "I sit in one of the dives/On Fifty-second Street/Uncertain and Afraid".

ANSWER: September 1, 1939

<MS>

- 10. Bonus: If David Hilbert woke up after sleeping for one thousand years, the first thing he would ask is if this question was solved. For 10 points each:
- [10] Name this problem that states that all zeroes of a certain function are either the negative even integers or have real part 1/2. This problem is equivalent to proving that Li(x) [read lie of x] minus the prime counting function isn't too big for large x.

ANSWER: Riemann Hypothesis

[10] The prime counting function, which counts the number of primes less than a certain number, is denoted by this Greek letter. This letter also denotes a constant which is approximately equal to 3.14.

ANSWER: pi

[10] The Riemann Hypothesis is part of this collection of seven problems, of which only the Poincare Conjecture has been solved. The Clay Mathematics Institute offers one million dollars for a correct solution to any of them.

ANSWER: Millennium Prize Problems

<MS>

11. Bonus: This man captured Bayezid the Thunderbolt after the Battle of Ankara. For ten points each:

[10] Name this conqueror from Central Asia who sacked Delhi and founded a namesake dynasty that included Shah Rukh.

He acquired his infamous epithet after taking arrow wounds to the leg.

ANSWER: <u>Tamerlane</u> [Accept <u>Timur the Lame</u>]

[10] Tamerlane built the capital of his enormous empire at this city, which is located in modern day Uzbekistan.

ANSWER: Samarkand

[10] After conquering cities, Tamerlane would frequently construct several of these massive things outside of the walls of the sacked cities as he did at Baghdad, Damascus, and Isfahan.

ANSWER: **pyramid**s of **skull**s [prompt on partial answer]

<RP>

12. Bonus: This mineral is commonly used in baby powder, for ten points each:

[10] Name this softest mineral that produces a white streak and can be scratched easily with a fingernail.

ANSWER: talc

[10] Talc is given a value of 1 on this scale of mineral hardness that is named after a German geologist.

ANSWER: Mohs scale of mineral hardness

[10] The Mohs scale goes up to 10, which is used to categorize diamond, but a value of 9 is given to this next hardest class of minerals that includes Sapphire and Ruby.

ANSWER: corundum

 $\langle RP \rangle$

13. Bonus: The Tugela River rises in this country's Drakensberg Mountains before falling over 3,000 feet in the Royal Natal National Park. For ten points each:

[10] Name this African country whose Robben Island lies just west of Cape Town, one of its three capitals.

ANSWER: Republic of **South Africa** [or **RSA**]

[10] The northernmost province of South Africa shares its name with this river that forms its northern border. Known for its greasy appearance, it is the second longest African river that flows into the Indian Ocean.

ANSWER: Limpopo river

[10] This city is South Africa's largest, as well as the largest city in the world that is not located on a body of water. It is the capital of the Gauteng province and contains the destitute Soweto region.

ANSWER: Johannesburg

<HR+RP>

14. Bonus: The old valet Firs is left alone in a locked room at the end of this play. For ten points each:

[10] Name that play. After purchasing the title estate of this play from Madame Ranevskaya, the merchant Lopakhin chops down all the trees to construct cottages.

ANSWER: The Cherry Orchard

[10] *The Cherry Orchard* is a play by this Russian author. In the concept of his namesake "gun", this author argues that every literary object must serve a purpose or significance at some point in the story it appears in.

ANSWER: Anton Pavlovich Chekhov

[10] In this other Chekhov play, Ivan Voynitsky attempts to commit suicide with morphine after failing to shoot Professor Serebryakov.

ANSWER: Uncle Vanya

 $\langle RP \rangle$

15. Bonus: Answer the following about an event that was alternatively known as the "Incident on King Street". For ten points each:

[10] Name this 1770 event in which British troops that were sent to enforce the Townshend Acts shot into a crowd and killed five colonists of a certain Massachusetts town.

ANSWER: **Boston Massacre**

[10] This African-American man was the first victim of the Boston Massacre. He is bloodied and fallen in an engraving by Paul Revere of the event.

ANSWER: Crispus Attucks

[10] This British officer from the 29th Regiment of Foot was present at the Boston Massacre, and his men were charged with manslaughter. He was later acquitted by Josiah Quincey and John Adams.

ANSWER: Thomas Preston

<RP>

16. Bonus: This experiment was performed at the University of Chicago, and in it two circular metal plates were used. For ten points each:

[10] Identify this experiment in which its experimenter used the namesake substance and a cylindrical container to determine the charge of the electron.

ANSWER: Millikan oil drop experiment [prompt on partial answer]

[10] Millikan used this type of radiation to produce charges on the oil drops, from which he found that the charge on an oil drop was a integer multiple of electron charge. This type of radiation is used in medicine to observe bone fractures.

ANSWER: X-ray radiation

[10] It's not resistance, but to stop the falling of the charged oil droplets due to gravity, Millikan adjusted this value across two electrically charged plates. In a conductor, this quantity is always constant, but not necessarily zero.

ANSWER: **voltage** [or electric potential]

<AG>

- 17. Many of this religion's followers fled to the Indian subcontinent to escape persecution. For ten points each:
- [10] Name this Persian religion that worships Ahura Mazda and whose primary religious text is called the Avesta.

ANSWER: Zoroastrianism

[10] Zoroastrians worship at these locations, which must be built near water and contain an atar at their center. They are more common in India than in any other country, and Mumbai contains a large portion of them.

ANSWER: fire temples

[10] Zoroastrianism centers on the conflict between good and evil, and this twin brother of the good Ahura Mazda is the personification of evil. His name translates literally as "destructive mentality".

ANSWER: Ahriman [also accept Angra Mainyu]

<AG>

18. Bonus: The title of this work comes from the noise emitted when one of the characters kills himself by sticking a cucumber in his anus. For ten points each:

[10] Name this book, much of which centers around Takashi's rebellion against a Korean supermarket owner known as "the Emperor."

ANSWER: <u>The Silent Cry</u> [accept <u>Man'en Gannen no Futtoboru</u> or <u>Football in the First Year of Man'en</u>]

[10] This Japanese author of *The Silent Cry* also wrote about a man's mentally disabled son in the semi-autobiographical *A Personal Matter*.

ANSWER: Kenzaburo Oe

[10] This first novel written by Oe describes the survival of a group of boys and one girl abandoned in a plague-stricken village.

ANSWER: <u>Nip the Buds, Shoot the Kids</u> [accept <u>Pluck the Bud and Destroy the Offspring</u>] <MS>

19. Bonus: The father of this man forced him to watch the execution of his friend after trying to escape the royal court. For ten points each:

[10] Identify this enlightened despot who fought the 7 Year's War against Austria.

ANSWER: Frederick II [accept Frederick the Great, prompt on "Frederick"]

[10] Frederick II was a ruler of this country, which won a brief war with France in 1871 that was the final step in Germany's unification.

ANSWER: Prussia [reluctantly accept Brandenburg-Prussia]

[10] Frederick the Great fought the Seven Year's War over the territory of Silesia against the rules made by this document. This document was supposed to keep an Austrian ruler safe, but Frederick broke it anyway.

ANSWER: **Pragmatic Sanction** of 1713

<GM>

20. Bonus: Answer the following about the transfer of alleles from parents to offspring. For ten points each:

[10] This Austrian friar and founder of modern genetics used the terms recessive and dominant to describe the traits of the pea plants he studied.

ANSWER: Gregor Johann Mendel

[10] This law created by Mendel explains why the inheritance of pea color and wrinkling are unrelated to each other. It is violated, however, by traits that exhibit genetic linkage.

ANSWER: Law of Independent Assortment

[10] One way of predicting the frequency of alleles in offspring is by drawing this type of diagram that comes in dihybrid and monohybrid varieties.

ANSWER: **Punnett square** [accept dihybrid **cross**]

 $\langle LP \rangle$

21. Bonus: The most recent FIFA World Cup was hosted in this country, for ten points each:

[10] Name this country whose city of Rio de Janeiro recently hosted the Summer Olympics.

ANSWER: Federative Republic of Brazil

[10] This president of Brazil from 2003-2011 founded the Worker's Party and started a namesake movement for social reform that combined ideas from the left-wing and right-wing parties. In September 2016, he was filed for corruption charges.

ANSWER: Luiz Inácio <u>Lula</u> da Silva

[10] This woman served as Chief of Staff to Lula before becoming the President of Brazil on the first day of 2011. Michel Temer succeeded her after she was impeached in August of 2016.

ANSWER: Dilma Vana Rousseff

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22. Bonus: The current French lycée school system was implemented under this man. For ten points each:

[10] Name this leader who brought an end to the French Revolution and crowned himself emperor in 1804. After losing the Battle of Waterloo, he was exiled.

ANSWER: Napoleon I [or Napoleon Bonaparte]

[10] Before being humiliated at Waterloo, Napoleon claimed victory at this battle against the combined forces of Russia and Austria. With the signing of the Treaty of Pressburg, this battle brought an end to the War of the Third Coalition.

ANSWER: Battle of <u>Austerlitz</u> [accept Battle of the <u>Three Emperors</u>]

[10] Although Napoleon's final exile was to St. Helena, he was first sent to this Mediterranean island in 1814, after a disastrous attempt to invade Russia in 1812.

ANSWER: Elba

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