

## Harvard Fall Tournament X

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And with thanks to Will Holub-Moorman, MIT Quiz Bowl, and various playtesters



Round 3

Tossups

1. Verdet's constant affects the magnitude of an effect named after this man relating the rotation of the plane of polarization of a light wave to an external magnetic field. This scientist discovered that the electric field inside a conductor is zero using an ice pail. (\*) Lenz's law supplements a law named after this scientist that equates the time derivative of the magnetic field flux to the induced electromotive force. This man's namesake constant is roughly 96 kilocoulombs per mole of electrons, and he names a "cage" used to shield electromagnetic waves. For 10 points, give this British namesake of the SI unit of capacitance.

ANSWER: Michael Faraday

2. A character with this occupation successfully unites Calidorus with his love Phoenicium. A character of this occupation trades Heracles costumes with Dionysus in an Aristophanes play, while another character who was formerly of this occupation throws a lavish (\*) feast in Petronius's *Satyricon*. Xanthias ["zan-thee-us"] and Trimalchio held this position, and Plautus created the character of Pseudolus, an example of the stock "clever" variety of these characters. In a fable, Androcles befriends a lion after fleeing this role. For 10 points, name this position Aesop initially held before his stories convinced his master to free him.

ANSWER: slave (prompt on "servant"; prompt on "freedman")

3. Thaddeus Lowe aided one side in this battle with his reconnaissance blimp, the *Enterprise*. A cannonball shot in this battle killed Judith Henry, who lived in the building that gave Henry House Hill its name. Irvin McDowell's troops were routed at this battle by P.G.T. Beauregard. Retreat from this battle was hampered by chaotic hordes of (\*) civilians, who had come to picnic and watch the fighting. Barnard Bee was killed at this battle, but not before noting that Thomas Jackson's brigade was standing "like a stone wall." For 10 points, name this Confederate victory, the first major battle of the Civil War.

ANSWER: First Battle of Bull Run (accept First Battle of Manassas; prompt on "Bull Run" or "Manassas" alone)

4. These compounds are formed in the Baeyer-Villiger reaction. It's not an aldehyde or ketone, but an enolate of one of these compounds is prepared and reacted with a carbonyl group in the Claisen condensation.

Lactones and glycerides are both specific types of these compounds. These compounds can be made from an (\*) alcohol and a carboxylic acid in a synthesis named for Fischer. When naming these compounds, the "-oate" suffix is used, and a prominent example of one of these molecules is ethyl acetate. For 10 points, name these compounds characterized by an R-C-O-O-R arrangement of atoms, which often have fruity odors.

ANSWER: esters (accept lactones before mention)

5. While reminiscing about his former boss Frank, one character in this play accidentally turns on a tape recording of a child reciting state capitals. One character in this play decorates his shoes with the logo of the University of Virginia and ignores the advice of his neighbor (\*) Bernard. A climactic scene in this play set at Frank's Chop House occurs after one character does not obtain a loan for a sporting goods store. After seeing the Woman having an affair with his father in this play, Biff angrily gives up on his football career. Willy Loman kills himself for the insurance money in, for 10 points, what play written by Arthur Miller?

ANSWER: Death of a Salesman

6. Brazil claims that the *14-bis*, created by Alberto Santos-Dumont, was the first one of these items. Georgia representative Lawrence McDonald was killed when the Soviets accidentally attacked a Korean-owned one of these things. Bruno Hauptmann kidnapped the (\*) infant son of a man famous for operating one of these things, while Manfred von Richtofen was best known for his work with these vehicles. The Mitsubishi Zero and the *Spirit of St. Louis* were examples of these vehicles. For 10 points, name this vehicle which Charles Lindbergh used to complete the first transatlantic solo flight.

ANSWER: airplane (anti-prompt [ask for less specific] on specific types of airplanes, e.g. "jets" or "airliners")

7. Arsenite inhibits this process by reacting with lipoic acid, a key cofactor for the two de-hydrogenases involved in this process. One step of this process involves the substrate-level phosphorylation of GDP into GTP, while another step combines a derivative of (\*) pyruvate with ox-alo-acetate to form the namesake molecule of this process. Carbon dioxide is produced during the oxidation of acetyl-CoA ["uh-SEE-tul CO-AY"] in this metabolic process that occurs in the mitochondrial matrix and yields NADH and FADH<sub>2</sub>. For 10 points, name this process that occurs during cellular respiration between glycolysis and oxidative phosphorylation.

ANSWER: citric acid (or Krebs cycle; or tricarboxylic acid cycle; or TCA cycle; prompt on "cellular respiration")

8. Catch lights were used in this film to accentuate an actress's perpetually teary eyes, and 38 film studios rejected this film after Chuck Ross re-submitted the script under a false name. In a flashback in this film, a trenchcoat wearing character waits in the pouring rain at a (\*) train station before receiving a letter. A single conversation in this film contains the quotes "doesn't amount to a hill of beans," "Here's looking at you kid," and "We'll always have Paris." "La Marseillaise" ["MAR-say-YEZ"] is used as a theme throughout this film, and it ends with Ilsa leaving on a plane with the help of Rick Blaine. For 10 points, name this 1942 romance set in the title Moroccan city.

ANSWER: Casablanca

9. Two answers required. During a battle between these two empires, a futile last stand was led by Ariobarzanes. In one battle, the scythed chariots of one of these empires was overcome by the sarissa-wielding infantry of the other. Bessus betrayed the leader of one of these empires while fleeing the (\*) Companion Cavalry of the other. One of these empires was defeated at the Battle of Granicus by the League of Corinth commanded by the other, and the fall of the Achaemenid Empire occurred after the Battles of Issus and Gaugamela between these empires. For 10 points, name these two polities led separately by Darius III and Alexander the Great.

ANSWER: Macedonia and Persia (accept word forms; accept Achaemenid Empire for Persia before mention; prompt on "Greece" for "Macedonia;" prompt on partial answer)

10. **One book by this thinker discusses the Wisdom of Silenus, signaling this man's influence by Schopenhauer. Later editions of that book by this thinker contained the essay "An Attempt at Self-Criticism," and he vilified Euripides for diminishing the influence of the chorus. This man praised (\*) Richard Wagner and contrasted the order and reason of one god with the chaotic artistry of another god in *The Birth of Tragedy*. This philosopher described a "will to power" in *Beyond Good and Evil*. For 10 points, name this German philosopher who proclaimed "God is dead" and created the concept of the *Urbemensch*.**

ANSWER: Friedrich (Wilhelm) Nietzsche

11. **The phrase "courage" was controversial during this event, as was a speech on Junipero Serra. Michael Keating and Bob Brady both became notable indirectly due to this event, and the official reason for this event was the World Meeting of Families. The release of *Wake Up!*, a (\*) prog-rock album, was announced during this event, and a Congressman stole a glass of water after a speech during this event. A boy with cerebral palsy was kissed by the central figure of this event, which centered on Washington, D.C., Philadelphia, and New York. For 10 points, name this visit by the Catholic Pontiff to a North American country in 2015.**

ANSWER: Pope Francis I's trip to America (accept anything mentioning the Pope and America; accept North America in place of America)

12. **One resident of this city joked about the "proper red stuff in a ginger beer bottle" in a letter he wrote to "Dear Boss." A summer in which this city's sanitation system failed catastrophically was termed the "Great Stink." (\*) Isambard Kingdom Brunel helped design a building in this city whose title was given by an article from *Punch* Magazine. The 1851 Great Exhibition and the Crystal Palace were located in this city, while the Whitechapel Murders were criticized for their handling by this city's local "bobbies." For 10 points, name this city, which was terrorized in the 1880s by Jack the Ripper.**

ANSWER: London

13. **Disguised as the Priestess Calybe ["Cal-e-bee"], one of these figures struck King Turnus of the Rutuli with a torch to begin a war between the Latins and Trojans. These figures were the sisters of the Meliae since they both came from the blood that dripped down onto Gaea from the castrated (\*) Ouranos. These figures pursued Orestes to Apollo's Temple after he killed his mother Clytemnestra. These figures were individually named Megaera, Tisiphone, and Alecto, and they were also known as the Eumenides or "Kindly Ones." The Erinyes was the Greek name for, for 10 points, which Greek spirits who embodied vengeance?**

ANSWER: Furies (accept Erinyes, Eumenides, or Kindly Ones before being mentioned; accept Semnai, Venerable Ones, or August Ones; accept Dirae before "Greek")

14. **One character in this play calls another by the pet names of "my glancing stream" and "my crystal." A woman in this play fearfully wonders if another "has no face left," then requests not to sit on a green sofa. Before this play begins, Florence kills a (\*) lesbian postal clerk by turning on the gas at night. One character in this play is revealed to have been an army deserter in Brazil, while another had drowned the baby she had with Roger. Garcin, Inez, and Estelle find themselves trapped in a room together in this play that declares, "Hell is other people." For 10 points, name this play by Jean-Paul Sartre.**

ANSWER: No Exit (or Huis Clos)

15. **One portrait of this man contained an intentional misspelling of a country on a book in the background to mark copies. Horatio Greenough was mocked for creating a topless sculpture of this man, and in another depiction he is flanked by Liberty and Victory as he becomes (\*) a god. Constantino Brumidi painted an *Apotheosis* of this man, who is also depicted in the Lansdowne portrait. A Grant Wood painting shows Parson Weems standing by as this man holds an axe while his father scolds him. For 10 points, name this man whose portrait by Gilbert Stuart appears on the front of the one-dollar bill.**

ANSWER: George Washington

16. **A probabilistic construct with multiple levels is known as the “skip” variety of this data structure. In functional programming, the “cons” method is used to create these data structures. A specific one of these data-types has worst-case big O of  $n$  time to (\*) find an element, but guaranteed fast insertion time. The language LISP [“lisp”] is named for these data structures. Specific elements in these data structures are called a head or tail, and the most famous variety of these data structures can be singly or doubly “linked.” For 10 points, name these data structures that represent a collection of ordered elements.**

ANSWER: list (accept specific varieties like “skip,” “linked,” etc.)

17. **Alexander Scriabin was so afraid of his piano sonata of this number that he never played it in public. The finale of one symphony of this number calls for a humongous mallet to deliver the “hammer blows of fate,” and this number denotes the submediant of a scale. The composer of *Pacific 231*, Arthur Honegger, and (\*) Darius Milhaud [“mee-YO”] were members of a French group named for this number. For a major key, the note of this scale degree gives that key’s relative minor. Symphonies of this number include Mahler’s “Tragic” and Beethoven’s “Pastorale.” For 10 points, give the number of strings on a guitar as well as players in a sextet.**

ANSWER: six (accept word forms like sixth; accept Les Six [“lay-see”])

18. **A novella in this genre describes Dr. Raymond and the mysterious Helen Vaughan in *The Great God Pan*. In a novel in this genre, Conrad is crushed by a gigantic helmet and the villainous Manfred becomes lord of the title location. Horace Walpole’s *The Castle of Otranto* (\*) was written in the Gothic style, a precursor to this genre. A novel in this genre opens with a letter from Robert Walton and is subtitled “The Modern Prometheus,” while in another novel in this genre Jonathan Harker works with Van Helsing to kill the title monster. For 10 points, give this genre of books like Mary Shelley’s *Frankenstein* and Bram Stoker’s *Dracula*.**

ANSWER: horror (accept Gothic before mentioned; anti-prompt (ask for less specific) on subgenres like “ghost story,” “supernatural,” or “monster (and variants)” if they don’t mention horror already)

19. **Steffi Graf played a 32-point game against Arantxa Sanchez Vicario at this event in 1995, and rain twice interrupted a final at this event in 2008 that lasted 5 hours. Nicholas Mahut played John Isner in a record (\*) eleven hour match at this tournament in 2010, and a 77-year drought at this tournament was ended by Andy Murray in 2013. Roger Federer has reached the finals of this event a record eleven times, partially due to his skill on its grass courts. White clothing is required at this event, and strawberries with cream are traditionally eaten during it. For 10 points, name this Grand Slam held at tennis courts in London.**

ANSWER: The Championship, Wimbledon

20. **A figure in this book sitting on “seven hills” represents Rome according to the Preterist interpretation of this book. The narrator’s stomach turns sour after eating a “little scroll” that initially tastes “as sweet as honey” in this book. This book contains a description of the star (\*) Wormwood, and it contains messages for the seven churches of Asia. A beast in this book is described as speaking “like a dragon” and imparting its “mark.” This book written by John of Patmos describes the opening of the seventh seal and the Four Horsemen. For 10 points, name this New Testament book that vividly describes the second coming and apocalypse.**

ANSWER: Book of Revelation (accept Apocalypse of John; do not accept or prompt on “Book of Revelation(s)”)

21. A character created by this writer attempts to woo Kastil's sister Dame Pliant and tells Drugger he can meet the "Queen of Fairy." That character created by this author works with the prostitute Doll Common and another character named Subtle. After his master flees a (\*) plague, Jeremy pretends to be Captain Face in a play by this man to trick Epicure Mammon into believing he has the philosopher's stone. In another play by this man, the title character pretends to be dying to trick three people seeking his fortune. For 10 points, name this British playwright, the author of *The Alchemist* and *Volpone*.

ANSWER: Ben **Jonson**

## Bonuses

1. One composition by this man has served as the British coronation anthem for almost three centuries. For 10 points each:

[10] Name this composer of *Zadok the Priest*, as well as *Music for the Royal Fireworks*.

ANSWER: George Frideric **Handel**

[10] Handel wrote several suites, including *The Harmonious Blacksmith*, for this keyboard instrument. In contrast to the modern piano, these instruments produce sound by plucking strings.

ANSWER: **harpsichord**

[10] Although the makeup of this type of musical accompaniment varies, it often included a harpsichord. This feature was commonly used in Baroque music to provide harmonic structure to the work.

ANSWER: basso **continuo** (accept **figured bass** or **thoroughbass**)

2. Name these things related to the rich and powerful, for 10 points each:

[10] This term is frequently used to describe those with greater economic and financial advantage. Galbraith wrote a book about a “Society” described by this term, and a portmanteau of this term and “influenza” describes a supposed disease held by the rich not responsible for their actions.

ANSWER: **affluence** (accept word forms)

[10] This economist described the behavior of people buying things just to show off as “conspicuous consumption” in his book *The Theory of the Leisure Class*.

ANSWER: Thorstein **Veblen**

[10] This book combines the military, political, and corporate classes into the title group. In contrast, the author’s earlier book of *White Collar* focuses on the middle classes.

ANSWER: *The **Power Elite*** (the book is by C. Wright Mills)

3. The Ainu and Ryukyuan people can be found in this country. For 10 points each:

[10] Name this East Asian island nation whose largest ethnic group is the Yamato. This country also contains a decent number of people of descent from nearby Korea and China.

ANSWER: **Japan**

[10] The Ainu can be found on this northernmost of Japan’s four main islands. The Seikan Tunnel connects this island to Honshu, and an annual snow festival takes place in its city of Sapporo.

ANSWER: **Hokkaido**

[10] This term refers to the Japanese diaspora as well as emigrants who later return to Japan. In America, the various generations of these people include Issei, Nisei, and Sansei.

ANSWER: **Nikkei** people (accept **nikkeijin**)

4. The Earl of Warwick became known as the “Kingmaker” during this conflict. For 10 points each:

[10] Name this English conflict between the houses of York and Lancaster that was eventually won by Henry Tudor. A white one of the title items represented York, and a red one for Lancaster.

ANSWER: Wars of the **Roses**

[10] York and Lancaster were both sub-houses of this larger house. This house of England descended from the Angevin kings.

ANSWER: **Plantagenet**

[10] At the Battle of Bosworth Field, forces of this family decisively switched sides from the Yorks to the Tudors. Richard III threatened to execute a son of Thomas of this family if Thomas’s forces didn’t aid Richard, to which Thomas replied that he had other sons.

ANSWER: **Stanley**

5. Name some things related to the Christian aspects of the wonderful fig tree, for 10 points each:

[10] This pair of figures cover their shame with the leaves of the fig tree after being cast from the Garden of Eden.

ANSWER: Adam and Eve (prompt on partial)

[10] The parable of the barren fig tree is found in this Gospel, the third and longest of the Gospels. Other unique parables in this Gospel include the Good Samaritan and the Lost Son.

ANSWER: Gospel of Luke

[10] Jesus angrily curses a fig tree for not having any fruit shortly after leaving this village. The House of Martha and Mary is in this village, Jesus is anointed in this village, and Jesus heads to Jerusalem after leaving this village.

ANSWER: Bethany

6. Answer the following about the longstanding enmity between Andrew Jackson and Native Americans, for 10 points each:

[10] Jackson won the Battle of Horseshoe Bend against a group of warriors from this Native American tribe while fighting in their namesake war. This tribe was also nicknamed the "Red Sticks" due to the color of their war clubs.

ANSWER: Creek (or Muscogee)

[10] Jackson would later fight in the first of three wars named after this Florida-based Native American tribe. During the second of those wars, this tribe was led by Osceola.

ANSWER: Seminole (accept Seminole Wars)

[10] As president, Jackson signed the Indian Removal Act, which eventually led to this sadly-named forced removal of Cherokees and other Indians to Oklahoma.

ANSWER: Trail of Tears

7. Answer the following about the Lotka-Volterra equations, for 10 points each:

[10] The Lotka-Volterra equations model interactions between two populations in which one species is eaten by the other. Give both the term for the species that is eaten *and* the term for the species that eats it.

ANSWER: predator and prey (prompt on partial)

[10] The populations of wolves and moose on this island is often used as an example of predator-prey interactions describable by the Lotka-Volterra equations. This island in Lake Superior is home to a namesake national park.

ANSWER: Isle Royale

[10] Another important concept in population dynamics is this quantity, often symbolized  $K$ . This number describes the maximum population of a species that an environment can support.

ANSWER: carrying capacity

8. The various progeny of this god became the different classes of mankind. For 10 points each:

[10] Name this watchman of the Norse gods. He has nine mothers and gold teeth.

ANSWER: Heimdallr

[10] Heimdallr watches over Bifrost, a bridge made of this colorful phenomenon. In Greek myth, Iris is the goddess of this phenomenon.

ANSWER: rainbow

[10] Heimdallr turned into one of these animals to fight Loki and retrieve Freya's golden necklace. In Irish myth, Selkies wore the skin of these animals.

ANSWER: seals

9. This law can be stated as recessional velocity equals the namesake constant times proper distance. For 10 points each:

[10] Give this law named after an American scientist that demonstrates the universe is expanding.

ANSWER: **Hubble's Law**

[10] Hubble's Law is additionally evidence for this event that led to the birth of the universe. It was quickly followed by cosmic inflation and baryogenesis.

ANSWER: **Big Bang**

[10] Hubble also studied these stars, basing his work on Henrietta Leavitt's work on the luminosity-period relation of these stars. Because of that relation, these stars are frequently used to measure astronomical distance.

ANSWER: **Cepheid variables** ["seff-ee-id" variables] (prompt on "variable" or "variable stars")

10. LeBron James may have lost another NBA Finals, but that's okay because he can now enjoy the vibrant art scene of Cleveland, Ohio. For 10 points each:

[10] A pipe bomb blew off the legs of the Cleveland Museum of Art's copy of this Rodin statue. It depicts a sitting man with his chin resting on his hand.

ANSWER: **The Thinker** (accept *Le Penseur*)

[10] A 162-foot tall white tower is connected to a sloped glass and steel facade in a Cleveland Hall of Fame celebrating this activity. Designed by I.M. Pei, that building sits on the shore of Lake Erie.

ANSWER: **rock and roll** (*Editor's note: accept "rock and/or roll"*)

[10] The Cleveland Chamber Symphony won a Grammy in 2007 for its performance of this composer's *Oiseaux Exotiques*. This composer wrote his *Quartet for the End of Time* after being captured by Germans during World War II.

ANSWER: Olivier **Messiaen**

11. A Penelope with this surname fictionalized the life of the poet Novalis in the novel *The Blue Flower*. For 10 points each:

[10] Give this surname. Another woman with this surname wrote the semi-autobiographical *Save Me the Waltz*, in addition to being fictionalized as Nicole Diver in a novel about the psychiatrist Dick Diver.

ANSWER: **Fitzgerald** (prompt on "Sayre")

[10] Zelda Fitzgerald was married--often unhappily--to F. Scott Fitzgerald, who wrote this magnum opus about Nick Carraway and the title affluent party-thrower.

ANSWER: *The Great Gatsby*

[10] Gatsby's pursuits of Daisy are stymied by this husband of hers, a bulky man who at one point throws a punch at his own mistress Myrtle Wilson.

ANSWER: **Tom Buchanan** (accept either or both names)

12. A metal pot and a knapsack appear on the ground to the far right of one of this man's paintings. For 10 points each:

[10] Name this French artist whose *The Stone Breakers* was destroyed during World War Two. He also painted a self-portrait where he stares at the viewer with a horrified face in *The Desperate Man*.

ANSWER: (Jean Desire) Gustave **Courbet**

[10] Courbet's *Burial at Ornans* contains a white one of these animals on the right side of the scene. Another one of these animals is named in the title of a film by Salvador Dali.

ANSWER: **dogs** (accept *An Andalusian Dog* or *Un Chien Andalou*)

[10] This artist painted Courbet sitting next to a fully-clothed woman in his version of *The Luncheon on the Grass*. He painted a Le Havre harbor in *Impression, Sunrise*.

ANSWER: (Oscar)-Claude **Monet**



13. Name some members of the British literary group the Angry Young Men, for 10 points each:

[10] This writer's play *Look Back in Anger* led to the name of the Angry Young Men.

ANSWER: John **Osbourne**

[10] This writer described a meeting between two hitmen in *The Dumbwaiter* and a surreal celebration for the pianist Stanley in *The Birthday Party*.

ANSWER: Harold **Pinter**

[10] A member of the Angry Young Men with this surname wrote the violence-filled play *Saved*. Another member, Kingsley Amis, wrote several books about a spy with this surname who was originally created by Ian Fleming.

ANSWER: **Bond** (accept Edward **Bond** or James **Bond**)

14. One predecessor to this policy was the Asiatic Land Tenure Bill, passed during the government of Jan Smuts.

For 10 points each:

[10] Name this policy. It was ended by F.W. de Klerk, and one opponent of it underwent the Rivonia Trial.

ANSWER: **apartheid**

[10] One protest against apartheid was the Soweto uprising, in which hundreds of high schoolers protested the usage of this language as the medium of instruction in schools. "Apartheid" itself is a word in this language descended from Dutch.

ANSWER: **Afrikaans**

[10] The Soweto Uprising was partially organized by the Black Consciousness Movement, which was founded by this coiner of the phrase "Black is beautiful." He died after being tortured in police custody in 1977.

ANSWER: Stephen Bantu "Steve" **Biko**

15. The metal d-orbital splitting of compounds with this type of geometry is negative four ninths times the octahedral field splitting. For 10 points each:

[10] Name this type of geometry. VSEPR ["vesper"] theory predicts a bond angle of 109.5 degrees for this geometry, and ammonium, or  $\text{NH}_4^+$  ["en-aytch-four-plus"], has this geometry.

ANSWER: **tetrahedral** (accept **T<sub>h</sub>** or **T sub h**)

[10] **The strength of this allotrope of carbon comes from its tetrahedral bonding in a covalent network. This valuable mineral has the highest hardness of all natural materials.**

ANSWER: **diamond**

[10] **In contrast to the sp<sup>3</sup>-hybridization of diamond, fullerenes are sp<sup>2</sup>-hybridized allotropes of carbon. Because of that structure, fullerenes display a small degree of this characteristic described by Huckel's rule.**

ANSWER: **aromaticity** (accept word forms; prompt on "delocalization" and word forms)

16. Name the following things related to 17th century French drama, for 10 points each:

[10] This prolific French playwright described a religious hypocrite in *Tartuffe* and the idealistic Alceste in *The Misanthrope*.

ANSWER: **Molière** (or Jean-Baptiste **Poquelin**)

[10] **The playwright Cyrano de Bergerac produced some nice work of his own, but was better known for being dramatized in a play 200 years later by Edmond Rostand. In that play, Cyrano was described as having an extremely large one of these body parts, which makes him very self-conscious.**

ANSWER: **nose** (*Ed's note: let's keep it PG, please*)

[10] Pierre Corneille ["cor-nay-uh"] was best known for his play about this legendary Spanish knight. That play about this character was criticized at the time for not obeying the traditional unities.

ANSWER: *Le* **Cid** (or El **Cid**)

17. Billy Sianis angrily stated that “[this team] ain’t gonna win no more.” For 10 points each:

[10] Name this team whose most recent brush with the Curse of the Billy Goat ended with a sweep to the Mets in the 2015 NLCS.

ANSWER: **Chicago Cubs** (accept either or both answers)

[10] The Cubs have had to look on sadly as this other team overcame the Curse of the Bambino in 2004, then again in 2007 and 2013. This passionate rival of the Yankees plays at Fenway Park.

ANSWER: **Boston Red Sox** (accept either or both answers; prompt on just “Sox”; *Editor’s note: prompt on “Go Sox”*)

[10] This man interfered with a foul ball catch in the NLCS between the Cubs and the Marlins in 2003. A look-alike appeared at the 2014 NL Wild Card game wearing this man’s notorious green turtleneck and headphone wardrobe.

ANSWER: Steve **Bartman**

18. These materials have band gaps in the 1 to 5 electron-volt range. For 10 points each:

[10] Name these extremely useful materials, examples of which include phosphorous-doped silicon and gallium arsenide. They are named for having resistance halfway between conductors and insulators.

ANSWER: **semiconductors**

[10] Semiconductors are useful for displaying this effect in which voltage is produced across a conductor in a magnetic field. This effect was vital for showing that current was carried by negative, and not positive, charges.

ANSWER: **Hall** effect

[10] Semiconductors were crucial to the development of these circuit components. Varieties of these components include MOSFETs and the bipolar junction type.

ANSWER: **transistor**

19. This site is believed to have been abandoned after a series of “mega droughts.” For 10 points each:

[10] Name this archaeological site home to features such as Square Tower in its Cliff Palace complex. It was made a national park by Teddy Roosevelt in 1906.

ANSWER: **Mesa Verde** National Park

[10] Mesa Verde was built by Ancestral Puebloans, members of this larger Native American culture. Pottery eventually replaced the items this culture was known for.

ANSWER: **Basketweaver** Culture

[10] The dwellings at Mesa Verde were abandoned in the 1200s, perhaps due to climatic variations caused by the ash from one of these events. One of these events at Krakatoa was heard 2000 miles away in Australia.

ANSWER: volcanic **eruption** (accept obvious equivalents)

20. At the end of this story, the narrator discusses a stone column in the mosque of Amr that has a similar function to central object of this story, but with sound. For 10 points each:

[10] Name this story about an entity located in the nineteenth step of a basement staircase.

ANSWER: “The **Aleph**” (or “El **Aleph**”)

[10] In this other story by the writer of the “The Aleph,” the German spy Yu Tsun murders Dr. Albert after learning about a book describing the infinite ways a timeline can unfold.

ANSWER: “The **Garden of Forking Paths**” (accept “El **jardin de senderos que se bifurcan**”)

[10] Both “The Aleph” and “The Garden of Forking Paths” are by this Argentinian author somewhat obsessed with infinity.

ANSWER: Jorge Luis **Borges**

21. Let's all hold hands and answer the following questions about human chains, for 10 points each:

[10] In 1989, a human chain named for this geographical feature was formed to protest Soviet rule. The first three countries to declare independence from the USSR all border this body of water.

ANSWER: **Baltic Sea** (accept **Baltic Way**; accept **Baltic Chain of Freedom**)

[10] The Guinness world record for longest human chain was set in this country. It broke away from Pakistan in 1971 to form a new country with capital at Dhaka.

ANSWER: People's Republic of **Bangladesh** (accept Gônôprôjatôntri **Bangladesh**)

[10] On this island, British colonists tried to corral natives using a giant island-wide human chain, but only were able to capture two people. That failed campaign was part of the Black War on this island.

ANSWER: **Tasmania** (do not accept or prompt on "Australia")