

## Bergen Academies Spring Quizbowl Tournament 2016

Written by Zachary Stier, Rebecca Rosenthal, David Song, Alon Millet, Ryan Murphy, Michael Gleyzer, **Bergen Academies Quizbowl Team**; Trent Kannegieter, **Bayside Academy**; Alex Katz, **Massachusetts Institute of Technology**.  
Special thanks to Alex Dzurick, Ben Zhang and Jon Pinyan.

### Round 12: Tossups

1. **One monument in this city symbolically uses a standalone marble wall to show a reflection of the viewer with the nineteen objects at its center. A fresco located in this city by Constantino Brumidi shows Victory holding a fasces ["FASH-ees"] and the Apotheosis of its purple-robed namesake. This city's streets were planned by an architect who names a plaza and a station on this city's metro system, (\*) Pierre L'Enfant ["lan-FAHN"]. A memorial in this city consists of a sloping face of black marble with the names of over 57,000 soldiers and was designed by Maya Lin. For ten points, name this city, home to the Vietnam War Memorial and the Capitol Building of the United States.**

ANSWER: Washington, D.C.

2. **One method of synthesizing these compounds involves the condensation of an aldehyde and ammonium chloride with potassium cyanide. One way to visualize these compounds is nicknamed a [ $\phi$ , $\psi$ ] ["phi-psi"] plot and organizes them by their dihedral angles. That scheme is more formally called a (\*) Ramachandran plot. They are composed of their two namesake functional groups as well as an R-group that changes depending on the specific molecule, and they are held together by peptide bonds. For ten points, name this class of biological molecules, exemplified by cysteine and lysine, that serves as the building blocks of proteins.**

ANSWER: amino acids

3. **Clifford Brown was a player of this instrument, and Antonio Vivaldi wrote a concerto in C major for two of these instruments. Anton Weidinger was a player of this instrument and the dedicatee of Haydn's concerto in E flat for this instrument, which was one of the first to use (\*) chromatic melodies for this instrument. Its *clarino* or "natural" variety is featured in Bach's second Brandenburg Concerto and two of these instruments play in a standard brass quintet. One player of this instrument nicknamed Satchmo also sang "What A Wonderful World". For ten points name this valved, highest-pitched brass instrument, played by Louis Armstrong.**

ANSWER: trumpet (prompt on "cornet" before mention)

4. **In his first speech in one post, this man repeated the line "I am a plebeian!" As a Senator representing Tennessee, he was the only member of Congress to remain upon Confederate secession. He gave speeches in New York, Chicago, and St. Louis as part of his failed "swing around the circle" which led to the election of more (\*) Radical Republicans. Upon his perceived violation of the Tenure of Office Act, when he attempted to unseat Edwin M. Stanton, this President was placed under trial. For ten points, name this seventeenth President of the United States, the first to be impeached.**

ANSWER: Andrew Johnson

5. **This man began his career in crime during his time on the Lower East Side with his wife and infant son Santino. This character's adoptive son Tom Hagen served as his *consigliere*, and he is protective of the actor/singer Johnny (\*) Fontane. His biological sons also include Fredo and his eventual successor Michael, and Hagen's visit to Jack Woltz culminated with the death of a prize horse, the infamous "offer [he] can't refuse." For ten points, name this character created by Mario Puzo, who was portrayed by Marlon Brando and Robert de Niro on film.**

ANSWER: Don Vito Corleone or Vito Andolini (accept either) or the Godfather, prompt on "Corleone"

6. **The Gattermann reaction reacts hydrocyanic acid with this compound to form an aldehyde, but it is used more commonly as an industrial reagent to produce nylons, polystyrenes, and epoxy resins. Naphthalene is the fusion of two of these molecules. The earliest pictorial symbol for this compound was made in 1867 by Adolph (\*) Claus, but the modern notation for it was created by August Kekulé after he envisioned a snake eating its own tail. For ten points, name this ringed molecule, a chief component of crude oil with chemical formula  $C_6H_6$  ["C-6 H-6"].**

ANSWER: benzene

7. The *lian* variety of this practice forgoes the need for any witnesses and requires five oaths instead. In Wicca, this action negates handfasting, and the Talmud states that spoilt food is one justification for this action, called a *get* in Judaism. Some Cherokee can accomplish this by placing belongings on a deerskin mat outside the (\*) home, while the *talaq* form of this practice can be done at most three times with the same person. *Khula* is the right of a Muslim woman to conduct this action, and requires the remission of the dowry. The Catholic Church forbids remarriage after – for ten points – what action that terminates wedlock?

ANSWER: divorce (do not accept or prompt on “annulment of marriage”)

8. Although he was not a historian, this man’s six-volume *History of England* became the standard upon its publication. He considered his writings on *the Principles of Morals* his greatest philosophical work, and in a better-remembered work, he called everything that doesn’t qualify as “the (\*) relations of ideas” “nothing but sophistry and illusion.” This idea later became known as this man’s fork. One section contains his atheistic rejection of “superstitious delusion” and is titled “Of Miracles.” For ten points, name this Scottish empiricist, author of *A Treatise of Human Nature*, which was revised into *An Enquiry Concerning Human Understanding*.

ANSWER: David Hume

9. In this novel, Tikhon is instructed to capture an informer, but instead murders an inadequately dressed Frenchman, much to Denisov’s displeasure. Earlier, a toast gone awry at the English Club leads to this novel’s protagonist shooting Dolokhov. Initially titled *The Year 1805*, this novel originally featured (\*) French dialogue to underscore the impact of that culture on the Moscow elite. One character’s name translates to “Peter the Earless”; that is this novel’s protagonist, Pierre Bezukov. For 10 points, name this very long epic novel about the Bezukhoffs, Bolkonskys and Rostovs, set during the Napoleonic Wars by Leo Tolstoy.

ANSWER: War and Peace or Voyna i mir

10. This player was selected by the Colorado Rockies in the fourth round of the 2010 draft. In his first game, he went 18 of 34 with one touchdown and one interception. In an *NFC Championship game*, he completed a pass from the seventeen yard line to score a two-point conversion against the Green Bay Packers, an opponent he had also defeated in his rookie year by being (\*) intercepted in the endzone as time expired. This man was picked off by Malcolm Butler after Pete Carroll did not call a Marshawn Lynch play, costing this man the 2015 Super Bowl. For ten points, name this quarterback of the Seattle Seahawks.

ANSWER: Russell Wilson

11. This musical work is one of the earliest examples of program music, since it came paired with a set of poetry possibly written by the composer. In one part of this work, the viola section represents the composer’s dog barking, while another instruction tells the strings to play as “languor caused by the heat.” Its most famous section is currently played in (\*) F major, but it was originally written in E major due to different tuning standards. It was published in 1725, along with 8 other works, as *The Contest Between Harmony and Invention*. For ten points, name this set of violin concerti, written by the Italian composer Antonio Vivaldi, each representing a different time of the year.

ANSWER: *The* Four Seasons or *Le quattro stagioni*

12. This character is given thirty-six lashes by two thousand soldiers, and is subsequently pardoned by Frederick the Great. He meets Pococurante, who tires of the Raphael paintings and symphonies in his home, and he argues with a Dutch orator that his need of bread is independent of whether the Pope is the Antichrist. This character is taken in by the generous Anabaptist Jacques after being evicted from the (\*) Westphalian castle where he was raised alongside his love interest, Cunégonde [“koo-nay-gon-duh”]. He learns from Dr. Pangloss that he lives in “the best of all possible worlds.” For 10 points, name this optimist, the naïve protagonist of a Voltaire novella.

ANSWER: Candide

13. Thermal voltage times the elementary charge divided by absolute temperature gives this number. Max Planck found the value of this constant while studying black bodies, and the average kinetic energy for a gas is  $\frac{3}{2} T$  [“three halves  $T$ ”] times this value. This value is defined as the ideal gas constant  $R$  over (\*) Avogadro’s number  $N_A$  [“ $N$  sub  $A$ ”]. The Second Law of Thermodynamics is also known as the H-theorem of this value’s namesake, and one formulation of entropy is the natural logarithm of the number of microstates times this value. For ten points, name this constant found in many equations of thermodynamics, with an approximate value  $1.3 \times 10^{-23}$  Joules per Kelvin, denoted  $k$ .

ANSWER: Ludwig Boltzmann’s constant, prompt on “ $k$ ” or “ $k_B$ ” or “ $1.3 \times 10^{-23}$  J/K” before mentioned

14. This poet wrote of “The voyage of the soul—not life alone” in “Gliding O’er All” and in one epic work he called himself “the poet not of goodness only”. After serving as a volunteer nurse, this poet published the collection *Drum Taps* consisting mainly of poems about the Civil War, and wrote a poem addressed to a figure whose (\*) “lips are pale and still” after the speaker’s “fearful trip is done”. That poem, along with this poet’s “When Lilacs Last in the Dooryard Bloom’d”, mourns the death of Abraham Lincoln. For ten points, name this American poet of “O Captain, My Captain” and the collection *Leaves of Grass*.

ANSWER: Walt Whitman

15. Lamia was a mistress of Zeus forced to do this by a jealous Hera. The Baba Yaga is prevented from taking this action by the blowing of three horns, and Algonquian peoples believed that those who partake in this action become *wendigos*. Demeter was the only Olympian to partake in this action at the palace of (\*) Tantalus, who performed it on his son Pelops. Zeus takes this action to prevent an overthrow by a potential son, as his father did to the six original Olympians. For ten points, what taboo practice is exemplified by Cronus eating his own children?

ANSWER: cannibalism, or prompt on equivalents including “eating people” or “eating children”

16. Noam Chomsky called this document an instrument of the “neoliberal project to maximize profit and domination”. In response to a TransCanada legal argument based on (\*) NAFTA, Martin O’Malley criticized this agreement, saying that corporate profits should not be prioritized over national interests. The White House replied that this treaty would be “the most pro-labor, pro-environment, progressive deal in history.” For ten points, name this trade agreement whose members include Australia, Japan, Canada, and other countries on the rim of the namesake ocean.

ANSWER: Trans-Pacific Partnership (TPP)

17. This event was planned to be carried out on the Appel Quay [“key”]. One conspirator in this event, having failed at his task, attempted suicide with cyanide, but the expired poison only made him puke. It inspired the July Ultimatum, and took place on (\*) Franz Joseph street after a driver took a wrong turn. The victim’s car had stopped outside of Moritz Schiller’s store, where one conspirator was eating a sandwich. The conspirators, led by Nedjelko Cabrinovic, were from a group known as the Black Hand. For ten points, name this 1914 event in which Gavrilo Princip shot an Austrian archduke and his wife Sophie in Sarajevo, sparking World War I.

ANSWER: assassination of Archduke Franz Ferdinand, or equivalents

18. William Adams was granted land in Hemi after becoming one of these people. Early members of this group wore an outfit that had a two-part dō made of kozane [“koh-ZAH-nay”]. Members of this group could find a job by embarking on a type of pilgrimage called (\*) musha shugyo, and their only goal should be “to grasp the long and the short swords and to die”. Ronins were masterless people of this group, and disgraced members of this class could regain their honor by committing seppuku. For ten points, name this Japanese warrior class that adhered to the bushido code.

ANSWER: samurai (accept bushi or buke before “bushido”, prompt after mention)

19. Zagier’s proof of Fermat’s two-square theorem writes a prime number as a perfect square plus this integer times  $yz$ . The Klein group of symmetries of a cross has order this number. Lagrange proved that any positive integer can be represented as the sum of this many perfect squares. A theorem proved with the aid of a (\*) computer by Appel and Haken states that any map may be colored with no more than this many different colors. With the inclusion of time, it is often said that there are this many dimensions. For ten points, name this number of sides in a quadrilateral.

ANSWER: four

20. One leader of this polity was known as “The Lawgiver,” and won battles at Mohacs and Belgrade against Louis II of Hungary; that leader later signed the prototypical Capitulation treaty with France. Four of Bayezid’s sons competed for power during this empire’s Interregnum in the 15<sup>th</sup> century, and this empire found its beginnings in (\*) Anatolia, and it began to fall apart during the Eastern Question in the 19<sup>th</sup> century. Leaders of this empire typically served as caliph and were protected by janissaries. For 10 points, name this empire that originated in Asia Minor and whose sultans included Suleiman the Magnificent and its last leader, Mehmed VI.

ANSWER: the Ottoman Empire, prompt on answers involving “Turks” or “Turkey”

Tiebreaker:

**Domenico Scarlatti wrote over 500 of these pieces, making him one of the prolific composers of the Baroque Era. During the Classical period, they followed the strict format of exposition, development, and recapitulation. Bach's *Prussian* one of these was largely unrecognized for its modern sound, while (\*) Muzio Clementi earned the title of "Master" of these after writing 110 of them. However, Clementi is more famous for his smaller versions of them, which are named by adding "-ina" to their titles. For ten points, name this musical form, exemplified by Beethoven's *Pathétique* and *Moonlight*.**

ANSWER: **piano sonata** (prompt on "sonata")

## Round 12: Bonuses

1. In this author's short story, "The Lie", Eli Remenzel tears up his rejection letter from Whitehill School for Boys. For ten points each:

[10] Name this American author of *God Bless You, Mr. Rosewater*.

ANSWER: Kurt **Vonnegut**, Jr.

[10] Vonnegut also authored this novel about the time-traveling Billy Pilgrim, centered on the fire bombing of the German city of Dresden which Billy experiences in the title location.

ANSWER: ***Slaughterhouse-Five***

[10] *Slaughterhouse-Five* makes heavy use of this apathetic, three-word phrase, purportedly originated by the Tralfamadorians, especially in response to death.

ANSWER: "**So it goes**"

2. His 2015 visit to the United States was due to the World Meeting of Families. For ten points each:

[10] Name this onetime Bishop of Buenos Aires who now resides in Rome who was the first Jesuit elected to the papacy.

ANSWER: Pope **Francis** I or Jorge Mario **Bergoglio**

[10] While in Washington, D.C., Francis canonized this Spanish monk who founded several missions in California in the 18<sup>th</sup> century.

ANSWER: Junipero **Serra**

[10] The primary purpose of Francis' visit was the triennial World Meeting of Families, which was held in this city.

ANSWER: **Philadelphia**

3. This artist assisted Lorenzo Ghiberti before creating his own works. For ten points each:

[10] Name this Florentine sculptor whose bronze David was the first freestanding nude of the Renaissance.

ANSWER: **Donatello**

[10] Donatello also created this statue of Erasmo da Narni for the Piazza del Santo in Padua. Its Italian nickname means "honey cat".

ANSWER: *The Equestrian Statue of* ***Gattamelata***

[10] To create the *Gattamelata*, Donatello drew heavily from an equestrian statue constructed over a millennium earlier of this Roman emperor.

ANSWER: **Marcus Aurelius**

4. George Whitefield helped to spread this sect's teachings during the First Great Awakening. For ten points each:

[10] This sect, founded by John Wesley in the 18th century, now has churches all over the world. The "United" Church of this sect uses a cross and flame as its symbol.

ANSWER: **Methodist** or **Methodism**

[10] The pioneer Ellen G. White founded this church which notably observes the Sabbath on Friday nights into Saturday rather than the more common Sunday.

ANSWER: **Seventh Day Adventists**

[10] This sect uses the *New World Translation of the Holy Scriptures* and distributes *The Watchtower*. Their beliefs include abstention from blood transfusion and they do not celebrate birthdays or Christmas.

ANSWER: **Jehovah's Witnesses**

5. Wolfgang Petersen's *Das Boot*, about a U-boat's mission during World War II, originates from this country. For ten points each:

[10] Name this nation that has produced films such as Fritz Lang's *M* and Werner Herzog's *Aguirre: The Wrath of God*.

ANSWER: **Germany** or **Deutschland**

[10] This other Lang masterpiece was, at the time of its production, the most expensive film ever made. This silent epic includes Freder acting as the mediator between the privileged and working classes in the title city.

ANSWER: **Metropolis**

[10] F.W. Murnau's 1922 film with this title, an adaptation of *Dracula*, inspired a 1979 Herzog film of the same name.

ANSWER: **Nosferatu** *the Vampyre*

6. He was a member of the Carolingian dynasty, and founder of their Empire. For ten points each:

[10] Name this King of the Franks who was crowned Holy Roman Emperor by Leo III on Christmas Day, 800.

ANSWER: **Charlemagne** or **Charles I** or **Charles the Great**, prompt on just “Charles”

[10] Charlemagne’s capital was this city, the westernmost in Germany. During Charlemagne’s rule, this city was the origin of the Carolingian minuscule, the earliest form of lower-case letters.

ANSWER: **Aachen** or **Aix-la-Chapelle**

[10] Charlemagne’s father was this son of Charles Martel, who served as Mayor of the Palace and the first Carolingian King of the Franks.

ANSWER: **Pepin** the Short or **Pippin** the Younger

7. Many languages have elements absent in English. For ten points each each:

[10] Silbo Gomero, used to communicate across the deep valleys of La Gomera in the Canary Islands, is a whistled register of this language.

ANSWER: **Spanish** or **Castilian** (or **español** or **castellano**)

[10] This language has five to eight tones, and its written form once used modified Chinese characters before switching to the Latin alphabet, introduced by the Portuguese and the French. Modifications for this language include a horned O and a D with a stroke.

ANSWER: **Vietnamese**

[10] A hymn in this Bantu language became part of the South African national anthem in 1996. Its three clicks are denoted by the letters c, q, and x.

ANSWER: isi**Xhosa**

8. Kate Bush wrote and performed a song titled for this novel in which she sings “Heathcliff it’s me...I’m so cold”. For ten points each:

[10] Name this novel wherein Nelly Dean tells a story to a visitor to Thrushcross Grange, and the aforementioned Heathcliff lives in the title estate.

ANSWER: ***Wuthering Heights***

[10] Heathcliff loves this heroine of *Wuthering Heights*. Despite confessing her own love for Heathcliff to Nelly Dean, she eventually marries Edgar Linton.

ANSWER: **Catherine** Earnshaw or **Cathy** Earnshaw (prompt on just “Earnshaw”)

[10] *Wuthering Heights* is the only published novel of this author, whose sisters Anne and Charlotte wrote *Agnes Grey* and *Jane Eyre* respectively.

ANSWER: **Emily Brontë**, prompt on “Brontë”

9. For liquid water, its value is 4.18 Joules per gram Kelvin. For ten points each:

[10] This value represents the amount of heat that a gram of a substance must gain in order to increase in temperature by one degree Celsius.

ANSWER: specific **heat capacity**, accept **specific heat**

[10] These devices can be used to measure the energy of a reaction based on specific heat capacity. They essentially burn whatever substance is being tested and measure the amount of heat given off.

ANSWER: **calorimeter**

[10] Some calorimeters use this phenomenon to calculate temperature. In this phenomenon, when the two junctions of a loop of metal wire are at different temperatures, a current is generated.

ANSWER: **Seebeck effect** (accept **thermoelectric effect**)

10. He was nicknamed Scarface. For ten points each:

[10] Name this gangster from Chicago during the Prohibition era. He had a crucial political alliance with Republican politician William Thompson, and he headed Johnny Torrio’s mob.

ANSWER: Al **Capone** (or Alphonse **Gabriel**)

[10] During this 1929 event carried out on Capone’s orders, perpetrated with Thompson submachine guns, several men disguised themselves as police officers and shot 7 of Bugs Moran’s associates.

ANSWER: **St. Valentine’s Day Massacre**

[10] This 1944 Republican nominee for President helped to bring down Al Capone and Dutch Schultz by prosecuting them on tax evasion charges.

Answer: Thomas E. **Dewey**

11. In this work, John Galt delivers a lengthy monologue about trains. For ten points each:

[10] Name this novel in which America learns how much it needs its business leaders, titled for the Titan whose shoulders support the sky.

ANSWER: *Atlas Shrugged*

[10] *Atlas Shrugged* was written by this Russian-American formulator of objectivism who also wrote *The Fountainhead*.

ANSWER: Ayn **Rand**

[10] This protagonist of *Atlas Shrugged* is in love with copper heir Francisco d'Anconia and manages a transcontinental railroad under her inept brother, James.

ANSWER: **Dagny Taggart** (accept either)

12. Songs in this style include those from the soundtrack of *Black Orpheus* and “Chega de Saudade”. For ten points each:

[10] Name this style of music, literally translated as “new trend”, which is a fusion of samba and jazz. Composers who wrote in this style include Antonio Carlos Jobim.

ANSWER: **bossa nova**

[10] This bossa nova song was written by Antonio Carlos Jobim and featured Stan Getz on the saxophone. It includes the English lyrics “tall and tan and young and lovely”, describing the title character.

ANSWER: **“The Girl from Ipanema”** or **“Garota de Ipanema”**

[10] Bossa nova and samba are both music styles from this South American country, where an annual Carnival is held in Rio de Janeiro.

ANSWER: **Brazil**

13. Members of this phylum have a muscular foot that supports a visceral mass. For ten points each:

[10] Name this phylum of invertebrates whose more familiar members include the cephalopods, like squids and octopi, and bivalves.

ANSWER: **mollusks** or **Mollusca**

[10] One clade of mollusks are these relatively simple, symmetrical organisms. They are characterized by their girdle, or calciferous protective plates.

ANSWER: **chitons**

[10] Many mollusks, and in particular chitons, possess this rasping structure used for scraping food off of surfaces.

ANSWER: **radula**

14. This work is subtitled a “Tragicomedy in Two Acts”. For ten points each:

[10] Name this play wherein a young boy tells Estragon and Vladimir that the title figure has a long white beard, although they never meet him onstage.

ANSWER: **Waiting for Godot** (or **En attendant Godot**)

[10] Waiting for Godot was written in French by this Irish existentialist author whose prose works include *More Pricks than Kicks* and *Molloy*.

ANSWER: Samuel Barclay **Beckett**

[10] Another Beckett play is this one written for Patrick Magee, who originated its only role. It takes place on the title character’s 69th birthday.

ANSWER: **Krapp’s Last Tape**

15. He won four gold medals at the 1936 Olympics. For ten points each:

[10] Name this African-American track and field athlete, and subject of the recent film *Race*.

ANSWER: Jesse **Owens**

[10] The 1936 Olympics were held in this city, which was the capital of Nazi Germany. John F. Kennedy once claimed that he was from this city in German.

ANSWER: **Berlin**

[10] The 1936 Olympics were the subject of *Olympia*, a documentary by this German filmmaker of *The Triumph of the Will*.

ANSWER: Leni **Riefenstahl**

16. In battle, he would sometimes undergo a “warp spasm”, in which he would become a fearsome killer. For ten points each:

[10] This hero of Irish myth was originally known as Setanta, until he was renamed by a druid.

ANSWER: Cú Chulainn

[10] Cú Chulainn was renamed because he killed one of these animals in self-defense, and then promised to serve the smith Culann until a suitable replacement could be raised.

ANSWER: dog (accept hound)

[10] Cú Chulainn killed the dog as a result of a mistake made while he was playing this sport, which has been compared to lacrosse.

ANSWER: hurling

17. Joule heating is dissipation due to this property. For ten points each:

[10] This property of a material can be temperature-dependent, strain-dependent, and light illumination-dependent.

ANSWER: electrical resistance

[10] Resistance is measured using this unit, named for a German physicist.

ANSWER: ohm

[10] This other property of a material is commonly used in AC circuits. It is the complex ratio of the voltage to the current, and it describes the resistance of a circuit to a current once voltage is applied.

ANSWER: electrical impedance

18. John of Gaunt’s poll tax ignited this conflict. For ten points each:

[10] Name this uprising, fueled by John Ball’s radical sermons, which was diffused by Richard II’s negotiations at Smithsonian Hill.

ANSWER: Peasants’ Revolt, accept Wat Tyler’s Rebellion or the Great Uprising

[10] Salvestro de Medici was blamed by many nobles for causing this revolt, which was led by Michele di Lando, of the namesake Florentine wool carder guild.

ANSWER: the Revolt of the Ciompi or the Ciompi Revolt

[10] This other rebellion, named for a generic and derogatory term for “peasant” during the Hundred Years’ War, was in part inspired by a law requiring peasants to defend chateaus, and was led by Guillaume Cale in Northern France.

ANSWER: Jacquerie

19. His *Symphony in White No. 2* shows his mistress Joanna Hiffernan with a fan and cherry blossoms. For ten points each:

[10] Name this American visual artist of numerous musically titled paintings whose *Nocturne in Black and Gold* shows a falling rocket.

ANSWER: James Abbot McNeill Whistler

[10] Whistler disobeyed the orders of Frederick Leyland to decorate this room with Japanese inspired designs which he titled *Harmony in Blue and Gold*.

ANSWER: Peacock Room

[10] Whistler’s *Arrangement in Grey and Black No.1* shows a woman seated in front of a grey curtain. However, it is more commonly known and titled for its subject, who held *this* relation to Whistler.

ANSWER: his mother (accept Whistler’s Mother)

20. The San Andreas one has given rise to numerous earthquakes in southern California. For ten points each:

[10] Give the name of these discontinuities in rock layers.

ANSWER: faults

[10] The San Andreas fault exists due to the subduction of this plate into the mantle during the Jurassic. It is named for a chain of islands off of San Francisco.

ANSWER: Farallon plate

[10] Subduction of the Farallon plate and all other plate tectonics occurs in this region of the earth, the collective name for the crust and the upper mantle. Its name comes from the Greek for “rock”.

ANSWER: lithosphere



21. This man was the first to win the biggest sporting event in his nation since Fred Perry in 1936. For ten points each:

[10] Name this Scottish tennis player, who won Wimbledon in 2013.

ANSWER: Andy **Murray**

[10] This man, who Murray beat in the finals of Wimbledon 2013, is the current world number one.

ANSWER: Novak **Djokovic**

[10] Andy Murray represents Great Britain in this nationalistic tennis championship, whose final in 2015 saw Great Britain defeat Belgium.

ANSWER: The **Davis Cup**