**Buckeye Spring Tournament 2012: Spider-Man Gives Chase! FAPPO!**

All questions by Ohio State University (Max Bucher, Will Davis, Avery Demchak, Jacob Durst, Tyler Friesen, Matt Gerberich, Nandan Gokhale, Jarret Greene, Richard Hersch, Peter Komarek, Jasper Lee, Simon Lui, Lauren Menke, Asanka Nanayakkara, Brice Russ, Kirun Sankaran, Andy Sekerak, Keith Stephens, Joe Wells) and Virginia Commonwealth University (George Berry, Sean Smiley, Cody Voight)

Edited by George Berry, Jacob Durst, Jarret Greene, Jasper Lee, Andy Sekerak and Cody Voight

**Round 3 – Tossups**

**1) Heitor Villa-Lobos’ *Bachianas Brasileiras No.1* is scored for an ensemble composed solely of this instrument.  Luigi Boccherini wrote twelve concertos for this instrument, and it is the solo instrument in Max Bruch’s *Kol Nidre*.  Elgar’s concerto for this instrument was popularized by Jacqueline du Pre. Bach’s *Six Suites* for this instrument were notably recorded by Pablo** **(\*)** Casals, and the first of them in G major opens with an often-played Prelude.  For 10 points, name this instrument, which is played by Yo-Yo Ma and is smaller than a double bass.  
ANSWER: violon**cello**  
[JL]

**2) A recent novel by this author concerns Tete, a mulatto woman sold to Toulouse Valmorain, the owner of a Haitian sugar plantation. In another novel, this writer describes a woman who goes to La Senora’s brothel, is accused of the murder of Zulema Halabi, and finally marries Rolf Carle. In addition to *The Island Beneath the Sea* and *Eva Luna*, this author created a family that lives in the (\*)**“big house on the street,” includes Clara, a telekenetic who can move a three-legged table, and Esteban, who enlists help to rescue his granddaughter Alba from the military. For 10 points, name this Chilean novelist who wrote about three generations of the Trueba family in *The House of the Spirits*.  
ANSWER: Isabel **Allende**  
[JG]

**3) This book recommends the sacrifice of a bull and a goat for the sins of its constituency. Its later chapters lay out punishments for worshiping Molech and state that the High Priest can only enter the Holy of Holies on the Day of Atonement. One episode in this book describes the ordination of Aaron, and its eleventh chapter bans the consumption of (\*)** pork. Named for the tribe from which Hebrew priests were chosen, and laying out the ritual obligations of the Hebrews’ covenant with God, for 10 points, name this book of the Old Testament often used by conservative Christians to justify bigotry against homosexuals.  
ANSWER: **Leviticus**  
[KS]

**4) In one work by this author, Delamarche and Robinson help get Karl Rossmann menial jobs until Karl escapes to Oklahoma.  Another work by this author sees Leni fall in love with the protagonist, who is not helped by his lawyer Herr Huld after he is arrested for an unknown crime.  This author of *Amerika* wrote about** (\*) Josef K in *The Trial*.  In this man’s most famous novella, the protagonist is wounded when his father throws an apple that gets stuck in his back, which occurs after he awakes to discover he is vermin.  For 10 points, name this author, who wrote about Gregor Samsa in *The Metamorphosis*.  
ANSWER: Franz **Kafka**  
[JL]

**5) This number is the period, in pi units, of e to the quantity i x over two. Any number can be expressed as the sum of this many integer squares. This number is the highest degree polynomial generally solvable by an algebraic equation. The only Platonic solid with an equal number of vertices and faces has this many of each. If the last two digits of a number are (\*)** divisible by this number, then that number is divisible by this number. It is the smallest non-prime number and the only one whose prime factors are equal both when multiplied and when added. For 10 points, identify this number of vertices of a tetrahedron and the number of sides of a square.  
ANSWER: **four**  
[CV]

**6) This man first saw military action fighting under Robert Devereux at the Battle of Edgehill. This man’s power increased after John Lambert helped curb the authority of the Assembly of Saints, and before acquiring Jamaica and the port city of Dunkirk, this leader suppressed(\*) t**he Leveller movement. One of his victories came at Naseby, leading the New Model Army with which he also won the Battle of Marsten Moor before signing Charles I’s death warrant, effectively ending the English Civil War. For 10 points, name this English general who served as Lord Protector during the Interregnum.  
ANSWER: Oliver **Cromwell**  
[AS]

**7) To vanquish pigeons from this event, a harrier hawk named Rufus was brought to the premises in 2008. A viewing area outside of this event's main venue is named after four-time semifinalist Tim Henman, and the last native man to win this event was Fred Perry in 1936. In the 1990s and 2000s, Pete Sampras won seven titles here, and in 2010 Nicolas (\*)**  Mahut and John Isner played the longest match in their sport's history at this location. Recent champions of this tournament have included Rafael Nadal, Novak Djokovic, and Roger Federer. For 10 points, name this tennis grand slam played on grass in England.  
ANSWER: The Championships, **Wimbledon**  
[AS]

**8) In this opera, Arnold sings the demanding "Friends, Friends, assist my vengeance." The title character is forced to steer a boat to safety from a storm during his execution. One event in this opera occurs after the title character refuses to bow to an elevated hat belonging to (\*)** Gessler. The title character of this opera pleads in "Sous immobile" for Jemmy to hold still. The opening of this work begins with a depiction of dawn and ends with a mad cavalry charge. The title figure of this opera is forced to shoot an apple off his son's head. For 10 points, name this Giacomo Rossini opera about a Swiss patriot with is particularly known for its namesake "overture."  
ANSWER: ***William Tell*** [or ***Guillaume Tell***]  
[GB]

**9) One character in this work, an avatar of Shiva, is the son of Kesari and Anjana.  The protagonist intervenes to let Sugriva wrest a throne from his brother Vali and the eagle Jatayu loses his life attempting to stop a kidnapping. The protagonist was banished by his father, Dasharatha, from the kingdom of (\*)** Ayodhya on the orders of Dasharatha’s jealous wife Kaikeyi. Hanuman appears in this work, and his monkeys build a bridge to the island of the antagonist of this work, which was allegedly written by the Hindu sage Valmiki. For 10 points, name this Hindu epic which tells the story of the eponymous warrior-king-hero rescuing his wife Sita from the clutches of the evil Ravana.   
ANSWER: ***Ramayana***  
[JG]

**10) During the reign of this ruler, he sent his forces to capture the important salt-producing center of Taghaza and one of this man’s generals was a man named Sagmandia. This man’s primary architect was Abu Ishaq es Saheli, who designed and built Sanghore University and the (\*)** Gao mosque. Succeeded by his son Magha, one event during this man’s reign led to massive inflation and the destruction of the gold standard in Egypt due to an overabundance of this man’s gold, which came from the massive wealth attained through trade centers such as Timbuktu in this man’s empire. For 10 points, name this 12th century ruler of Mali, who undertook a famous pilgrimage to Mecca.  
ANSWER: **Mansa Musa** [accept **Musa** I]  
[JG]

**11) After one organization protested this artist’s use of stained-glass produced in Munich for a World War 1 memorial, this artist made one painting satirizing three old women, one daintily holding a teacup with ringless fingers, as they stand in front of *Washington Crossing the Delaware*. That painting is (\*)**  *Daughters of Revolution*. In this man’s most famous painting, a red barn stands next to a white house, in front of which are two figures who are not smiling. In that painting by this man, a woman stands next to her father, who wears glasses and is holding a pitchfork.  For 10 points, name the artist of *American Gothic*.  
ANSWER: Grant DeVolson **Wood**  
[JL]

**12) One episode in this country’s history, known as the Lesser Wrath, was brought about by a neighboring country’s Hat party and resulted in the this country’s occupation. The Treaty of Tilsit allowed Russia to conquer this country, and** **Tsar** **Alexander II created its Diet. The Continuation War saw this country side with Germany during Operation Barbarossa  not long after it was forced to surrender after the collapse of the** **(\*)** Mannerheim Line in the Winter War. This country gained Independence from Russia following the Treaty of Brest-Litovsk. For 10 points, name this Northern European, non-Scandinavian neighbor of Sweden with capital at Helsinki.   
ANSWER: **Finland** [accept **Suomi**]  
[JG]

**13) One city in this country features the Cube Houses designed by Piet Blom, while that same city also contains the  Euromast tower, constructed for the Floriade, a horticultural exhibition in this country. The West Frisian Islands are separated from this country’s mainland by the Wadden Sea, and the** **(\*)** Amstel River terminates in its capital. This nation’s Delta Works helps to prevent flooding in provinces like Zeeland, and its Peace Palace houses the International Court of Justice in The Hague. Featuring numerous windmills, for 10 points, name this low-lying country with cities such as Utrecht and Rotterdam and whose capital is Amsterdam.  
ANSWER: The **Netherlands**  
[AS]

**14) These molecules can be regulated by covalent modification. Daniel Koshland suggested the induced fit model of these moecules. Trypsin and pepsin A are both types of these. Methanol poisoning is cured by ethanol because ethanol competitively inhibits one of these by binding to its (\*)** active site. One of the earliest models of their behavior treated a substrate as a lock and them as a key. One of these molecules found in the liver breaks down hydrogen peroxide and is catalase. For 10 points, identify these proteins that lower the activation energy of biochemical reactions.  
ANSWER: **enzyme**s [prompt on **protein**s]  
[CV]

**15) In one novel, this author wrote about Pugnax, a dog who reads a book about anarchism and is a member of the Chums of Chance. In addition to *Against the Day*,  this author’s other works include one where George Washington smokes marijuana with the title surveyors and a work where the protagonist  meets a man named Metzger, a former child actor who went by the name “Baby Igor.”  That protagonist is** **(\*)** Oedipa Maas, who is tasked with executing Pierce Inverarity’s will.  In another work, this author of *Mason & Dixon* wrote about  Tyrone Slothrop’s search for a V-2 rocket.  For 10 points name this reclusive American author of *The Crying of Lot 49* and *Gravity’s Rainbow*.  
ANSWER: Thomas Ruggles **Pynchon** , Jr.  
[MJB]

**16) In this man's *Pisa Lectures*, he discussed the theta criterion, which requires a one-to-one correspondence between arguments and theta-roles such as Agent and Patient, and developed the "principles-and-parameters" approach behind his Government-Binding Theory. With Morris Halle, he co-wrote *The*****(\*)** *Sound Patterns of English* in 1968, and his first work, *Syntactic Structures*, introduces his concept of transformational-generative grammar and includes the sentence "Colorless green ideas sleep furiously". A proponent of "universal grammar" and a well-known author of anarchist and anti-capitalist texts, for 10 points, name this MIT professor, a founding figure of modern linguistics.  
ANSWER: Noam (Avram) **Chomsky**  
[BR]

**17) Atoms of this element can be arranged into nanotubes that have high levels of conductivity. This is the first element to have two electrons in a p orbital. This is the most common element to form long chain like structures via covalent bonds. The study of compounds that contain this element is known as** (\*) organic chemistry. Fullerenes are composed only of this element.The most abundant stable isotope of this element is the basis for atomic mass. An isotope of this element with a half-life of about six thousand years is commonly used for radioactive dating. For 10 points, name this element whose allotropes include diamond and graphite.  
ANSWER: **carbon**  
[CV]

**18) At this battle, the Irish Brigade took heavy casualties assaulting the Sunken Road, which soon became known as Bloody Lane. Dunker Church was held by Stonewall Jackson, who days before took the armory at Harper’s Ferry. After this battle, George (\*)** McClellan was stripped of his command for not pursuing a retreating Robert E. Lee, though Lincoln would still use this Union victory to issue the Emancipation Proclamation.  For 10 points, name this Civil War battle, the bloodiest day in US history, fought on September 17, 1862 near a Maryland town.  
ANSWER: Battle of **Antietam** [or Battle of **Sharpsburg**]  
[AS]

**19) This quantity is approximately equal to the square root of the relative permittivity for most materials. The main research in metamaterials is on ones that have negative values for this quantity. The arctan of the ratio of this quantity is equal to Brewster's angle. The phase velocity is equal to the speed of light divided by this quantity. Its ratio is equal to the (\*)** sines of the angle of incidence and refraction according to Snell's law. For 10 points, name this quantity, symbolized n, that is defined as the speed of light in a vacuum divided by the speed of light in a medium.  
ANSWER: **index of refraction** [or **refractive index**]  
[MG]

**20) In one poem by this author, the speaker says the title creatures “paddle in the cold,” while visiting a place where “All’s changed” in the nineteen Autumns since his last visit. In another poem by this co-founder of the Abbey Theater, the speaker remarks that "Those that I fight I do not hate/Those that I guard I do not love,” and this poet remarked that “A (\*)**  terrible beauty is born” at the end of a poem about the Easter Uprising. This poet wrote that a  “rough beast” slouches towards Bethlehem to be born." For 10 points, name this Irish poet of “The Wild Swans at Coole,” “An Irish Airman Foresees His Death,” “Easter, 1916,” and “The Second Coming.”  
ANSWER: William Butler **Yeats**  
[JG]

**TB) One conflict in what would become this city was Kieft’s War, and involved Lenape Native Americans. John Peter Zenger was found not guilty at his libel trial here. The Crown Heights Riots occurred in this city during the mayoralty of David Dinkins. In 1911, 146 people died in the** **(\*)** Triangle Shirtwaist Factory fire here, while draft riots rocked this city during the Civil War. The 19th century politics of this city were dominated by Tammany Hall, and it was held during the 17th century by the Dutch, when it was known as New Amsterdam. For 10 points, name this city where the World Trade Center was attacked on 9/11.  
ANSWER: **New York** City  
[AS]

**Buckeye Spring Tournament 2012: Spider-Man Gives Chase! FAPPO!**

All questions by Ohio State University (Max Bucher, Will Davis, Avery Demchak, Jacob Durst, Tyler Friesen, Matt Gerberich, Nandan Gokhale, Jarret Greene, Richard Hersch, Peter Komarek, Jasper Lee, Simon Lui, Lauren Menke, Asanka Nanayakkara, Brice Russ, Kirun Sankaran, Andy Sekerak, Keith Stephens, Joe Wells) and Virginia Commonwealth University (George Berry, Sean Smiley, Cody Voight)

Edited by George Berry, Jacob Durst, Jarret Greene, Jasper Lee and Cody Voight

**Bonuses – Round 3**

1) Name some people involved in the never-ending soap opera that is Alaska politics, for 10 points each:  
[10] This longest-serving Republican senator in history lost a 2008 re-election bid to Mark Begich. This man’s conviction in a federal corruption trial probably hurt him in that race. He died in an August 2010 plane crash.  
ANSWER: Theodore “Ted” **Stevens**  
[10] This current Republican senator from Alaska won re-election on write-in votes in 2010 after being defeated by Joe Miller in the primary. Her father Frank, Alaska’s governor from 2002 to 2006, first appointed her to the senate.   
ANSWER: Lisa **Murkowski**  
[10] In her memoir *Going Rogue,* this former mayor of Wasilla and successor as governor to Frank Murkowski told of her experiences running as the vice presidential candidate for John McCain’s 2008 presidential campaign.  
ANSWER: Sarah **Palin**  
[MJB]

2) [Note to moderator: **DO NOT SAY THE LAST NAME WHEN GIVING THE ANSWER TO THE FIRST PART**]   
This character is referred to by another as his “cherub.” For 10 points each,  
[10] Name this full brother of Ivan who spends time in a monastery among the order of Elders before Father Zosima sends him out into the wider world.  
ANSWER: **Alyosha** Fyodorovich Karamazov [accept **Alyoshka**, **Alyoshenka**, **Alyoshechka**, **Alexeichik**, **Lyosha**, and **Lyoshenka**; prompt on “Karamazov”]  
[10] Alyosha appears in this novel, in which Ivan recites "The Grand Inquisitor," a poem denouncing Christ for giving free will to people.  
ANSWER: ***The Brothers Karamazov***  
[10] *The Brothers Karamazov* is by this Russian writer, who wrote *The Gambler* to pay off his debts and depicted the debauched nobleman Stavrogin in *The Posessed*, and the murderous Raskolnikov in *Crime and Punishment*.  
ANSWER: Fyodor **Dostoevsky**  
[JD/JG]

3) One form of this process results from the expansion of igneous rocks due to reduced pressure and is called unloading, and this process usually results in the development of joints. For 10 points each:  
[10] Identify this geological process whose most well known form is a result of freeze-thaw cycles and is known as frost wedging.  
ANSWER: **mechanical weathering** [or **physical weathering**; prompt on **weathering**]  
[10] A common agent responsible for chemical weathering is this weak acid created by the dissolution of carbon dioxide in water.  
ANSWER: **carbonic acid** [or **H2CO3**]  
[10] Weathering is the first step in this process by which materials are removed from the Earth's crust and transported to another location.  
ANSWER: **erosion**  
[CV]

4) This man allegedly attempted to refuse treatment on his deathbed, claiming that “sickness is the natural state for Christians.” For 10 points each:  
[10] Name this 17th century French mathematician and philosopher, who claimed that believing in God is more beneficial than the alternative in his namesake “wager”.  
ANSWER: Blaise **Pascal**  
[10] Pascal’s Wager is described in this incomplete apologetic work which also contains a section on “proofs of Jesus Christ.”  
ANSWER: ***Pensées*** [or ***Thoughts***]  
[10] In Pascal’s *Lettres provinciales*, he defends Jansenism from this Catholic religious order, founded by Ignatius of Loyola and known for its work in education and intellectual pursuits.  
ANSWER: **Society of Jesus** [or **Jesuit**s]  
[BR]

5) This group served as the military wing of the Sinn Fein party before devolving into the Provisional version of itself that sought the unification of its namesake island. For 10 points each:  
[10] Name this group created out of what remained from the failed 1916 Easter Rising. It bombed Ulster and assassinated Louis Mountbatten.  
ANSWER: **I**rish **R**epublican **A**rmy  
[10] This participant in the Easter Rising founded the IRA. He served as finance minister in the government of Eamon de Velera and helped negotiate the 1921 treaty that established the Irish Free State.  
ANSWER: Michael **Collins**  
[10] This conservative British Prime Minister ignored the hunger strike of Provisional IRA member Bobby Sands, making her a target of that group. Her administration also saw a notable coal miners strike.  
ANSWER: Margaret **Thatcher**  
[AS]

6) This continent is entirely surrounded by the Southern Ocean. For 10 points each:  
[10] Identify this content with its highest point at Vinson Massif. Notable as the home of the Emperor Penguin, this frigid realm is also the world’s largest desert.  
ANSWER: **Antarctica**  
[10] Antarctica possesses both a sea and an ice shelf with this name. The sea of this name is situated between Victoria Land and Marie Byrd Land, while the Little America exploration bases were established on the ice shelf.  
ANSWER: **Ross** [accept **Ross** Sea or **Ross** Ice Shelf]  
[10] This explorer intended to cross Antarctica, exiting at the Ross Sea, as part of a 1914 expedition. He died during a crossing attempt funded by John Rowett and his name denotes an ice shelf off the coast of Queen Mary Land.  
ANSWER: Sir Ernest **Shackleton**  
[AS]

7) One of these two characters flips a coin heads 92 times in a row, while they argue philosophical questions while playing tennis against each other.  For 10 points each:  
[10] Name these two characters, who are suddenly transported to Denmark after meeting The Player and his acting troupe.  They often mix up each others’ names and end up on a boat after watching *The Murder of Gonzago*.  
ANSWER: **Rosencrantz** and **Guildenstern** [accept in either order, but both are required]  
[10] Rosencrantz and Guildenstern are the two title characters of an absurdist play by this man, who is also known for writing *Arcadia* and *The Real Thing*.  
ANSWER: Tom **Stoppard** [or Tomas **Straussler**]  
[10] Rosencrantz and Guildenstern are minor characters in this play by William Shakespeare, whose protagonist is a Prince of Denmark who is loved by Ophelia and who seeks revenge against his uncle Claudius.   
ANSWER: ***Hamlet***  
[JL]

8) Name some things regarding the Twelve Labors of Heracles, for 10 points each:  
[10] Heracles’ second labor had him kill this many-headed monster that would grow a new head each time one was cut off.  His nephew Iolaus helped, while Hera attempted to stop Heracles using a crab.  
ANSWER: Lernean **Hydra**  
[10] Heracles’ eleventh labor saw him travel to the Garden of the Hesperides in order to obtain these objects.  Eris threw one during the wedding of Peleus and Thetis.  
ANSWER: golden **apple**s  
[10] The Twelve Labors were ordered by Hera through this king of Tiryns, who would usually hide in a bronze jar when Heracles returned with the prize he was tasked with obtaining.  
ANSWER: **Eurystheus**  
[JL]

9) The excessive spending of Anne of Austria and her advisers caused nobles to launch the Fronde against this royal house. For 10 points each:  
[10] Identify this dynastic house that ultimately lost power in France during the July Revolution of 1830, in which Charles X abdicated in favor of Louis-Philippe.  
ANSWER: House of **Bourbon**  
[10] This Bourbon monarch was the French king during the Fronde, although he was too young to rule. This “Sun King” would later revoke the Edict of Nantes, combat the League of Augsburg, and built the palace at Versailles.  
ANSWER: **Louis XIV** (prompt on **Louis**)  
[10] This chief adviser of Louis, the successor to Cardinal Richelieu, helped put down the Fronde. He also represented France at the Peace of Westphalia and secured the Peace of the Pyrenees with Spain.  
ANSWER: Cardinal Jules **Mazarin**  
[AS]

10) This character fails to become a professor, berates the police officer Angelo Mancuso, and works on a study of the rise of “Bad Taste” following the breakdown of the Medieval system. For 10 points each:  
[10] Name this character, a fan of both “American Bandstand” and Boethius, who constantly deflects blame from himself and reluctantly goes to work as a hot dog vendor.  
ANSWER: **Ignatius** J. **Reilly** [accept either underlined portion]  
[10] Ignatius J. Reilly appears in this comedic novel by John Kennedy Toole, published after the author’s suicide, which also features Myra Minkoff, with whom Ignatius often attacked the teachings of their professors.  
ANSWER: *A* ***Confederacy of Dunces***  
[10] The action of A Confederacy of Dunces takes place in the French Quarter of a city located in this state, also the setting of Kate Chopin’s *The Awakening* and George Washington Cable’s *Old Creole Days*.   
ANSWER: **Louisiana**  
[JG]

11) This artist’s *Benois Madonna* is found today in The Hermitage of St. Petersburg, while his other Christian-themed works include two similar depictions of *Madonna of the Rocks*. For 10 points each:  
[10] Name this artist, who also made a famous fresco of *The Last Supper*.  
ANSWER: **Leonardo** **da Vinci** (accept either)  
[10] Da Vinci’s most influential work is this 1506 portrait. A rocky landscape provides a backdrop to the subject, who has subtle shadows around her eyes and distinctive smile. It hangs in the Louvre.   
ANSWER: ***Mona Lisa*** (accept *La* ***Gioconda***)  
[10] This sketch by da Vinci was based off a description from a Roman architect’s treatise. It shows a male figure circumscribed by a circle and a square, with the arms and legs superimposed in two different positions.    
ANSWER: ***Vitruvian Man***  
[JD/JL]

12) The name for these was allegedly coined by Charles Michelson, who worked as Publicity Director for the Democratic National Committee. For 10 points each:  
[10] Identify the term that describes these shantytowns that originated in cities in the early 1930s. They were  named after this man who enacted the Hawley-Smoot Tariff and served as Commerce Secretary during much of the 1920s.  
ANSWER: **Hooverville**s  
[10] FDR attempted to remedy Hoovervilles and the Great Depression with this series of economic and social programs. Its constituent programs included the Tennessee Valley Authority and the Civilian Conservation Corps.  
ANSWER: **New Deal**  
[10] The Supreme Court dealt a blow to the New Deal with this 1935 case that invalidated the National Industrial Recovery Act on the grounds it gave the President legislative powers and violated interstate commerce.  
ANSWER: ***Schechter*** *Poultry Corporation v. United States* [or **sick chicken** case]  
[AS]

13) This symphony’s fourth movement takes a theme from the composer’s ballet The Creatures of Prometheus.  For 10 points each:  
[10] Name this symphony, whose second movement is a C-minor funeral march. The piece was once dedicated to Napoleon, but the composer removed it before its premiere.  
ANSWER: Symphony No. **3** in E flat Major “**Eroica**” by Beethoven [accept either underlined portion; do not reveal the name of the composer]  
[10] The “Eroica” symphony is by this German composer of the “Emperor” piano concerto and “Fur Elise.”  
ANSWER: Ludwig van **Beethoven**  
[10] This Beethoven symphony is perhaps best-known for its A-minor Allegretto second movement, and Richard Wagner once remarked that it was “the apotheosis of the dance.”  
ANSWER: Symphony No. **7** in A Major  
[JL]

14) Answer the following about the hydrogen atom, for 10 points each:  
[10] This Danish scientist developed an atomic model using the hydrogen atom. In that model, the energy of electrons is quantized, restricting them to specific orbits.  
ANSWER: Niels **Bohr**  
[10] The Bohr model explains this formula, which gives the possible wavelengths of photons emitted by a hydrogen atom when an electron transitions between different energy levels.  
ANSWER: **Rydberg** formula [or **Rydberg** equation]  
[10] The series of spectral lines of hydrogen in the visible spectrum is known by this name. It involves transitions starting or ending in hydrogen's first excited state.  
ANSWER: **Balmer** series  
[JL]

15) In one section of this poem, the narrator asks "Do I contradict myself?" before continuing "Very well, then, I contradict myself. / I am large, I contain multitudes." For 10 points each:  
[10] Name this free-verse poem first published in 1855 as part of a larger collection.  
ANSWER: "**Song of Myself**"  
[10] "Song of Myself," along with poems such as "I Sing The Body Electric" and "When I heard The Learn'd Astronomer," appears in *Leaves of Grass*, a collection by this American poet.  
ANSWER: Walt **Whitman**  
[10] Whitman's memorializing poems "When Lilacs Last in the Door-Yard Bloom'd" and "O Captain! My Captain!" were both written in response to the death of this U.S. president.  
ANSWER: Abraham **Lincoln**  
[BR]

16) During this technique, safranin is used to dye the cells that do not respond positively to the application of the first reagent.  For 10 points each:  
[10] Name this technique in which some bacteria are dyed purple after the application of crystal violet.    
ANSWER: **Gram** stain  
[10] Bacteria that test Gram-positive have a thick cell wall made out of this material.  While a layer of this material is also found in Gram-negative bacteria, the outer membrane of those bacteria prevents crystal violet from staining them.  
ANSWER: **peptidoglycan** [or **murein**]  
[10] In the Gram stain, a trapping agent containing this element is applied after crystal violet. This element dyes starch blue-black in its namesake test and is added to salt to prevent goiter, a thyroid condition.  
ANSWER: **iodine**  
[JL]

17) This country is believed to be behind the 1986 assassination of Swedish Prime Minister Olof Palme and the shooting of Dulcie September in Paris. For 10 points each:  
[10] Name this country at times led by Jan Smuts and F.W. De Klerk, and which is the only country to ever voluntarily give up its nuclear weapons.  
ANSWER: **South Africa**  
[10] De Klerk and Nelson Mandela shared the 1994 Nobel Peace Prize for their efforts in ending this system of forced segregation in South Africa. Its name is Afrikaans for “apartness.”  
ANSWER: **Apartheid**  
[10] One event during the Apartheid period of South African history was this 1976 event that saw students rioting in the namesake Johannesburg township revolt over the passing of the Medium Decree which mandated the teaching of Afrikaans.  
ANSWER: **Soweto** Uprising  
[JG]

18) Aqua regia can dissolve this element, and it is found in ores such as krennerite and sylvanite along with tellurium and silver.  For 10 points each:  
[10] Name this precious metal, whose purity is measured in karats.  It is known for its yellow color.  
ANSWER: **gold** [accept **Au**]  
[10] A gold foil was used in an experiment by this man, who disproved the plum pudding model of the atom.  In that experiment, some alpha particles reflected backward, leading to the discovery of the nucleus.  
ANSWER: Ernest **Rutherford**  
[10] One man who carried out the Rutherford gold foil experiment was this formulator of a namesake counter that can measure radiation.  
ANSWER: Hans **Geiger**  
[JL]

19) This sculptor of *The Burghers of Calais* spent much of his life working on a massive series of reliefs for a door based on “The Inferno.” For 10 points each:  
[10] Name this sculptor that depicted Paolo and Francesca in *The Kiss*, one of the works he intended for use in his *The Gates of Hell*.  
ANSWER: Auguste **Rodin**  
[10] This sculpture by Rodin originally designed for the top of The Gates of Hell features Dante crouched in a contemplative pose.  
ANSWER: *The* ***Thinker*** [or *The* ***Poet***, or *Le* ***pensuer***]  
[10] Rodin was accused of having used a human being as the mold for this statue of a nude male, made from the namesake material.   
ANSWER: *The* ***Age of Bronze*** [or *L'****Age d'airain***]  
[GB]

20) Answer the following questions about the relationship between Catholics and philosophy, for 10 points each:  
[10] Rene Descartes could not understand how Christ’s body could be in several places at once as Catholics simultaneously take Communion, as necessitated by this doctrine, which states that the Eucharist literally is the body and blood of Christ.  
ANSWER: **Transsubstantiation**  
[10] This fourteenth-century philosopher concluded the pope was a heretic for denying that the Order of Franciscans really did need to live in poverty; he is perhaps better known for a famous namesake razor, telling us not to use unnecessary hypotheses or “multiply entities beyond necessity.”  
ANSWER: William of **Ockham**  
[10] This philosopher was a noted Papist who put forth the “five ways,” proofs for the existence of God, in his *Summa Theologica*.  
ANSWER: Thomas **Aquinas**  
[RKS/KS]

TB) This group took its name from a kingdom that had a famous temple complex at Ankor Wat. For 10 points each:  
[10] Name this communist organization that overthrew the government of Lon Nol and set up centers of terror such as S-21, in addition to running the notorious “killing fields.”  
ANSWER: **Khmer Rouge** [prompt on “Khmer”]  
[10] This man was the leader of the Khmer Rouge under whose regime his country would lose 2 million people and be invaded by the recently united Vietnam.  
ANSWER: **Pol Pot**  
[10] One of the Khmer Rouge’s first actions upon coming to power was to order the evacuation of Phnom Penh, the capital of this country which it ruled.   
ANSWER: **Cambodia**  
[JG]