1. The KDEL retention sequence signals which proteins remain in this organelle, and one of this organelle's functions is glycosylation (gly-COSS-ill-AY-shun) of proteins. COPI (cop one) and COPII (cop two) proteins aid in transporting proteins between the Golgi body and this organelle. The presence or absence of ribosomes on the surface of these organelles determines whether they are of the "rough" or "smooth" variety. For 10 points, name this organelle that helps fold and transport proteins.
ANSWER: **endoplasmic reticulum** [or **ER**]

032-10-14-05101

2. One figure targeted during this rebellion was the general John Neville, who was sent to oversee the collection of taxes. One man involved in putting down this rebellion was "Light Horse Harry" Lee, who had earlier served in the American Revolution. The militia forces gathered to put down this rebellion were led by the president at the time, George Washington, although no resistance was met. For 10 points, name this rebellion in western Pennsylvania that started after the United States government passed an excise (ECK-size) tax on a certain form of alcohol.
ANSWER: **Whiskey** Rebellion

023-10-14-05102

3. In the study of graphics, an object with this name functions as the complement to a raster. The Cauch-Schwarz inequality concerns the multiplication of two of these objects. The triangle inequality concerns the addition of these objects. These objects sum is found by the parallelogram rule. These generalizations of numbers are the inputs of a cross product and a dot product, and many of them feature x,y, and z components. For 20 points, name these quantities with a magnitude and direction, distinguished from scalars.
ANSWER: **vector**s

033-10-14-05103

4. This author wrote *Nana* as part of his twenty-volume series titled *Les Rougon-Macquart*. That series contains this author's novel about a coal mining strike called *Germinal*. This author is best-known for an letter to Felix Faure published in Georges Clemenceau's newspaper. That letter by this author states that an act of espionage was committed by Major Esterhazy and that anti-Semitism resulted in the banishment to Devil's Island. For 10 points, name this French author who defended Alfred Dreyfus in his letter *J'Accuse*.
ANSWER: Émile Édouard Charles Antoine **Zola**

020-10-14-05104

5. In this film, Sid Garner gives his daughter's fiancé a Mercedes to drive for a weekend. One character in this movie reads a prepared speech about how he is in a pack of lone wolves on top of his hotel. In this film, Ken Jeong plays the gangster Leslie Chow, who is found naked in the trunk of a car. Mike Tyson's tiger is stolen by the central group, which includes the dentist Stu and the teacher Phil. This film revolves around Doug's disappearance during his bachelor party. For 10 points, name this movie in which characters played by Justin Burtha, Bradley Cooper, and Zack Galfinakis all travel to Las Vegas.
ANSWER: The ***Hangover***

027-10-14-05105

6. Fluid movement across these entities is calculated by the Starling equation. In the kidney, the glomerulus (glo-MAIR-you-lus) is formed of these entities, whose activity was first observed by Marcello Malphigi (mal-FEE-gee). "Fenestrated" types of these structures allow small amounts of protein and small molecules to diffuse through them. Many of these structures are only one cell thick. Oxygen is delivered to cells by diffusing across the walls of these vessels. For 10 points, name these smallest blood vessels in the human body.

ANSWER: **capillaries** [or **capillary**; or **capillary** bed before mentioned]

7. The protagonist of this novel bakes a rope ladder into a "witch pie" in an attempt to rescue another character. A pair of con men in this work put on the play "The Royal Nonsuch," and are discovered when they fail to describe a tattoo on the deceased Peter Wilks. The protagonist of this novel witnesses the feud between the Grangerfords and the Shepherdsons after escaping from his drunken father Pap. For 10 points, name this novel about a boy who escapes from the Widow Douglas with the slave Jim, a work by Mark Twain about the friend of Tom Sawyer.

ANSWER: The Adventures of **Huck**leberry **Finn**

8. The absence of these geological features can cause isostatic rebound, while the presence of these features can cause crust subsidence. These features make rock flour that can create milky-colored bodies of water. The retreat of these features can form sharp ridges called arêtes (uh-RETZ). The lower parts of these features are known as ablation zones, and these features use plucking and abrasion to create drumlin fields and eskers. For 10 points, name these large bodies of moving ice.

ANSWER: **glacier**s

9. This man's works include a long poetic description of a New Jersy town, *Paterson*. He wrote about an item "glazed with rain water beside the white chickens" in a poem in which "so much depends upon" that titular object, and in another of his poems, the speaker apologizes for "eating all the plums that were in the icebox and which you were probably saving for breakfast." For 10 points, name this poet and physician who wrote "The Red Wheelbarrow" and "This Is Just To Say."

ANSWER: William Carlos **Williams**

10. This emperor is said to have cried, "Varus, give me back my legions," after a loss to Arminius at the Battle of Teutoburg Forest. This ruler was the subject of a philippic by Cicero. This man's general Agrippa was successful in the Battle of Actium over his political opponent, who formed the Second Triumvirate with himself and Marcus Lepidus. This emperor was succeeded by Tiberius. For 10 points, name this first emperor of the Roman Empire, the adopted son of Julius Caesar.

ANSWER: Gaius Julius Caesar **Augustus** [or **Octavian**; or Gaius **Octavius** Thurinus]

11. This piece includes the song "In the Tavern," in which a tenor soloist sings as a swan roasting on a spit. This piece was often performed before the composer's semi-staged *Passions of Bach*. Other songs in this piece include "Court of Love" and "Banziflor and Helen." This piece was derived from a medieval collection of songs discovered by J.A. Schmeller in the Benediktbeuern [beh-nuh-dict-BOY-ern] monastery. For 10 points, name this musical work that begins and ends with songs entitled "O Fortuna" that was written by Carl Orff.

ANSWER: *Carmina Burana*

12. This god is sometimes known as the "drowned one," as he drifted in a sarcophagus across the Mediterranean Sea to Byblos. After being found again by his wife, his brother became jealous, and cut this god into fourteen pieces. Dead pharaohs were associated with this god, who is depicted as the god of the underworld. For 10 points, name this Egyptian god, who fathered Horus with his wife and sister Isis.
ANSWER: **Osiris**

13. Vincent Oge led a mulatto revolt in this country. This nation was terrorized by a secret police force known as the tonton macoutes during the reign of a father and son from 1957 to 1986. Jean Bertrand Aristide helped bring about the downfall of that family when "Baby Doc" Duvalier was forced to flee this nation in 1986. For 10 points, name this Carribean nation in which Jacques Dessalines, Henri Christophe, and Toussaint L'Ouverture led a slave revolt to gain independence from France.
ANSWER: Republic of **Haiti**

14. This artist depicted winged angels playing musical instruments in the side panel to his *Virgin of the Rocks*. This artist of a portrait of Ginevra de Benci was taught by Verrocchio (ver-OH-kee-oh). This artist sketched a man whose arms and legs are shown in two different positions inscribed within a circle and a square in *The Vitruvian Man*. Another of this man's works had a mustache scrawled on it by Marcel Duchamp and is also called *La Gioconda*. For 10 points, name this Italian painter of a famous enigmatic smile in the *Mona Lisa*.
ANSWER: **Leonardo** da Vinci [or Leonardo **da Vinci**]

15. In World War I, this man served as chief of staff of the Rainbow Division. According to one of his aides, this man was "too busy" to receive orders not to chase the Bonus Army back across the Anacostia River. This man warned of the danger of a militarized China in a farewell address given after being fired as Commander of U.S forces during the Korean War. This general's most famous speech was given in Australia after being forced to evacuate from the Philippines. For 10 points, name this American general who vowed, "I shall return."
ANSWER: Douglas **MacArthur**

16. This figure's father lost his speech until he gave this figure his name, and this figure "jumped for joy" within his mother after she saw her cousin. Like Jesus, one of this man's early followers was the disciple Andrew, and while preaching, this man dined on locusts and wild honey. This man was killed after Salome performed for her stepfather, and her mother, Herodias, requested this man's head on a platter. For 10 points, name this New Testament figure who preached from the desert about the coming of his cousin Jesus.
ANSWER: Saint **John** the **Baptist** [or Saint **John** the **Baptizer** or **Yahya** or **Yokhanan**]

17. In one part of this work, Celia survives boiling and beheading because of her Christian faith. In another section of this work, Chanticleer tricks Reynard into letting him go. This work includes the story of Nicholas telling John the Carpenter about a flood to sleep with his wife Allison. In its first story, Arcite and Palomon fight over Emily. For 10 points name this work in which characters like the Manciple, Nun's Priest, Miller, and Knight tell stories while on a pilgrimage, a work of Geoffrey Chaucer.
ANSWER: The ***Canterbury Tales**

18. This composer repeated the "Promenade" theme in a suite inspired by his friend Victor Hartmann. This composer wrote a tone poem about a Witches' Sabbath led by Chernobog on St. John's Eve, which was orchestrated by his friend Rimsky-Korsakov. Along with Rimsky-Korsakov, Cui, Balakirev, and Borodin, he was the fifth member of the Mighty Handful of Russian composers. For 10 points, name this Russian composer of Night on Bald Mountain and Pictures of an Exhibition.
ANSWER: Modest **Mussorgsky**

19. This character laments that his "native hue of resolution is sicklied o'er with the pale cast of thought" and that "conscience does make cowards of us all." This character wishes that his "too too solid flesh would melt, thaw, and resolve itself into a dew!" after a ghost tells him to revenge his father's death. Later, this character murders Polonius while visiting his mother Gertrude. For 10 points, name this character who wonders "to be, or not to be," a prince of Denmark who names a Shakespearean tragedy.
ANSWER: Prince **Hamlet**

20. Parietal cells in this organ produce intrinsic factor to help absorb Vitamin B12. In response to distension of this organ, gastrin is released, and hydrochloric acid is a key ingredient in this organ's acidic juices. Infection by *Helicobacter pylori* (HEEL-ih-ko-BACK-tur py-LORE-eye) causes peptic ulcers in this organ, which produces chyme (KIME) that is sent into the small intestine. For 10 points, name this organ of the digestive system between the esophagus and small intestine.
ANSWER: **stomach**

1. This thinker focused on the sacred-profane dichotomy and discussed positive and negative cults in a work that argued the social origin of religion. In addition to writing *The Elementary Forms of Religious Life*, he analyzed the importance of interdependence in society, arguing that organic solidarity arises through division of labor. He noted that there are altruistic and anomic varieties to a certain phenomenon that occurs most frequently among unmarried, childless Protestant. For 10 points, name the author of *Suicide*.
ANSWER: Emile **Durkheim**

034-10-14-05121

2. Faa Di Bruno's Formula gives an explicit formula for one type of this operation. Operations of this type for a vector function form the entries of the Jacobian matrix, and operations of this type form the entries of the gradient. L'Hospital's Rule uses a quotient of these operations to calculate limits. For composite functions, this operation is applied using the chain rule. This operation finds the slope of a curve's tangent line, and is defined as the "limit as h goes to zero of 'f of x plus h' minus 'f of x', all over h." For 10 points, name this basic operation of calculus, the inverse of the integral.
ANSWER: **derivative**

028-10-14-05122

3. This operating system is based on Darwin, a flavor of BSD. This operating system includes the "Terminal" application, through which Unix commands may be entered into a command line. The visual interface of this operating system is called Aqua. Specific versions of this operating system include Tiger, Jaguar, and, most recently Snow Leopard. For 10 points, name this operating system found on Apple Computers.
ANSWER: Mac **OSX** [or Macintosh **Operating System Ten**; accept letter-by-letter pronunciations of "OSX"; accept pronunciations of "O-S-Ten"; prompt on **Mac OS**]

021-10-14-05123

4. This Supreme Court case overturned *Betts v. Brady*, which had established that a certain law only applied to capital cases. Abe Fortas represented the defendant in this case. The majority opinion by Hugo Black in this case agreed that the defendant's sixth amendment rights had been violated. Like *Miranda v. Arizona*, this case was heard by the Earl Warren court and helped to reform the criminal justice system. For 10 points, name this Supreme Court case that established a defendant's right to be provided with an attorney.
ANSWER: *Gideon v. Wainwright* [or *Wainwright v. Gideon*]

028-10-14-05124

5. This element is single-bonded to itself in hydrazine ("HIGH"-druh-zeen) and triple-bonded to carbon in cyanide. This element forms in the second of three steps of a cycle of stellar fusion reactions, and the oxide that this element forms when it takes a plus one charge is known as laughing gas. This element's diatomic form contains a triple bond. For 10 points, name this element whose diatomic form is the gas most prevalent in the earth's atmosphere.
ANSWER: **nitrogen** [or **N**]

022-10-14-05125

6. This nation established a system of "basic democracy" in 1962 based on the panchayat (pun-CHAI-yat) system of local government under King Mahendra. A Maoist insurgency led by a man known as Prachanda arose in this country in the 1990s. The king and queen of this nation were killed by Crown Prince Dipendra in 2001. For 10 points, name this Himalayan nation known for its Gurkha troops.
ANSWER: **Nepal**

030-10-14-05126

7. One of this author's poems notes that a "boy too far from town to learn baseball" could "do worse than be a swinger" of the title tree. Another of his poems takes place on "the darkest evening of the year" and ends with the narrator remembering he has "miles to go before I sleep." One of this author's character's claims that "Good fences make good neighbors." This author of "Birches" and "Stopping by Woods on a Snowy Evening" wrote that "two roads diverged in a yellow wood." For 10 points, name this poet who wrote "Mending Wall" and "The Road Not Taken."
ANSWER: Robert Lee **Frost**

8. In one of this composer's operas, the title character is inspired to pretend Donati is still alive when his daughter Lauretta sings *O mio babbino caro*. This composer of *Gianni Schicchi* (jee-ahn-ee shee-chee) also wrote an unfinished work in which *Nessun Dorma* is sung before Calaf answers three riddles. This composer wrote another opera in which Cio-Cio San (cho-cho san) kills herself over Lieutenant Pinkerton. For 10 points, name this Italian composer of *Turandot* and *Madame Butterfly*.
ANSWER: Giacomo Antonio Domenico Michele Secondo Maria **Puccini**

9. This man's teacher George Wishart (WIH-shart) was burned at the stake for heresy. This man's book *Faithful Admoninition* was written to English Protestants and called for the overthrow of ungodly rulers. This man also wrote the tract *First Blast of the Trumpet Against the Monstruous Regiment of Women*. This man's *Book of Common Order* advocated Presbyterian form of church governance. For 10 points, name this leader of the Reformation in Scotland.
ANSWER: John **Knox**

10. The value of this quantity for the change in volume of a gas is equivalent to the area under the curve on a P-V diagram, so at constant pressure this quantity equals "pressure times change in volume." The first law of thermodynamics sets change in internal energy equal to "heat added plus [this quantity]." Dividing this quantity by time yields power, and an important result of classical mechanics says that this quantity is equal to energy transferred. For 10 points, name this quantity measured in Joules and equal to force times distance.
ANSWER: **work**

1. Name these biomes.
[5] Antarctica can be put into this biome, characterized by its low rainfall, around less than ten centimeters per a year.
ANSWER: **desert**s
[10] Forests are separated from these biomes by the ecotone called the timberline. Colder than taigas, the lack of trees in them is caused by the low temperature.
ANSWER: **taiga**
[15] Its not a savannah, but this semi-arid climate is similar to a prairie. It is usually used to describe regions in Central Asia, where the "Great" one is.
ANSWER: **steppe**
[20] This aquatic biome is the zone consisting of the sediment at the bottom of the ocean floor, in which scavengers and detritus-feeders predominate.
ANSWER: **benthic** zone

2. He helped write the Charter 77 and described his time as a political prisoner in his *Letters to Olga*.
[5] Name this playwright and politician, the first president of the Czech Republic.
ANSWER: Vaclav **Havel**
[10] Havel's plays were banned in Czechoslovakia after this 1968 period of reform, instigated by Alexander Dubcek (DOOB-check), was suppressed by a Soviet invasion.
ANSWER: **Prague Spring** [or **Prazske jaro**]
[15] Havel took power after this 1989 revolution against the Communist government of Czechoslovakia, named for its non-violent nature.
ANSWER: **Velvet** Revolution [or **Sametová** revoluce]
[20] Earlier anti-Soviet leaders in Czechoslovakia included this man, who was killed in a suspicious fall from a window in 1948. His father Thomas was the first president of the country.
ANSWER: Jan **Masaryk**

3. These objects all have spin 1/2 and charge of either 2/3 or -1/3 times the charge of an electron.
[5] Name these smallest subatomic particles, whose name was coined by Murray Gell-Mann from a phrase in *Finnegan's Wake*.
ANSWER: **quark**s
[10] These particles are made of a quark and antiquark. They were first predicted by Hideki Yukawa and thought to mediate the strong force until the discovery of gluons.
ANSWER: **meson**s
[15] This quark is the most massive and has a lifetime of about ten to the negative twenty-third seconds; thus, evidence of its existence did not exist until 1995.
ANSWER: **top** quark
[20] This form of charge possessed by quarks and gluons and is determined by the non-Abelian SU(3) group. This charge has nothing to do with the observable property that it is named for.
ANSWER: **color** charge

4. Diana Moon Glampers kills the title character of this man's story "Harrison Bergeron."
[5] Name this American author, who wrote the novels *Player Piano* and *Breakfast of Champions*.
ANSWER: Kurt **Vonnegut**, Jr.
[10] This Vonnegut novel follows an optometrist named Billy Pilgrim, who is abducted by the Tralfamadorians during the firebombing of Dresden.
ANSWER: ***Slaughterhouse-Five**: or The Children's Crusade, a Duty Dance with Death*
[15] Much of what Vonnegut novel, which is named after a children's game, takes place on the island of San Lorenzo, where a religion named Bokononism is practiced? In this novel, the discovery of ice-9 threatens to freeze over the world's oceans.
ANSWER: ***Cat's Cradle***
[20] Give the symbolic name of the fictional town in New York where Billy Pilgrim works as an optometrist. Vonnegut slyly used this alternate name for ancient Troy in reference to the many upstate New York cities with classical monnikers.
ANSWER: **Ilium**

PLACES
THE LETTER W
RUNNING IN CIRCLES
HILLS

PLACES

[10] A "Place" named for this American fur baron and namesake of an Oregon town was the site of a New York City nativist riot.
ANSWER: John Jacob **Astor** [or **Astor** Place]

[10] This nation's "Weltpolitik" led it to seek a "place in the sun" in its colonial policies, which included its colonies in Kamerun and Togoland.
ANSWER: Federal Republic of **Germany** [or Bundesrepublik **Deutschland**]

[10] This Armenian-American author wrote the collection *Places Where I've Done Time* as well as the short story "The Daring Young Man on the Flying Trapeze."
ANSWER: William **Saroyan**

[10] This author told of a visit to the "Place of the Gods" in his short story "By the Water of Babylon" and also wrote *John Brown's Body* and "The Devil and Daniel Webster."
ANSWER: Stephen Vincent **Benet**

[10] This French mathematician names a partial differential equation for capillary pressure with Young, as well as transform similar to the Fourier transform.
ANSWER: Pierre-Simon, Marquis de **Laplace**

[10] This type of chemical reaction, also known as a metathesis reaction, involves the exchange of bonds between two chemical species.
ANSWER: **double replacement** reaction [or **double displacement** reaction; prompt on **replacement**; prompt on **displacement**]

[10] This American composer wrote "The Unanswered Question" and *Three Places in New England*.
ANSWER: Charles **Ives**

[10] This American architect created the PPG Place in addition to co-designing the Seagram Building with Ludwig Mies van der Rohe.
ANSWER: Philip Cortelyou **Johnson**

[10] The "Place of Fear," Xibalba, is the underworld in this mythology, which is recounted in the *Popul Vuh* and centers on the Hero Twins.
ANSWER: **Maya**n mythology

[10] This author of *People and Places* also wrote *Coming of Age in Samoa*.
ANSWER: Margaret **Mead**

026-10-14-0510-3

THE LETTER W

Note that the answer may not include the letter W.

[10] This author wrote *The Color Purple*.

ANSWER: Alice Malsenior **Walker**

[10] William Walker briefly took over this country with capital at Managua.

ANSWER: **Nicaragua**

[10] WIMPS are a candidate solution to this material that accounts for about 25% of the universe, yet is difficult to directly observe.

ANSWER: **dark matter**

[10] This american psychologist is associated with behaviorism and conducted the Little Albert experiment.

ANSWER: John Broadus **Watson**

[10] This German composer composed *The Valkyrie* and *Tannhäuser*

ANSWER: Richard **Wagner**

[10] This author wrote *The Picture of Dorian Gray* and *Lady Windermere's Fan*.

ANSWER: Oscar Fingal O'Flahertie Wills **Wilde**

[10] The letter W symbolizes this indole amino acid. A common misconception holds that the levels of this in Turkey cause people to get sleepy.

ANSWER: **Tryptophan**

[10] This Scott at achieved victory at the battle of Stirling Bridge.

ANSWER: William **Wallace**

[10] This female figure from the Bible conjure up the spirit of Samuel at the request of Saul.

ANSWER: **Witch of Endor**

[10] This American artists painted *Breezing Up* and *The Gulf Stream*.

ANSWER: Winslow **Homer**

RUNNING IN CIRCLES

[10] These diagrams, named for a nineteenth-century British logician, visualize where sets intersect with each other using overlapping circles.
ANSWER: **Venn** diagrams

[10] This British author described a juvenile delinquent who refuses to win a race in the story "The Loneliness of the Long-Distance Runner."
ANSWER: Alan **Sillitoe**

[10] In this war, one side was worried about possible subversion from groups such as the Copperheads and the Knights of the Golden Circle.
ANSWER: American **Civil** War [or **War Between the States**, etc]

[10] From July 6 to 14 each year, this capital of Navarre hosts the "enciero" festival, known in English as "the running of the bulls."
ANSWER: **Pamplona**

[10] Europa, Himalia, Io, and Callisto are among the moons circling what planet?
ANSWER: **Jupiter**

[10] In April 2010, Charlie Crist announced that he would run as an independent for the Senate seat from what state, where George LeMieux was previously appointed to fill the seat of the resigning Mel Martinez?
ANSWER: **Florida**

[10] Pheidippides ran 150 miles from the battlefield to Athens to announce the Greek victory over Persia at what 490 BCE battle?
ANSWER: Battle of **Marathon**

[10] A structure built in three concentric circles, called a tower of silence, is used to expose the dead to the elements in what dualistic religion, which originated in ancient Iran?
ANSWER: **Zoroastrianism**

[10] Carker runs away with Edith, and is then run over by a train, in *Dombey and Son,* a novel by what British author of *Nicholas Nickleby* and *The Pickwick Papers*?
ANSWER: Charles **Dickens**

[10] This painter of the Arena Chapel, who was one of the first to break away from medieval forms and presage the Renaissance, once drew a perfect circle for Pope Benedict IX to demonstrate his skills.
ANSWER: **Giotto** di Bondone

019-10-14-0510-3

HILLS

[10] Name the Revolutionary War battle that coined the phrase "Don't fire until you see the whites of their eyes," which was mainly fought on Breed's Hill.

ANSWER: Battle of **Bunker Hill**

[10] Name the group which fought in a namesake war against the English at the Battle of Majuba Hill, as well as at later battles around the turn of the twentieth century in South Africa.

ANSWER: **Boer**s

[10] What author wrote about the Bottom, a primarily black hillside community, in her novel *Sula* and about Pecola Breedlove in *The Bluest Eye?*

ANSWER: Toni **Morrison** [or Chloe Anthony **Wofford**]

[10] Name the collection of poems that starts out with "The Hill" and describes a community of small town people as written by Edgar Lee Masters.

ANSWER: *Spoon River Anthology*

[10] Name the area whose inner region is called the Hills cloud, and which is considered the source of long period comets.

ANSWER: **Oort Cloud**

[10] What long hills were created by the flow of glaciers and the accumulation of glacial till?

ANSWER: **drumlin**s

[10] Name the musical in which "the hills are alive with the" title entity and which concerns the von Trapp family.

ANSWER: The *Sound of Music*

[10] What mythological figure was condemned to forever roll a stone up a hill and then watch it roll back down?

ANSWER: **Sisyphus**

[10] Name the second largest city in Poland, whose Wawel Castle was built on its Wawel Hill.

ANSWER: **Krakow**

[10] Name the MTV show from which Lauren Conrad moved onto *The Hills* and which focused on teenagers living in the title Orange County community.

ANSWER: *Laguna Beach: The Real Orange County*

HSAPQ
High School Academic Pyramid Questions

1. The narrator of this novel dedicates his commencement address to the title character's father. That character later sleeps in the title character's bed to protect her from Wick Cutter. The title character works for the Harling family, and is later impregnated and abandoned by Larry Donovan. The protagonist ends up in a happy marriage with Anton Cuzak in this novel, which is set in Black Hawk, Nebraska. For 20 points, name this novel in which Jim Burden reunites with the title Bohemian girl, a work by Willa Cather whose title character has the surname Shimerda.
ANSWER: *My Ántonia*

034-10-14-05101

2. In this battle, the crucial Bar-le-Duc (bahl-luh-DUC) road becaem known as the "Sacred Way." Erich von Falkenhayn (EH-rik fohn FALK-un-hayn) masterminded one side's forces in this battle. The namesake fortification of this battle was established as a counterpart to the German stronghold at Metz. French troops at this battle were led by Philippe Petain. This battle took place along the Meuse river. For 20 points, name this World War I battle in which French troops, inspired by the cry, "They shall not pass," repelled a German offensive in 1916.
ANSWER: **Verdun**

030-10-14-05102

3. In one of this author's novels, the adopted son of Frederick Barbarossa describes searching for the legendary kingdom of Prester John to Niketas in Constantinople. In another of this author's novels, three bored editors use the computer Abulafia to devise a fake conspiracy about the Knights Templar, resulting in the murder of Jacopo Belbo. This author of *Baudolino* also wrote a novel about the friar William of Baskerville, who attempts to solve a series of murders in a fourteenth-century monastery. For 20 points, name this author of *Foucault's Pendulum* .
ANSWER: Umberto **Eco**

034-10-14-05103

4. This state was the site of the Brooks-Baxter War. This was the home state of the general known as the "Stonewall of the West," Patrick Cleburne (CLAY-burn). Samuel Curtis established Union control of this state near Elkhorn Tavern at the Battle of Pea Ridge. Winthrop Rockefeller was a governor of this state that attempted to desegregate this state's schools. For 20 points, what is this stat,e whose governor Orval Faubus opposed the integration of nine students at Central High in its capital?
ANSWER: **Arkansas**

015-10-14-05104

5. In the study of graphics, an object with this name functions as the complement to a raster. The Cauch-Schwarz inequality concerns the multiplication of two of these objects. The triangle inequality concerns the addition of these objects. These objects sum is found by the parallelogram rule. These generalizations of numbers are the inputs of a cross product and a dot product, and many of them feature x,y, and z components. For 20 points, name these quantities with a magnitude and direction, distinguished from scalars.
ANSWER: **vector**s

033-10-14-05105

6. One character in this epic spends thirteen years in exile after gambling away all his possessions and his wife in a game of dice with Shakuni. That character, Yudhisthira, becomes the emperor of the world after winning the Kurukshetra War. Attributed to Vyasa, this epic recounts the war between the Kauravas and the Pandavas, and contains the Bhagavad-Gita. For 20 points, name this Hindu epic poem.
ANSWER: the **Mahabharata**

7. This substance displays a Bennett pinch and will often obey the Carlqvist relation, and transverse ion waves named for Alfven occur in these materials. One special case of z-pinches in these materials is called a Birkeland current. These entities possess net positive layers called Debye sheaths, and an important temperature and density measure of these materials may be obtained by a Langmuir probe. For 20 points, name this phase exhibited by Tesla coils and lightning bolts, a partially ionized gas.
ANSWER: **plasma**

8. Grobert of Mirecourt invented a version of this instrument for one composer, who composed 43 Ghiribizzi for it. Ginastera's opus 47 is his only musical work for this instrument, which is accompanied by an orchestra in the monumental Concierto de Aranjuez. This instrument is closely related to the vihuela and hit a golden age between 1780 and 1850. Heavier than its baroque and flamenco counterparts, this instrument that is similar to the mandolin and lute is notably six-stringed. For 20 points, name this classical instrument popular in Spanish music.
ANSWER: classical **guitar**

9. The Nineteen Day Fast is a practice of this religion, and its calendar is divided into nineteen nineteen-day months. The Hands of the Cause of God are the successor's of Shoghi Effendi in this religion. Its supreme governing body is the Universal House of Justice and is located in Haifa, Israel. An offshoot of the teachings of the Bab, this religion was founded by Baha Ullah. For 20 points, name this religion that believes that the world's great religions are all manifestations of God.
ANSWER: **Bahai**

10. Two-time winners of this event include Harold Miner and Jason Richardson. Clyde Drexler entered this event five times without winning once. The 2008 winner of this event took off his jersey to reveal a Superman shirt and cape, but he was defeated in the 2009 finals by an alter ego known as "KryptoNate." For 20 points, name this NBA All-Star Weekend contest most recently won by Dwight Howard and Nate Robinson.
ANSWER: NBA **Slam Dunk** Contest [or Sprite **Slam Dunk** Showdown]

11. A process called ChIP (CHIP) employs these compounds to find DNA binding sites for a given protein. One region of these proteins undergoes isotype switching to produce the A, E, and G classes of these proteins. Their structure consists of a pair of heavy chains and a pair of light chains. They can be divided into polyclonal and monoclonal depending on how many objects they can bind to. For 20 points, name these gamma globulin proteins.
ANSWER: **antibodies** [or **immunoglobulin**s; or **Ig**]

12. This author wrote "there is neither East nor West, Border, nor Breed, nor Birth / When two strong men stand face to face, tho' they come from the ends of the earth!" in a poem asserting "East is East, and West is West, and never the twain shall meet." This author wrote a poem about a British soldier who tells a water-carrier "you're a better man than I am." For 20 points, name this British author who wrote about India in "Gunga Din."

ANSWER: Rudyard **Kipling**

1. One part of this work discusses "natural man," whose care for his own life does not concern this work's title figure. The bulk of this work is laid out in ten "considerations," one of which claims that pains and contrivances taken by wicked men will never be successful. This work attributes man's state on earth to the "mere pleasure" of God. A spider hanging by a thread over a fiery pit with God ready to cut the thread at any moment is one of this sermon's most famous images. For 10 points, name this sermon by Jonathan Edwards delivered first on July 8, 1741.
ANSWER: _**Sinners in the Hands of an Angry God**_

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2. Idmon joined this group although he knew it would lead to his own death. This group encountered the seer Phineus, whose food was eaten by Harpies until two members of this group, Calais and Zetes, drove them off. Heracles abandoned this group to search for Hylas, and Orpheus kept this group from being enticed by the sirens. Their leader, Jason, married Medea on their voyage back from Colchis. For 10 points, name this group of Greek adventurers, who set off in their namesake ship to find the Golden Fleece.
ANSWER: **Argonauts**

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3. This author's wrote a story about inhabitans of the title street of St. Petersburg. This author also wrote a short story about the insane Poprishchin. In addition to "Nevsky Prospect" and "Diary of a Madman," this writer wrote about Petrovich and "the person of consequence" who is unwilling to help with Akaky Akakievich's misfortune in his story "The Overcoat." He also told told of Pavel Chichikov's attempts to buy the legal rights to dead serfs in another of his novels. For 10 points, name this Russian author of *The Inspector General* and *Dead Souls*.
ANSWER: Nikolay **Gogol**

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