hsapq

1. This player's first coach, Jerry Glanville, said it would take a plane crash to have this man crack the Atlanta Falcons starting roster. Replacing Don Majkowski at his most famous team, he threw for four touchdowns in a 2003 game a day after his father died. Claiming to retire in 2008, he came back and played for both the Jets and the Vikings. For 15 points, name this man who spent over a decade as the quarterback for the Green Bay Packers and is the NFL's leader in touchdown passes.
ANSWER: Brett Lorenzo **Favre**

052-12-85-19101

BONUS: In December 2012, Typhoon Bopha killed 450 people in what country, prompting President Benigno Aquino to declare a "national calamity?"
ANSWER: Republic of the **Philippines** [or Republika ng **Pilipinas**]

019-12-85-1910-1

2. This artist depicted animals hovering behind a man with his head on his desk in the etching *The Sleep of Reason Produces Monsters*. The court painter to Charles IV, this artist painted a crazed god chomping on a headless child in *Saturn Devouring his Son*. This artist of the *Black Paintings* also painted clothed and naked versions of the "maja." For 15 points, name this Spanish artist who painted Napoleonic troops shooting an unarmed man in *The Third of May, 1808*.
ANSWER: Francisco **Goya**

015-12-85-19102

BONUS: Name the objects which were first classified into multiple divisions by Giovanni Cassini, after Galileo and Huygens had earlier observed them.
ANSWER: **Saturn's ring**s [do not prompt on or accept "Saturn"]

020-12-85-1910-1

3. This scientist names a type of reflecting telescope with a concave primary mirror and flat diagonal secondary mirror and was the first fully functional one. One law named for this man has a proportionality constant that was measured with a torsion balance by Cavendish. That law governs a solely attractive inverse-square force. Another of his results states that force is equal to mass times acceleration. For 15 points, name this man who outlined three laws of motion in his *Principia Mathematica*.
ANSWER: Isaac **Newton**

048-12-85-19103

BONUS: Name the musician who included three different songs with Greek letters in their titles on her 2011 album *Halfaxa* and received widespread critical acclaim for her 2012 release *Visions.*
ANSWER: **Grimes** [or Claire **Boucher**]

019-12-85-1910-1

4. This man founded a law practice with Oliver Tambo and delivered the "I Am Prepared to Die" speech during the Rivonia Trial. For his activities as a leader of the Spear of the Nation, he was imprisoned at Robben Island. This man established the Truth and Reconciliation Commission to investigate human rights abuses under a certain policy. In the 1990s, his negotiations with F.W. de Klerk successfully ended apartheid. For 15 points, name this first black president of South Africa.
ANSWER: Nelson Rolihlahla **Mandela**

014-12-85-19104

BONUS: Cities such as Brownsville, Matamoros, Ciudad Juarez (SEE-oo-dod WAH-rez), and El Paso sit along what river?
ANSWER: the **Rio Grande**

019-12-85-1910-1

5. One component of this pathway, cytochrome oxidase, holds an O2 molecule at its iron-copper active site until it is reduced and turned into water. In this pathway, an enzyme with F0 and F1 components has a rotor powered by the movement of protons through a membrane. This pathway makes use of the NADH and succinate produced by the citric acid cycle, producing 34 molecules of ATP. For 15 points, name this pathway, a part of cellular respiration that produces ATP through the movement of negatively-charged particles.
ANSWER: the **electron transport chain** [prompt on cellular **respiration**]

080-12-85-19105

What French existentialist defined the "bad faith" principle in his *Being and Nothingness?*
ANSWER: Jean-Paul **Sartre**

192-12-85-1910-1

6. This character speaks with unusual affection to his mentor Brunetto Latini, and his companion protects him from Malacoda. Later in his narrative, he describes a man who holds his severed head in front of him like a lantern named Bertran de Born. Initially pursued by a leopard, a lion, and a she-wolf, this character is guided by Beatrice through Paradise after traversing Purgatory and Hell with Virgil. For 15 points, name this protagonist and author of *The Divine Comedy.*
ANSWER: **Dante** Alighieri [or Dante **Alighieri**]

014-12-85-19106

BONUS: What religious figure's nature, or possible dual nature, was the subject of the Nestorian, Monophysite, and Arian heresies?
ANSWER: **Jesus** Christ of Nazareth [or Jesus **Christ**]

104-12-85-1910-1

7. This President allegedly had an African-American ancestor according to William Chancellor. As President, this man established the Bureau of Veteran Affairs in addition to releasing Eugene Debs from prison. This man campaigned on the promise of a "return to normalcy." His presidency was hurt by Albert Fall's leasing of oil reserves in the Teapot Dome Scandal. For 15 points, name this President who came into office after World War I and Woodrow Wilson.
ANSWER: Warren Gamaliel **Harding**

149-12-85-19107

BONUS: What type of program translates source code into machine code, which can be understood by a computer?
ANSWER: **compiler**

140-12-85-1910-1

8. Odysseus's oratory helped him win a contest over the armor of this man, which caused Ajax to go mad. Odysseus earlier finds him disguised as a girl in the court of Lycomedes (LIE-co-MEED-eez) on Skyros. He refuses to fight after Agamemnon takes his prisoner Briseis. This man becomes enraged at the death of his friend Patroclus, who fights in his armor. He is killed when Paris shoots an arrow into his heel. For15 points, name this greatest of the Greek warriors in the Trojan War.
ANSWER: **Achilles**

015-12-85-19108

BONUS: This is a 20-second calculation question. Solve for x in 3*log(2)-log(4^2) = log(x).
ANSWER: **1/2**

9. The majority of the standard array of these things were developed by Maurice Hilleman. Max Theiler remains the only person to win a Nobel for developing one of these things. The development of the most successful of these saw a little boy variolated after being injected with pus from a milkmaid's blisters. That one was developed by Edward Jenner using what we now know to be cowpox. For 15 points, identify these things used to confer immunity to infectious agents and which include the smallpox one.
ANSWER: viral **vaccine**s

BONUS: This is a 20-second calculation question. Equilateral triangle ABC is inscribed in a circle with center at O. What is the measure of angle AOC?
ANSWER: **120** degrees

10. This man lent his name to a group of Weimer (VYE-mar) era dissidents led by Rosa Luxemburg. This man and his lieutenants Oenomaus (ee-nuh-MAY-us) and Crixus escaped one trap by climbing down Mount Vesuvius with ropes made from vines. His followers were betrayed by Cilician pirates and were crucified along the Appian Way after being routed by the forces of Marcus Licinius Crassus. For 15 points, name this leader of the Third Servile War, a gladiator who led a rebellion against Rome.
ANSWER: **Spartacus**

BONUS: What soccer goalie plays on the Seattle Sounders Women and competes on *Dancing with the Stars* when not playing on the US national team?
ANSWER: Hope **Solo**

11. Certain verbs in this tense are pronounced as if the second accent ague (ahg-YOO) is an accent grave (GROV), though usually they are not written to reflect the change. Verbs which become irregular in this tense include "pleuvoir," which becomes "il pleuvra." In regular verbs, this tense is formed by taking the infinitive as a stem and adding the endings "ai," "as," "a," "ons," "ez," or "ont." For 15 points, name this French verb tense, used to refer to actions that will happen after the present.
ANSWER: French **future** tense [or le **futur**]

BONUS: Six, twenty-eight, and four-hundred ninety-six are the first three examples of what kind of number equal to the sum of its positive divisors, excluding itself?
ANSWER: **perfect** numbers

12. Proteins are brought from the cytoplasm into this organelle by the TIM and TOM translocases. This organelle has both outer and inner membranes, the latter of which has increased surface area due to folds called cristae. This organelle possesses its own DNA, which is inherited from the mother, and which leads biologists to theorize it was originally a bacterium taken into the cell through endosymbiosis. For 15 points, name this organelle where most of respiration takes place, making it the "powerhouse of the cell."
ANSWER: **mitochondrion** [or **mitochondria**]

BONUS: This is a 30-second calculation question. A circle has diameter 40 centimeters. What is the length of the arc subtended by a central angle of 45 degrees? Express your answer in terms of pi.
ANSWER: **5 pi** centimeters

13. This man wrote about the detective Christopher Banks searching for his parents in Shanghai in *When We Were Orphans.* In another work, this man created the Hailsham students Ruth, Kate, and Tommy, who are clones raised for their organs. One of this author's protagonists is never able to express his love for Miss Kenton, with whom he works in the household of Lord Darlington. For 15 points, name this Japanese-born British author of *Never Let Me Go* who created the butler Stevens in *The Remains of the Day.*
ANSWER: Kazuo **Ishiguro**

BONUS: This is a 20-second calculation question. If there is a 20% chance of rain on Saturday, and independently there is a 10% chance of rain on Sunday, what is the probability that it does not rain either day?
ANSWER: **72%** [or **18/25**; or 0.**72**]

14. The Lorentz gamma contains the square of this constant in the denominator. This constant is equal to one over the product of the square root of the permittivity and permeability of free space. The square of this quantity serves as the proportionality constant between mass and energy, and special relativity posits it as a universal speed limit. For 15 points, name this constant equal to approximately three times ten to the eight meters per second, symbolized c.
ANSWER: **speed of light** [or **c** before mentioned]

BONUS: What German-language poet wrote *The Sonnets to Orpheus* and the *Duino Elegies*?
ANSWER: Rainer Maria **Rilke**

15. In one of this man's works, a character teaches a slave geometry to prove that learning is only recollection. Characters try to define virtue in that work, the *Meno.* He described people chained so that they could only see shadows reflected on a wall in his Allegory of the Cave in another work. This man developed the Theory of Forms, the highest of which was the Good, which he describes in *The Republic.* For 15 points, name this student of Socrates.
ANSWER: **Plato**

BONUS: What type of cloud, with a characteristic anvil-shaped appearance, can evolve into supercells and form squall lines?
ANSWER: **cumulonimbus**

16. The protagonist of this novel has dreams about a place called the Golden Country. He wakes up from one such dream with the word "Shakespeare" on his lips before participating in the Physical Jerks. The protagonist receives a note from a girl containing the message "I love you," and implicates that character after being threatened with a cage full of rats in Room 101. For 15 points, name this novel in which Julia and Winston Smith betray each other to the Party, a work of George Orwell.
ANSWER: ***Nineteen Eighty-Four***

BONUS: What doctrine, introduced in 1823, asserted that no foreign power could colonize North or South America without a response from the United States?
ANSWER: **Monroe** Doctrine

17. This instrument plays a C-major chord to introduce the Maestoso of the third symphony by Camille Saint-Saens, to which it gives the nickname. A gigantic version of this instrument is found in London's Royal Albert Hall. Many chorale preludes were written for this instrument by J. S. Bach, who also wrote a famous *Toccata and Fugue in D Minor* for it. For 15 points, name this keyboard instrument, frequently employed in church music, that makes use of a bellows and a series of pipes.
ANSWER: pipe **organ**

BONUS: What Greek god killed three of the Cyclopes in revenge for the death of his son Asclepius and slaughtered the children of Niobe with his sister Artemis?
ANSWER: **Apollo**

18. The perpetrator of this event was initially arrested for killing J.D. Tippitt. Abraham Zapruder supplied the best known film of this event, in which Governor John Connally was wounded. Jack Ruby fatally shot the man responsible for this event, which was the focus of the Warren Commission. This shooting is believed to have occurred from the sixth floor of the Texas School Book Depository. For 15 points, name this November 22, 1963, event that resulted in the death of the 35th US President.
ANSWER: **assassination** of **J**ohn Fitzgerald **Kennedy** [or **assassination of JFK**; accept other words for "assassination" such as **killing**; prompt on **assassination of Kennedy**]

BONUS: Name the 2012 Best Picture nominee in which George Clooney plays a Hawaiian lawyer dealing with the consequences of his wife's death.
ANSWER: *The **Descendants***

19. In this work, one character shoos away her children and attempts to decorate a Christmas tree after being confronted about how she forged her father's signature to finance a trip to Italy for her husband's health. In this play, a reunion with Christine Linde persuades Nils Krogstad not to blackmail the protagonist's husband, Torvald. This play ends with the protagonist slamming the door on her husband and children. For 15 points, name this play about Nora Helmer written by Henrik Ibsen.
ANSWER: *A **Doll House*** [or *A **Doll's House***; or *Et **Dukkehjem***]

BONUS: What Incan ruler defeated his brother Huascar in a civil war only to be conquered by the forces of Francisco Pizarro?
ANSWER: **Atahualpa**

20. This poet wrote that "Not all the vats upon the Rhine yield such an alcohol!" in a work which begins "I taste a liquor never brewed." Her work was published by her friend Thomas Wentworth Higginson. One of her poems begins, "I'm nobody! Who are you? Are you nobody, too?" This poet wrote, "The carriage held but just ourselves - and immortality" in a poem which begins, "Because I could not stop for Death." For 15 points, name this reclusive New England poet.
ANSWER: Emily **Dickinson**

BONUS: Which tsar of Russia was assassinated by the People's Will and emancipated the serfs?
ANSWER: **Alexander II** of Russia [or **Aleksandr Nikolayevich**]

21. In one poem, this author idealizes those who can dream and not make dreams their master. He also wrote about the son of an orphaned Irish soldier who helps his mentor find the River of the Arrow. This author of *Kim* and "If--" wrote a short story in which the protagonist protects Teddy and his family by killing Karait and thwarting Nagaina's murderous plot. For 15 points, name this British author who wrote about Rikki-Tikki-Tavi and Mowgli in *The Jungle Book.*
ANSWER: Rudyard **Kipling** [or Joseph Rudyard **Kipling**]

BONUS: What jazz trumpeter sang "Hello, Dolly!" and was nicknamed Satchmo?
ANSWER: Louis **Armstrong**

22. For this disease to spread, affected cells synthesize bFGF and VEGF to cause uncontrolled angiogenesis. This disease can be caused by an overactive *ras* gene, whose resultant cascade can override the action of the p53 gene. This disease is caused by carcinogens, can metastasize to different organs, and is caused by mutations disrupting the cell cycle. For 15 points, name this disease characterized by out-of-control cell growth that results in malignant tumors.
ANSWER: **cancer** [or specific types, such as lung **cancer**; breast **cancer**; kidney **cancer**; etc.]

BONUS: In paintings like *Golconda* and *The Son of Man*, Rene Magritte painted men wearing what kind of headgear?
ANSWER: **bowler hat** [or **coke hat**; or **derby**; or **billycock**; or **bombin**; prompt on **hat**]

23. In this work, the ship *Demeter* come into harbor with no one but the dead captain on board, and children are attacked by the "Bloofer Lady." One character in this work, Dr. Seward, runs an insane asylum, which houses Renfield, and he proposes marriage to Lucy Westenra. This novel opens with Jonathan Harker, fiancée of Mina Murray, traveling through the Carpathian Mountains to the home of the title character. For 15 points, name this vampire novel by Bram Stoker.
ANSWER: ***Dracula***

BONUS: What Representative of California's 8th district has served as House Minority Leader since 2011?
ANSWER: Nancy **Pelosi** [or Nancy Patricia **D'Alesandro**]

24. At St. Augustine's Church, this organization initiated its Free Breakfast for Children program. One leader of this organization described how he raped women as an act of rebellion in his book *Soul on Ice*. This group used the phrase "What We Want What We Believe" to preface their Ten-Point program. This organization was led for a time by Eldridge Cleaver and was founded by Huey Newton and Bobby Seale in Oakland. For 15 points, name this radical black nationalist organization.
ANSWER: **Black Panther** Party for Self-Defense

BONUS: Name the value given by multiplying a number by all the positive numbers before it, which is symbolized by an exclamation point.
ANSWER: **factorial**

25. The most common representation of these numbers always normalizes the first bit to one, negating the need to store it and providing an extra bit of precision. That representation allows these numbers to be represented with a sign, exponent and mantissa, comes in single, double and quad-precision formats and is the IEEE 754 standard. Missing entries in the lookup table of the Pentium 5 FPU caused division of these numbers to produce incorrect results. For 15 points, identify this representation of real numbers on computers, whose data type is commonly "float."
ANSWER: **floating-point** numbers [or **float**s before "float" is read]

BONUS: Domenichino may have plagiarized the design for his altarpiece depicting *The Last Communion* of what saint, who is often painted "in his study?"
ANSWER: Saint **Jerome** [or Eusebius Sophronius **Hieronymus**]

26. In this novel, Nurse Duckett's relationship with the protagonist hurts her relationship with Nurse Cramer. The protagonist of this novel uses a parachute to cover the deep wounds of Snowden. All of Egypt's cotton is purchased by Milo Minderbinder's company in this novel. Other characters in this novel include Major Major Major Major. For 15 points, identify this novel about the pilot Yossarian, who faces the title paradoxical situation, written by Joseph Heller.
ANSWER: *Catch-22*

189-12-85-19126

BONUS: What religion is divided into "sky-clad" and "white-clad" sects and was founded by the last tirthankara (TERT-unk-ah-ruh), Mahavira?
ANSWER: **Jain**ism

121-12-85-1910-1

27. In meteorology, when this phenomenon is perpendicular to isolines, the greatest advection occurs. The Beaufort scale is used to characterize this phenomenon. Transport that occurs via this process is called aeolian, which can create loess. The speed of this phenomenon can be measured with an anemometer. For 15 points, identify this flow of air between areas of different pressure, caused by the uneven heating of the Earth.
ANSWER: **wind**

066-12-85-19127