## hsapq

1. The emission line of one form of this element, first detected by Harold Ewen and Edward Purcell using a horn antenna, is sometimes called the hyperfine line and occurs at 21 centimeters. The reionization of the universe typically refers to the reionization of this element. When the supply of this element is depleted in a main sequence star, it (*) expands to a red giant. The CNO cycle is one fusion reaction in which stars convert this element to helium. For 10 points, name this most abundant element in the universe.
ANSWER: hydrogen
066-12-53-04102
2. He's not Bizet, but one of his works with a section titled "Habanera" is his Rapsodie espagnole ("Rhapsody" es-pa-NYOHL). This man reacted to a performance of one of his works by remarking that the title was not Dead Pavane for a Princess but Pavane for a Dead Princess. His other piano works include Gaspard de la nuit (gas-PAHR de la NWEE) and Mother (*) Goose. A work by this man commissioned by Ida Rubinstein is best known for its snare-drum ostinato. For 10 points, name this composer of Bolero.
ANSWER: Joseph-Maurice Ravel
088-12-53-04103
3. After false rumors of this emperor's death, Avidius Cassius usurped the throne. This husband of Faustina the Younger co-ruled for a time with Lucius Verus. This man's son and successor enjoyed competing in gladiatorial contests and was strangled by the wrestler Narcissus. This emperor wrote a work in (*) Greek based on the thoughts of Epictetus. The last of the "Five Good" emperors, for 10 points, name this father of Commodus and Stoic philosopher who wrote the Meditations.
ANSWER: Marcus Aurelius [or Marcus Aurelius Antoninus Augustus; or Marcus Annius Verus]
052-12-53-04104
4. One national park near this city contains the oldest Japanese tea garden in the U.S. A stretch of this city's Russian Hill contains Lombard Street. This city also includes Nob and Telegraph Hills. This city, whose neighborhoods include (*) Haight-Ashbury and Castro, contains one end of the Bay Bridge, which links it to Oakland. Off the coast of this city is a prison known as "The Rock." For 10 points, name this city in California, home to Alcatraz and the Golden Gate.
ANSWER: San Francisco
020-12-53-04105
5. Allen Pinkerton protected this man from the Baltimore Plot. A key event in this man's election to his highest office was his delivery of the Cooper Union Address. The capture of James Mason and John Slidell from the RMS Trent took place during this man's term in office. His death came during ${ }^{(*)}$ Our American Cousin at Ford's Theater. For 10 points, name this sixteenth President of the U.S. who was assassinated by John Wilkes Booth.
ANSWER: Abraham Lincoln
6. In one novel by this author, Maurice Spandrell is shot dead, and the author represents himself as Philip Quarles. The College of Emotional Engineering is headed by Helmholtz Watson in another novel by this author, who scribbled a note for one hundred micrograms of LSD on his deathbed. He wrote a novel in which (*) Lenina Crowne loves Bernard Marx and vaccinates children born from the Bokanovsky Process. This author of Point Counter Point described a society rejected by John the Savage. For 10 points, name this British author of the dystopian novel Brave New World.
ANSWER: Aldous Leonard Huxley
020-12-53-04107
7. This fighter faced Chael Sonnen in 2010, where a triangle choke prevent a likely decision loss. His first UFC win came against Chris Leben, and he won the PRIDE Weltweight belt by beating Dan Henderson with a rear naked choke in 2008. This fighter won his current title after breaking Rich (*) Franklin's nose with a knee; he has since defended his title successfully a record nine straight times. For 10 points, name this Brazilian UFC fighter nicknamed "The Spider," the current Middleweight champion. ANSWER: Anderson da Silva

088-12-53-04108
8. In one section of this work, one character describes her father as an "angel man" and another repeats the phrase 'a hot thing." Those characters are the sisters of Howard and Buglar, who ran away from the central location shortly before the death of Baby (*) Suggs. In a climactic flashback, the "four horsemen" show up at 124 , led by "schoolteacher." In this novel, the title character returns as a ghost after being killed by Sethe (SEE-thee) in order to spare her from slavery. For 10 points, name this novel by Toni Morrison.
ANSWER: Beloved
142-12-53-04109
9. Along with a man who names an exponential thermodynamic weighting factor, this man names a probability distribution for the speeds of gas particles. He proposed a thought experiment in which particles are sorted based on their temperature. This man predicted the existence of light waves long before they were observed. His (*) "demon" would violate the second law of thermodynamics. For 10 points, name this man who formalized classical electromagnetism with his four namesake equations. ANSWER: James Clerk Maxwell

132-12-53-04110
10. In County of Allegheny v. ACLU, the Supreme Court held that publically displaying these did not violate the Establishment Clause. Scripture states that this object's design should be based on the blossoms of the almond tree. Maulana Karegna based the design of the kinara, for Kwanzaa, on one of these objects. These objects consist of one high $\left(^{*}\right.$ ) branch called the "shamash," and a series of lower branches which represent the miracle of one day's worth of oil lasting for eight days. For 10 points, name this eight-branch lamp which is lit one day at a time during Hanukkah.
ANSWER: menorah [or Hannukiah; or menorot]
015-12-53-04111
11. In one part of this work, the feisty Friar John wields a cross as a scythe to defeat the invasion of the evil king Picrochole. Another character in this work looks for a magical bottle to divine whether or not he should marry. The second title character of this work befriends the dissolute Panurge. The author of this work inserts himself as (*) "Alcofribas Nasier," who encounters a son of Grandgousier (gran-GOO-see-ay) who devours hundreds of thousands of cows. For 10 points, name this series about a pair of giants by Francois Rabelais.
ANSWER: Gargantua and Pantagruel [or Gargantua before "bottle" is read]
12. Retroactive interference makes these entities harder to access. The availability heuristic is used to determine which ones are most important. One researcher who studied their duration using nonsense syllables was Herman Ebbinghaus. George Miller said that seven (*) plus or minus two was the magic number for the "working" variety of them. The "flashbulb" type of these entities have increased strength. For 10 points, name these mental phenomena, which come in "long term" and "short term" varieties and are lost in amnesia.
ANSWER: memories
080-12-53-04113
13. Dewar flasks are often used to prevent this quantity's transmission. At constant pressure, this value is equal to enthalpy. For a reversible process, the change in this quantity over temperature is the change in entropy. Diathermic processes allow the exchange of it, but (*) adiabatic processes do not. The internal energy is this quantity plus work. It can be found by multiplying mass and the change in temperature by its namesake capacity. For 10 points, name this quantity symbolized q, a form of energy transferred during thermodynamic processes.
ANSWER: heat [prompt on $\mathbf{q}$ before mention; prompt on energy]
020-12-53-04114
14. This artist discussed the three major elements of painting in Point and Line to Plane and compared the title entity to a pyramid in Concerning the Spiritual in Art. Ravine and Sea Battle are two of this man's abstract "Improvisations," and he also created a series of paintings he titled "Compositions." This artist and Franz Marc founded a group named after a painting by this man in which a man wearing a cloak of the title (*) color is perched atop a white horse on a hillside. For 10 points, name this Russian artist and art theorist who painted The Blue Rider.
ANSWER: Wassily Kandinsky
15. Ernst Mayr (MY-err) developed the modern definition of this process in a 1942 work.

Cladogenesis is one type of this process. One form of this process results in endemic organisms caused by habitat islands. Polyploidy and hybridization are instant forms of this process. This process is complete when two populations come in contact and have no gene flow due to reproductive ${ }^{*}$ ) isolation. This process can be sympatric, allopatric, or parapatric. For 10 points, name this evolutionary process that creates a new group of organisms.
ANSWER: speciation [accept formation of new species or phrases with similar meaning until the giveaway is read]

124-12-53-04116
16. This city's Funky Butt Club was named after the signature piece of an early musician here, Buddy Bolden. Its pleasure district, Storyville, was where musicians like Jelly Roll Morton got their start. Another musician born here pioneered (*) "scat singing" and sang about "skies of blue and red roses too" in "What a Wonderful World." For 10 points, name this birthplace of Louis Armstrong, a Louisiana melting pot where jazz developed.
ANSWER: New Orleans, Louisiana
17. Watchmaker Robert Hubert was killed after claiming to have started this event. This event was fueled by the failure of Lord Mayor Thomas Bloodworth to authorize proper demolition methods. It occurred a year after a plague struck the same city and was described in the diary of Samuel Pepys ('PEEPS'). Christopher Wren led a (*) reconstruction project after St. Paul's Cathedral was destroyed during it. For 10 points, identify this 1666 conflagration which destroyed much of the English capital. ANSWER: Great Fire of London [accept synonyms]

052-12-53-04118
18. The builders of Asgard were offered this deity's hand as a reward. This deity, who alone poured ale for the giant Hrungnir (huh-ROONG-neer), rides the boar Hildesvini (hill-des-VEE-nee). Thor impersonated this lover of Ottar to recover his hammer Mjollnir (mee-YOL-neer), and Loki once borrowed this figure's cloak of feathers. Half of all slain warriors go her hall of Folkvangr (FOLK-vang-er). This daughter of Njord (nee-YORD) rides in a chariot pulled by (*) cats and owns the necklace Brisingamen (bris-in-GAH-men). For 10 points, name this Norse goddess of love and beauty. ANSWER: Freya [or Freyja; do not accept Frey; do not accept Freyr; do not accept Frigg; do not accept Frigga]

079-12-53-04119
19. One character in this novel breaks the nose of another character for shouting his wife's name. This novel's title character is cheated out of the inheritance left him by the mining tycoon Dan (*) Cody. The title character of this novel takes the blame for his love interest fatally running over Myrtle Wilson. The title character is shot dead in the swimming pool of his mansion, where he throws lavish parties in the hopes of meeting Daisy Buchanan. For 10 points, name this novel narrated by Nick Carraway and written by F. Scott Fitzgerald.
ANSWER: The Great Gatsby
014-12-53-04120
20. On one anniversary of this event, a meeting at Faneuil Hall called for the impeachment of Richard Nixon. The organization that perpetrated this event had earlier been attacked at the Battle of Golden Hill. The perpetrators of this event met at the Old South Meeting House and boarded the Dartmouth dressed as (*) Mohawks. This event led to the passage of the first of the Intolerable Acts. For 10 points, identify this 1773 event in which the Sons of Liberty threw some cargo into a harbor. ANSWER: Boston Tea Party

048-12-53-04121
21. This structure is positioned over a defect in an "overriding" condition that is part of the Tetralogy of Fallot (fuh-LOW). The tunica (TOO-nih-kah) adventitia (ad-ven-TEE-she-uh), tunica media, and tunica intima are the three layers of its wall. It narrows where the ductus arteriosus (ar-tee-ree-OH-sus) inserts in coarctation (koh-ahr-TAY-shun). The brachiocephalic (brah-kee-oh-seh-FAH-lick), two subclavian, and two (*) carotid arteries extend from this structure. This structure splits off into two arteries in the abdomen and rises from the left ventricle. For 10 points, name this largest artery in the body.
ANSWER: aorta
020-12-53-04122
22. Mr. Losberne saves the protagonist of this novel by lying to the policemen Duff and Blathers. The protagonist fights Noah Claypole to defend his mother's name, incurring the wrath of his employer, the undertaker Mr. Sowerberry. After Nancy reveals the villain's schemes, she is brutally murdered by her lover Bill (*) Sikes, who hangs himself afterwards. After meeting the Artful Dodger, this novel's title character works as a pickpocket for Fagin. For 10 points, name this Charles Dickens novel about an orphan.
ANSWER: Oliver Twist
015-12-53-04123
23. During the Olympics in this city, Mark Spitz set seven world records and won as many gold medals. This city is the namesake of a 1938 agreement that prompted Neville Chamberlain to say "peace for our time" had been achieved after allowing the Sudetenland to be annexed. In this city, a group called Black September kidnapped or killed 11 Israeli (*) athletes during the 1972 Summer Olympics. For 10 points, name this capital city of Bavaria in Germany. ANSWER: Munich [or München]

1. David Halberstam's The Best and the Brightest analyzed how the poor planning of "whiz kid" advisers helped lead to this war. For 10 points each:
[10] Name this Southeast Asian conflict. In the 1960's, the United States intervened in this conflict to prevent the region from falling to communism.
ANSWER: Vietnam War
[10] After an attack on two United States destroyers, Congress passed this resolution, which allowed Lyndon Johnson to wage "conventional" war in Vietnam.
ANSWER: Gulf of Tonkin Resolution
[10] In 1968, the Charlie Company under William Calley committed this atrocity, in which 300 residents of a Vietnamese village were gruesomely murdered.
ANSWER: My Lai Massacre
080-12-53-04201
2. Name the following about American sculptures, for 10 points each:
[10] This bronze sculpture by Frederic Remington shows the title cowboy with a hand full of the hair of a horse as he tries to subdue it. The Rough Riders presented it as a gift to Theodore Roosevelt.
ANSWER: Bronco Buster
[10] The Avenue of Flags leads viewers to this sculpture carved into the Black Hills of South Dakota. The likeness of Jefferson was originally supposed to be on Washington's right side but was completed on Washington's left side.
ANSWER: Mount Rushmore National Memorial
[10] This man supervised the creation of Mount Rushmore and Stone Mountain. His sculptor The Aviator is located at the University of Virginia.
ANSWER: Gutzon Borglum
030-12-53-04202
3. After the Siege of Halicarnassus, this ruler restored Ada of Caria to the throne of that city. For 10 points each:
[10] Name this great king of Macedonia who was tutored by Aristotle.
ANSWER: Alexander the Great [or Alexander III of Macedon]
[10] Alexander was the son of this man, who created the League of Corinth before his assassination by Pausanias.
ANSWER: Philip II of Macedonia [prompt on Philip]
[10] Alexander defeated a Persian ruler of this name at the Battles of Issus and Gaugamela. Another Persian ruler of this name had his invasion of Greece ruined by the Battle of Marathon.
ANSWER: Darius III [or Darius I; or Darius the Great]
4. Answer the following about the Curies, For 10 points each:
[10] Marie and Pierre Curie were responsible for the discovery of this element, along with polonium. ANSWER: radium
[10] The Curie point is the temperature at which ferromagnetic materials become this type of magnetic material.
ANSWER: paramagnetic [accept word forms]
[10] Pierre and Jacques Curie discovered this effect, which was the basis for the Curie electrometer Marie Curie used to detect radiation. Its first important commercial use was in sonar and it occurs in quartz crytals.
ANSWER: piezoelectric effect [accept word forms]
5. This novel begins when the protagonist learns that she is the executor of Pierce Inverarity's estate. For 10 points each:
[10] Name this novel in which Oedipa Maas believes she is in the center of a conspiracy concocted by the mysterious organization called the Tristero.
ANSWER: The Crying of Lot 49
[10] The Crying of Lot 49 was written by this postmodern American novelist of Gravity's Rainbow.
ANSWER: Thomas Pynchon
[10] In The Crying of Lot 49, Lot 49 of Inverarity's estate is a set of these items.
ANSWER: postage stamps

014-12-53-04205
6. For 10 points each, answer the following about defense mechanisms.
[10] Defense mechanisms are part of the psychology of this man who developed the Oedipus complex and wrote The Interpretation of Dreams.
ANSWER: Sigmund Freud
[10] This simplistic defense mechanism involves taking one's own faults and attributing them to other people.
ANSWER: projection [or obvious equivalents]
[10] This more advanced defense mechanism involves transforming drives that would be considered inappropriate to actions that are considered appropriate.
ANSWER: sublimation [or obvious equivalents]
7. This man published a 2001 opinion piece attacking "Big Pharma" as part of a publicity campaign for his novel The Constant Gardener. For 10 points each:
[10] Name this author who chronicled the psychological deterioration of Magnus Pym in his
semi-autobiographical novel, A Perfect Spy, and novelized his reaction to the exposure of the Cambridge Five in Tinker, Tailor, Soldier, Spy.
ANSWER: John le Carre [or David John Moore Cornwell]
[10] This 1963 le Carre novel about Alec Leamas's attempt to expose Hans-Dieter Mundt as a British double agent criticized the morals and ethics of Western espionage tactics.
ANSWER: The Spy Who Came In From the Cold
[10] A 2003 essay by le Carre, "The United States has gone mad," argued that the justification for this war was "one of the great public relations conjuring tricks of history."
ANSWER: Iraq War [or Second Persian Gulf War; or obvious equivalents mentioning war in Iraq]
8. Human blood is an example of one of these solutions, as a large change in acidity will change the concentration of carbon dioxide that can be dissolved in it. For 10 points each:
[10] Name these solutions consisting of a weak acid and its conjugate base or vice versa that resists changes in pH .
ANSWER: buffer solutions
[10] If the ratio of the acid to its conjugate base is known, this equation can be used to find the pH . This equation states that the pH equals the negative logarithm of the acid dissociation constant plus the logarithm of the ratio of the conjugate base to the acid.
ANSWER: Henderson-Hasselbalch equation
[10] The buffer solution will be most resistant to changes in pH if the ratio of conjugate base to acid is this value. When the ratio has this value, the pH of the solution is equal to the negative logarithm of the dissociation constant of the acid.
ANSWER: 1
121-12-53-04208
9. The speaker of this poem asks if the title creature knows who gave it life. For 10 points each:
[10] Name this poem whose speaker says of the title creature's creator, "He is meek, and he is mild, he became a little child."
ANSWER: "The Lamb"
[10] This poet of "The Lamb" also described a creature who is "burning bright in the forests of the night" in its companion poem "The Tyger."
ANSWER: William Blake
[10] The speaker of this Blake poem "wander[s] thro' each chartered street" of the title city and finds nothing but misery and "mind-forged manacles."
ANSWER: "London"
105-12-53-04209
10. This quantity is defined as the equilibrium constant for the reaction in which a liquid becomes a gas. For 10 points each:
[10] Name this chemical quantity, the pressure of a gas in equilibrium with its liquid and solid phases. ANSWER: vapor pressure [prompt on pressure]
[10] This temperature is defined as the point at which vapor pressure equals atmospheric pressure. For water, it is usually 100 degrees Celsius.
ANSWER: boiling point
[10] This law states the partial pressure of a substance in a gas is equal to its vapor pressure times its mole fraction in solution.
ANSWER: Raoult's Law (raw-ULTS)
11. This painting may have been inspired by Florence Dancourt's play Les Trois Cousines (lay TWAH koo-SAN). For 10 points each:
[10] Name this fete galante painting by Antoine Watteau, which depicts pilgrims preparing to go to an island sacred to Venus.
ANSWER: The Embarkation for Cythera [or the Embarkation from Cythera; or $\underline{\text { L'Embarquement pour }}$ Cythere; or any equivalent involving traveling and Cythera]
[10] The Embarkation for Cythera is emblematic of the art of this Late Baroque period, characterized by florid, frivolous, and indulgent works.
ANSWER: Rococo
[10] This Rococo artist painted a portrait of Madame de Pompadour wearing a flower-decorated dress with two pink roses at her feet. His other works include The Toilet of Venus.
ANSWER: Francois Boucher (boo-SHAY)
12. Chuetas were a subgroup of this people called the "crypto-" variety. For 10 points each:
[10] Name this group that was evicted from Spain in 1492 for practicing a non-Christian religion.
ANSWER: Spanish Jews
[10] Jews were persecuted under this tribunal established in 1480, which attempted to stamp out non-Catholics and was first led by Tomas de Torquemada.
ANSWER: Spanish Inquisition
[10] Heretics captured by the Inquisition were subject to this punishment, which could include a burning at the stake.
ANSWER: auto-da-fe [or act of faith]
13. A hijacked plane landed in this country in 1976, leading to an attack on this country's city of Entebbe.

For 10 points each:
[10] Name this African nation with capital Kampala.
ANSWER: Republic of Uganda
[10] Uganda was then led by this dictator, who was said to be a cannibal and ousted his predecessor Milton Obote.
ANSWER: Idi Amin Dada
[10] Idi Amin tried to annex the Kagera region of this country, leading to a war that he lost. Julius Nyerere, the leader of this country at the time, was criticized for the costs of the war.
ANSWER: United Republic of Tanzania [or Jamhuri ya Muungano wa Tanzania]
140-12-53-04213
14. This goddess promised Paris the most beautiful woman in the world in return for a golden apple. For 10 points each:
[10] Name this Greek goddess of love.
ANSWER: Aphrodite
[10] Aphrodite was married to this god of smithing.
ANSWER: Hephaestus
[10] Aphrodite inspired this sculptor to create a woman out of ivory named Galatea, who was brought to life.
ANSWER: Pygmalion
15. This novel centers on Laurel McKelva, who deals with the death of her father, a judge. For 10 points each:
[10] Name this novel in which Laurel's personality clashes with her stepmother, Fay.
ANSWER: The Optimist's Daughter
[10] This author of "A Worn Path" wrote The Optimist's Daughter.
ANSWER: Eudora Welty
[10] The novel opens with Laurel traveling to this Southern city, the setting of A Streetcar Named Desire and The Moviegoer.
ANSWER: New Orleans
040-12-53-04215
16. One symphony of this number quotes its earlier themes in its final movement, earning it the title of being a "symphony within a symphony." For 10 points each:
[10] The symphony whose final movement includes a choral setting of Schiller's "Ode to Joy" shares what number with Schubert's "Great" C-major symphony and Dvorak's "Symphony from the New World?"
ANSWER: $\underline{\underline{9} \text { th }}$
[10] This deaf composer of Fur Elise composed that setting of the "Ode to Joy."
ANSWER: Ludwig van Beethoven
[10] This prolific conductor and composer updated the orchestration of Beethoven's Ninth for his own era. He also used Beethoven's idea of recapitulating the previous movements' themes in the final movement of his Titan symphony.
ANSWER: Gustav Mahler
002-12-53-04216
17. Name these islands of Japan, for 10 points each.
[10] The largest island of Japan, this island is the second-most populous in the world, in part because it includes Tokyo.
ANSWER: Honshu
[10] The northernmost of the four primary islands of Japan is this one, the location of Sapporo.
ANSWER: Hokkaido
[10] South of Honshu lies this least populous of the four main islands of Japan. It is notable for being inside the Inland Sea.
ANSWER: Shikoku
141-12-53-04217
18. Types of them entities bacteriophages (back-TEE-ree-oh-fay-gehs), and they undergo either the lytic or lysogenic life cycles. For 10 points each:
[10] Name these nonliving, infectious entities, one type of which causes the diseases AIDS.
ANSWER: viruses
[10] Viruses protect their RNA or DNA component inside this protein layer, which contains units on its surface that allows it to recognize the type of cell it infects.
ANSWER: capsid
[10] This virus was the first discovered, and its structure was elucidated by Rosalind Franklin. It infects its namesake crop along with tomatoes, and it has a long, stalk-like shape.
ANSWER: tobacco mosaic virus [or TMV]
19. In this work, Dioneo (DEE-oh-NAY-oh) is allowed to speak on any topic he chooses. For 10 points each:
[10] Name this collection of one hundred stories told over a period of ten days by Florentines escaping the plague. It was written by Giovanni Boccaccio (bow-KAH-chee-oh).
ANSWER: The Decameron, also called Prince Galehaut [or Il Decamerone, cognominato Prencipe Galeotto]
[10] Boccaccio's Il Filostrato tells the tale of this Trojan prince, who is betrayed by his love Creseida. This man's story was later adapted by Chaucer and Shakespeare.
ANSWER: Troilus [or Troilo]
[10] This later German playwright used the Decameron as the source for the "Parable of the Three Rings," found in his play Nathan the Wise.
ANSWER: Gotthold Ephraim Lessing
002-12-53-04219
20. This man excepted atheists and Catholics from the title concept in A Letter Concerning Toleration. For 10 points each:
[10] Name this philosopher, who influenced the U.S. Declaration of Independence in Two Treatises of Government and also wrote An Essay Concerning Human Understanding.
ANSWER: John Locke
[10] In An Essay Concerning Human Understanding, Locke describes the newborn mind as one of these objects waiting to be filled by experience.
ANSWER: tabula rasa [or blank slate]
[10] This other Empiricist philosopher, who said "to be is to be perceived," opposed Locke in Three
Dialogues Between Hylas and Philonous.
ANSWER: George Berkeley
105-12-53-04220
21. This poem contains the lines, "There is not a fiercer hell than the failure of a great object." For 10 points each:
[10] Name this poem about a man beloved of the moon goddess. It opens with the line, "A thing of beauty is a joy forever."
ANSWER: Endymion
[10] Endymion is a poem by this Romantic poet who also wrote "The Eve of St. Agnes" and "Ode to a Nightingale."
ANSWER: John Keats
[10] This Keats poem about a piece of pottery states, "Beauty is truth, truth beauty."
ANSWER: "Ode on a Grecian Urn"

