

1. A zone in which this process happens moves through a crystal in a purification technique devised by WG Pfann. Some amorphous materials undergo a glass transition rather than this process. In a common method of determining molar masses, the temperature at which this process occurs decreases by a factor proportional to the molality. The line on water's (*) phase diagram corresponding to this process has a negative slope. Glycerol and ethylene glycol prevent water from undergoing this process. Fusion is the same as this transition. For 10 points, name this phase transition which turns liquids into solids.

ANSWER: melting [or freezing; or fusion before it is read; or zone melting]

2. In a novel by this author, a monk avoids certain death in Part I, "Perhaps an Accident," but gets burned alive for writing a heretical book in the final part, "Perhaps an Intention". This author created a character who asks, "Does anybody realize what life is while they're living it?" after she revisits her twelfth birthday. In that same play, a "Woman in the Balcony" and a "Belligerent Man" ask questions about life in (*) Grover's Corners. Brother Juniper responds to a Peruvian bridge collapse in a novel by this author. In his most famous play, the Stage Manager marries Emily Webb and George Gibbs. For 10 points, name this author of *Our Town*.

ANSWER: Thornton Wilder

3. This actress played a character who gets angry at cowboy Gay Langland for catching mustangs to sell as dog food. In another film, this actress complained about the "fuzzy end of the lollipop", playing a ukulele-ist named Sugar Kane. She sang, "A kiss on the hand may be quite continental" in a pink dress, performing (*) "Diamonds are a Girl's Best Friend" in the film *Gentlemen Prefer Blondes*. In another role, she befriends two witnesses of a gang massacre, who are disguised in drag. This actress stood over a subway grate to allow the breeze to ruffle her dress in *The Seven-Year Itch*. For 10 points, name this sex symbol and star of *Some Like It Hot*.

ANSWER: Marilyn Monroe [or Norma Jeane Mortenson]

4. This city's streets were built wide enough so that a wagon train could turn around "without resorting to profanity." A square in this city has a monument to seagulls, as well as a 19th century meeting house with a domed roof to improve acoustics. Lake stink affects this US city. The Golden Spike was laid at (*) Promontory Point near this metropolis. Wendover, a suburb of this city, is used as a starting point for visitors to the Bonneville flats. Deer Valley was used as a skiing site for the 2002 Winter Olympics held in this city. Temple Square was begun by Brigham Young in this city. For 10 points, name this home of the Church of the LDS, the capital of Utah.

ANSWER: Salt Lake City, Utah

5. Franklin Gowen and James McParland arrested many people of this national heritage in the 1870s. Coffin ships carried people with this background. By the end of the 19th century, most Lowell girls had this ethnicity. The 1870-1871 Orange Riots broke out between people of this heritage. This was the main heritage that the Know-Nothing Party (*) discriminated against. Al Smith identified with these people. Tammany Hall was dominated by people with this national background. They generally settled in large cities in the Northeast, unlike German immigrants. For 10 points, name these people who came to the US in droves after a potato famine.

ANSWER: Irish-Americans [or people from Ireland; prompt on whites or Caucasians or Europeans]

6. The square root of one over inductance times capacitance has units of this quantity. Wavenumber equals this quantity over the speed of light. Fourier transforms convert between the time domain and this domain. For a mass-on-a-spring, this quantity is proportional to the square root of spring constant over mass. The energy of a photon equals Planck's constant times (*) this property of light. Amplitude skyrockets at certain values of this quantity during resonance. The product of wavelength and this quantity equals wave velocity. For 10 points, name this quantity equal to one over the period, measured in inverse-seconds, or Hertz.

ANSWER: frequency [or angular frequency]

7. Wittgenstein compared his philosophical aim to letting one of these animals out of a bottle. The words “They’ll see, and they’ll know” accompany a voice-over at the very end of *Psycho* in which Mrs. Bates talks about these animals. Sartre’s retelling of the Orestes myth is named for them. A “room” for these animals at Columbia was founded by Thomas (*) Hunt Morgan. The name “Beelzebub” is typically translated using this animal’s name. Athena was conceived while her mother Metis was one of these animals. *Drosophila melanogaster* is one used as a model organism. For 10 points, William Golding wrote a novel titled for the “lord” of what insects?
ANSWER: flies [or fruit flies; or Drosophila melanogaster before it is read]

8. Like Procrustes, a man in this non-Greek city owned a bed that chopped off the feet of people too tall to sleep in it. In the Valley of Shaveh, Abram refuses a gift from this city’s king after giving Melchizedek ten percent of his spoils. The Moabites were descended from an inhabitant of this “city of the plain”. That inhabitant of this city offers up his two (*) virgin daughters to a mob rather than allowing two angels to be raped. Abram wheedles God down from fifty people to finding ten righteous inhabitants of this city. For looking back at this city, Lot’s wife was turned to salt. For 10 points, name this wicked city which was destroyed with Gomorrah.
ANSWER: Sodom

9. According to Arrian, this leader decapitated Bessus after he murdered one of his rivals. This man’s reign culminated in the rise of the *ilai*, the best of whom were known as the Companions. His predecessor invented a weapon triple the size of a regular spear called the sarissa. His troops infiltrated the Agenorium after a successful siege on (*) Tyre. After his death, his empire was split among the Diadochi. After crossing the Hellespont River, this man won the Battles of Gaugamela and Issus over Darius III. For 10 points, name this son of Philip II and student of Aristotle, a “great” leader of the Macedonian Empire.
ANSWER: Alexander the Great [prompt on “Alexander”; accept Alexander III of Macedon]

10. In a novel by this author, Totsky bribes Ganya to marry a *femme fatale*, but she later gets stabbed in bed by her roguish husband. In the second section of a novel by this author, titled “Apropos of the Wet Snow”, the protagonist follows some hated classmates to a brothel, where he harangues Liza. Dunya leaves Luzhin and decides to marry (*) Razumikhin in a book by this novelist. At that novel’s end, the protagonist caves in to Porfiry Petrovich and confesses to Sonya that he killed Alyona Ivanovna because he’s a superman. For 10 points, name this author who wrote about Raskolnikov’s murder of a pawnbroker in *Crime and Punishment*.
ANSWER: Fyodor Dostoyevsky [or Fyodor Dostoevski; or other close phonetic equivalents]

11. In 2013, this state’s Controlling Board approved the Republican governor’s promise to expand Medicaid without legislative approval. The 2016 Republican National Convention will take place in this state. This state’s junior Republican senator supports recognizing same-sex marriage; its current governor once hosted *Heartland* on Fox News. This state decided the (*) 2004 election for George W. Bush. A politician from this state leads the effort to sue President Obama over Obamacare. Rob Portman and Sherrod Brown represent this state, which is governed by John Kasich. For 10 points, name this state also represented by John Boehner.
ANSWER: Ohio

12. This author of an autobiography called *My Mission in Life* roused a crowd on October 17, 1945 to protest the imprisonment of the Minister of Labor. This woman’s corpse was secretly mummified and stored in an Italian crypt for 16 years. On her Rainbow Tour of Europe, this woman controversially bought lots of (*) Christian Dior clothes. She won the title Spiritual Leader of the Nation two months before dying of cervical cancer, at the age of 33. This former actress refused the vice presidential nomination, preferring her foundation to support the needy descamisados. For 10 points, name this wife of Juan Peron.
ANSWER: Eva Peron [or Evita; prompt on Peron to distinguish her from Isabel]

13. This man’s basis polynomials, which have divided difference coefficients, are used in interpolation. The secant method approximates a method named for this mathematician, which recursively uses a function’s derivative to estimate roots. For non-integers n , this man generalized a theorem which gives “ x plus y raised to the n ”. This person used a dot over variables for notating (*) fluxions; like a German contemporary, he originated the concept of a difference quotient. For 10 points, name this man who wrote the *Principia Mathematica*, fought with Gottfried Leibniz over the invention of calculus, and proposed universal gravitation.
ANSWER: Sir Isaac Newton

14. After waking from a nap, this character is jokingly told that she has slept for 100 years. She had a childhood crush on a famous tragedian, whose picture she keeps on her desk and occasionally kisses. At a dinner party, this character becomes upset when Victor sings “Ah! Si tu savais!” The pianist (*) Mademoiselle Reisz gives her letters from a man who left Grand Isle to go on a business trip to Mexico. After watching her friend Adèle go into labor, this character learns from a note that Robert Lebrun has left her forever, leading her to drown herself in the Gulf of Mexico. For 10 points, name this protagonist of Kate Chopin’s *The Awakening*.

ANSWER: Edna Pontellier [or Mrs. Pontellier; accept either underlined answer]

15. One of these subjects stands in a plain brown background in the painting *Whistlejacket*. George Stubbs was famed for painting these subjects, especially a canvas in which a lion is jumping on top of one. One of these living things sticks its head out of a curtain and stares at a sleeping woman in Henry Fuseli’s *The Nightmare*. At the start of his career, Theodor Gericault was well-known for his paintings of these (*) animals. At the very center of Picasso’s *Guernica*, one is screaming out in pain. One of them appears in the center of Jacques-Louis David’s *Napoleon’s Crossing the Alps*. For 10 points, name these animals which appear in equestrian statues.

ANSWER: horses

16. The Scythians were descended from a man who wore a golden belt and was able to use this weapon. Helenus prophesied that the Greeks had to use this weapon to win the Trojan War. Helios lent out his golden goblet in fear of being wounded by this weapon. A hero who wields this weapon has a festering snake wound, lives on the island of Lemnos, and is named (*) Philoctetes. This weapon was used to kill the centaur Nessus as well as the Stymphalian birds. This weapon was poisoned with the blood of the Lernean Hydra, though it was unable to pierce the skin of the Nemean Lion. For 10 points, name this weapon used, along with a mace, by Heracles.

ANSWER: Heracles’ bow and arrows [or Heracles’ poisoned arrows]

17. The tagma was a division in this empire’s army, which fielded infantry called *skouton*. The thematic system was used by its military. A general from this power defeated Gelimer and Tzazon at the Battle of Tricamarum. An Anglo-Saxon “guard” was sent by Vladimir I to this empire as an elite military unit. This polity’s navy, composed of dromon ships, employed (*) Greek fire. Leaders of this empire were known as Basileus. This empire got squashed by the Seljuks at Manzikert in 1071, but conquered the Vandals in North Africa in the sixth century under Belisarius. For 10 points, name this empire which fell in 1453 from Constantinople.

ANSWER: Byzantine Empire [or the Byzantines; or the Eastern Roman Empire; don’t accept or prompt on “Rome” or “Roman Empire” alone]

18. A solo soprano and boys’ choir are accompanied by flute, glockenspiel and strings in this musical work’s movement “Love Flies Everywhere.” This work begins and ends with a hymn addressing a goddess as “Empress of the World.” In this work, the aria “Olim lacus colueram” is sung by a tenor falsetto voice to represent a (*) roasting swan. This work is divided into sections like “In the Tavern” and “Court of Love,” and it is part of the larger triptych *Trionfi*. This cantata ends with a reprise of its opening movement “O Fortuna.” For 10 points, name this musical setting of a medieval poetry collection, the best-known work of Carl Orff.

ANSWER: Carmina Burana; *Cantiones profanae cantoribus et choris cantandae comitantibus instrumentis atque imaginibus magicis* [or Songs of Beuern; prompt on “O Fortuna”; ask for less specificity for the answer “*Trionfi*” until mention]

19. A character in this play complains about “heavy lightness, serious vanity” and “brawling love, loving hate” in one speech. Two characters in this play argue if a singing bird is a lark or a nightingale. A character in this play remarks, “Then I defy you, stars!” and complains “O, I am fortune’s fool!” A speech in this play describes a (*) fairy who gallops through lovers’ brains while they sleep. One protagonist of this play pleads for the fair sun to “kill the envious moon” and wishes to be a glove upon his lover’s hand during a scene where he’s asked, “deny thy father and refuse thy name”. For 10 points, name this Shakespeare play which includes the balcony scene.

ANSWER: Romeo and Juliet

20. A nitrated derivative of this material immobilizes nucleic acids in Southern and Northern blots. Rosette complexes synthesize this compound. This material substitutes for callose on the cell plate once mitosis is over. Normally, this material is crosslinked with pectin and its branched -hemi- counterpart. N-acetyl groups on C2 would turn this substance into (*) chitin [pr. KYE-TIN]. Beta 1,4 linkages in this polymer keep it much more rigid than amylopectin. Termites and cows are capable of digesting this substance, but humans aren't. For 10 points, name this polymer of glucose found in plant cell walls.

ANSWER: cellulose [prompt on D-glucose before it is read]

TB: All original high-temperature superconductors were based on this element's oxides. Reducing sugars reduce a mixture of sodium citrate and this element's sulfate pentahydrate, giving a red precipitate. This element's electron configuration ends 4s1 3d10. This element's blue sulfate gets reduced, turning colorless, in a lab demo where this element is the cathode and (*) zinc is the anode. Acetic acid reacts with this element's oxides to form the green pigment verdigris. After silver, it is the second-best electrical and thermal conductor among the elements. For 10 points, name this transition metal right above silver on the Periodic Table, with symbol Cu.

ANSWER: copper [or Cu before it is read]

1. Songs called *lieder* developed in this nation during its Romantic movement, which took place later than England's. For 10 points each:

[10] Name this European nation where the *sturm und drang* and Weimar classicism movements originated.

ANSWER: Federal Republic of Germany [or Deutschland]

[10] Theobald von Oer painted this founder of Weimar classicism lecturing to his good friend and contemporary Goethe. This author of the *Aesthetic Letters* collaborated with Goethe on *Xenien*.

ANSWER: Friedrich Schiller

[10] Schiller may be most famous today for this poem, which opens "Freude, schoener Goetterfunken", calling the title attribute a "beautiful spark of Gods."

ANSWER: "Ode to Joy"

2. Since these animals are non-rigid bodies, they do not violate the conservation of angular momentum if they land on their feet after being dropped off a building. For 10 points each:

[10] Name these animals. One of them is locked inside a box with a bottle of poison in a thought experiment about the superposition of quantum states, hypothesized by Schrodinger.

ANSWER: cats [or Schrodinger's cat]

[10] Schrodinger's equation outputs the energy as the eigenvalue of these eigenfunctions. These functions are symbolized by the Greek letter psi.

ANSWER: wavefunctions

[10] Two versions of the Schrodinger equation exist: one that depends on this parameter, and one that does not. The partial derivative of the wavefunction with respect to this quantity multiplies " \hbar " in the general case.

ANSWER: time

3. Singer Joe Walsh vowed to make his own song "Life's Been Good" the US national anthem, during joking claims that he would run in this presidential election. For 10 points each:

[10] Name this election in which incumbent Jimmy Carter got electorally destroyed by former California governor Ronald Reagan.

ANSWER: Election of 1980

[10] Carter faced a heavy challenge even in the Democratic primaries from this Massachusetts senator. This politician had earlier killed Mary Jo Kopechne after driving off a bridge in Chappaquiddick.

ANSWER: Ted Kennedy [or Edward Moore Kennedy III; prompt on "Kennedy"]

[10] At the second presidential debate Reagan responded to Carter attacking him for his views on Medicare with this four-word phrase. Bill Clinton used this phrase in turn to mock the Republicans at the 2012 DNC.

ANSWER: "There you go again"

4. Benjamin Franklin offered this action as a procedural alternative to assassinating "obnoxious" executives at the Constitutional Convention. For 10 points each:

[10] Name this motion to remove the US Commander-in-Chief from office. When this action was taken against Andrew Johnson, he was acquitted in the subsequent trial in the Senate.

ANSWER: impeachment of a United States President [or word forms]

[10] Once a motion for impeachment is made, the process starts in this House Committee. Its counterpart in the Senate holds hearings for presidential appointments and rules on Constitutional amendments.

ANSWER: House Committee on the Judiciary [or House Judiciary Committee; accept Senate Judiciary Committee]

[10] This lesser action can be taken if there are not grounds for impeachment. This action is a public reprimand given by Congress; Andrew Jackson is the only US President to have been formally given this punishment.

ANSWER: censure [or motion of censure]

5. An artist from this movement was known for her many paintings of Marie Antoinette. For 10 points each:

[10] Name this 18th century art movement associated with Elisabeth Vigee-Lebrun. Another artist from this movement painted portraits of Madame de Pompadour.

ANSWER: Rococo

[10] This artwork by Jean-Honore Fragonard from the Rococo era depicts a man pushing a woman in a pink dress on the title object, unaware of the second man looking up at the woman.

ANSWER: *The* Swing [or L'Escarpolette]

[10] The wide brushstrokes in *The Swing* are thought to have been influenced by this other artist of *The Garden of Love*. The fleur de lis embroiders a man's robe in a part of this man's *Disembarkation at Marseilles*.

ANSWER: Peter Paul **Rubens**

6. Answer the following about the *Nicomachean Ethics*, for 10 points each:

[10] It was the major tract on ethics written by this Greek philosopher, the student of Plato, who also wrote tracts on *Politics* and *Poetics*.

ANSWER: **Aristotle**

[10] Aristotle argued that virtue could only be found in this location: the middle ground between two extremes. For example, this two-word phrase refers to being brave, without being either cowardly or being rash.

ANSWER: "**golden mean**"

[10] Aristotle also defined the highest aim of all humans as *eudaimonia*, usually translated as this word. Jeremy Bentham argued for the "greatest" *this* principle.

ANSWER: **happiness** [accept no other answers]

7. Name some diseases that cause abnormal fevers, for 10 points each:

[10] Sufferers of this fever have body temperatures that peak in the early morning, opposite most other fevers. A cook named Mary Mallon infected dozens of people with this disease in New York City in the early 20th century.

ANSWER: **typhoid** fever [do not accept or prompt on "typhus"]

[10] A cyclical fever discovered by Pel and Epstein is common in patients with this type of lymphoma, named for an English doctor. It is diagnosed based on the presence of Reed-Sternberg cells.

ANSWER: **Hodgkin**'s lymphoma [or **Hodgkin**'s disease; or **Hodgkin** lymphoma; prompt on partial answer]

[10] This autoimmune disorder, which causes severe inflammation of blood vessels in children, is usually characterized by a high, non-responsive fever. It was named for a Japanese pediatrician.

ANSWER: **Kawasaki**'s disease [or **Kawasaki**'s syndrome]

8. This man and his brutal guards massacred tens of thousands of people at Novgorod because he heard a rumor that they were trying to secede. For 10 points each:

[10] Name this really rather terrible tsar of "all the Russias".

ANSWER: **Ivan IV** [or **Ivan** the Terrible]

[10] Ivan's son Feodor was the final tsar of this dynasty to rule Russia. This dynasty was replaced by the Romanovs after the Time of Troubles.

ANSWER: **Rurikid** Dynasty

[10] Succession in the late Romanov dynasty, unlike the Rurikid dynasty, followed this rule, embodied in the Pauline laws. In this European dynastic tradition, the firstborn male child, closest by blood, inherits the throne.

ANSWER: **primogeniture**

9. These poets, such as George Herbert and Andrew Marvell, frequently used extended metaphors called conceits. For 10 points each:

[10] Name this group of 17th century English poets who really, really liked writing poems about sex. The most famous member of this group wrote the *Holy Sonnets*.

ANSWER: **metaphysical** poets

[10] This Metaphysical poet of "The Flea" and "Death, be not proud" also gave Hemingway the title for his novel *For Whom the Bell Tolls*.

ANSWER: John **Donne** [DUN]

[10] The name "metaphysical poets" originates with this later author. This author defined a lexicographer as a "harmless drudge" in a dictionary used as the standard for more than 150 years.

ANSWER: Samuel **Johnson**

10. Name these basketballers who have *literally* been some of the biggest busts of the NBA Draft, for 10 points each:

[10] This Ohio State grad, selected number one in 2007 over Kevin Durant, has had his career decimated with injuries. Most recently a member of the Miami Heat, this man has only played in three of his seven NBA seasons.

ANSWER: Greg **Oden**

[10] The Detroit Pistons selected this Serbian big man with the second overall pick in 2003, before Carmelo Anthony, Dwayne Wade and Chris Bosh. He proceeded to average 6 points a game during his twelve-year career.
ANSWER: **Darko Milicic** [accept either underlined part; or the **Human Victory Cigar**]

[10] This 7-foot Nigerian put the University of the Pacific on the map by being drafted number one by the LA Clippers in 1998. He averaged double-digit points only twice in his career and was picked over Vince Carter.
ANSWER: Michael **Olowokandi**

11. This woman, born Margaretha Geertruida Zelle, was known as Agent H-21 to French intelligence. For 10 points each:

[10] Name this dancer who was executed in 1917 for spying for Germany.

ANSWER: Mata **Hari**

[10] This celebrated Venetian spy and author of a memoir titled *Story of My Life* was once imprisoned in the Doge's Palace, but escaped. Because of his ability at smooth-talking important women, his name now means "womanizer."

ANSWER: Giacomo **Casanova**

[10] Ethel and Julius, an American couple with this surname, were sent to the electric chair in 1953 for allegedly selling secrets to the Soviet Union.

ANSWER: **Rosenberg** [or the **Rosenbergs**]

12. This composer discussed now-obsolete musical instruments such as the serpent and ophicleide in his literary work *Treatise on Instrumentation*. For 10 points each:

[10] Name this French Romantic composer who took program music to the next level with his programmatic five-movement symphony concluding with the "March to the Scaffold," *Symphonie Fantastique*.

ANSWER: Hector **Berlioz**

[10] This later French composer included an extended bassoon solo in his symphonic work based on a Goethe poem of the same name, *The Sorcerer's Apprentice*.

ANSWER: Paul **Dukas**

[10] Both Hector Berlioz and Paul Dukas won an annual scholarship in musical composition known as the "Prix de *this city*." Ottorino Respighi wrote works depicting the "Fountains" and "Pines" of this city.

ANSWER: **Rome**, Italy [or **Roma**; or "Prix de **Rome**"; also accept *Fountains of Rome* or *Pines of Rome*]

13. Madame Sofronie buys this object for twenty dollars, which Della uses to purchase a watch chain. For 10 points each:

[10] Name this most prized possession of Della's. The absence of this possession renders Jim's Christmas present to Della completely useless.

ANSWER: Della's **hair** [or equivalents]

[10] This American author described Della and Jim's unfortunate predicament in his story "The Gift of the Magi." He really liked twist endings.

ANSWER: **O. Henry** [or William Sydney **Porter**]

[10] O. Henry created the character of Jimmy Valentine, an expert at this profession, in his story "A Retrieved Reformation." Jimmy uses this skill to save the niece of his love interest Annabel.

ANSWER: **safe cracking** [or **breaking** into **safe**s; or obvious equivalents; prompt on **crime** or **theft** or less specific answers]

14. The UML notation for these things divides them into attributes and methods. For 10 points each:

[10] Name these things which can inherit methods and attributes from those higher in the hierarchy. Like methods, these things can have public or private visibility to the rest of the program.

ANSWER: **classes**

[10] Instances of classes are known as these things. Java is an example of a language "oriented" around these things.

ANSWER: **objects**

[10] Class A will be a subclass of class B if it has this grammatical relationship with B. This relationship is often contrasted with the "has-a" relationship, to determine classes that are composed of other classes.

ANSWER: "**is-a**" relationship

15. To prevent hoop stress, Filippo Brunelleschi used octagonal chains made of stone while designing one of these structures made of brick. For 10 points each:

[10] Name these objects. Two of them were nested inside each other by Brunelleschi in his design for the Florence Cathedral which kicked off Renaissance architecture.

ANSWER: domes [or duomo]

[10] This later American architect used an octagonal dome for his own private residence. This enthusiast of Andreas Palladio designed a Rotunda surrounding a library, rather than a church, in a building finished in 1826.

ANSWER: Thomas Jefferson

[10] This English architect used nested domes separated by a brick cone in his re-design of St. Paul's Cathedral after London's Great Fire.

ANSWER: Sir Christopher Wren

16. This author wrote a short story collection titled *Beethoven Was One-Sixteenth Black*. For 10 points each:

[10] Name this Nobel Laureate who died in 2014. Her novels include *July's People* and *The Conservationist*.

ANSWER: Nadine Gordimer

[10] Alex really, really likes listening to Beethoven, and then committing ultraviolence with his droogs, in this Anthony Burgess novel about the importance of free will.

ANSWER: A Clockwork Orange

[10] A Beethoven symphony prompts disturbing mental imagery for Helen in this 1910 novel. This novel's main protagonist is Margaret Schlegel.

ANSWER: Howard's End

17. Ever complain about how little Turkmenistani history gets asked about at quizbowl tournaments? Never fear. For 10 points each:

[10] During the Cold War, Turkmenistan was one of these republics. The abbreviation USSR stands for the "union" of these polities.

ANSWER: Soviet socialist republics [prompt on partial answer]

[10] One of these projects located in Karakum, Turkmenistan, was finally finished in 1988. Gamal Nasser attempted to nationalize another of these projects in Egypt, starting a crisis in 1956.

ANSWER: a canal [or the Karakum Canal]

[10] Pandjeh, in modern-day Turkmenistan, was the site of a diplomatic crisis between Britain and Russia during this nineteenth century "competition" for power in modern-day Central Asia.

ANSWER: the Great Game

18. In this hero's Super-Saiyan moments, called riastarhae, he starts bleeding from his scalp. For 10 points each:

[10] Name this hero of the Ulster cycle, the son of Lugh. He fought the Cattle Raid of Cooley against Medb.

ANSWER: Cu Chulainn [or close phonetic equivalents]

[10] Cu Chulainn is a hero in this island's mythology, which also includes the Fenian, Historical, and Mythological Cycles. St. Patrick drove snakes off this island.

ANSWER: Ireland

[10] According to legend, the high kings of Ireland had their seat of power on this hill. The Coronation Stone, or Lia Fail, was found at this location.

ANSWER: Hill of Tara

19. This organization crucified eight rebels in June 2014 near Deir Hafar. For 10 points each:

[10] Name this so-called caliphate which has executed multiple Western journalists on its way to effectively controlling large swaths of territory in Iraq and Syria.

ANSWER: ISIS [or the Islamic State of Iraq and the Levant; or ISIL; or the IS]

[10] The executions of James Foley and other journalists were led carried out by "Jihadi John", a member of this four-person terrorist cell composed of British defectors to jihad. The common nickname is acceptable.

ANSWER: the Beatles

[10] This other Islamist organization opposes ISIS but is nevertheless experiencing its dying days for supporting the Assad regime. Iran funds this militant political party, which fired rockets into Israel from the north, in 2006.

ANSWER: Hezbollah [or close phonetic equivalents]

20. Answer the following about the most thrilling aspect of chemistry--balancing reactions. For 10 points each:
[10] When writing out each species, don't forget that nearly all members of this group exist as diatomic gases. Elements of this group, which include chlorine, fluorine, and bromine, almost always have -1 oxidation states.

ANSWER: halogens [or Group 7; or Group 17]

[10] When balancing the reaction, make sure not to include any of these species, which don't participate in the reaction and are just along for the ride as counterions. Nitrates and group 1 cations are common examples.

ANSWER: spectator ions [or spectators]

[10] When dealing with redox reactions, it's easiest to balance each of these reactions first, and then take the LCM of electrons transferred. These are the individual oxidations or reductions that take place at each electrode.

ANSWER: half-reactions