QQBC Packet 1

1. **This play concludes with a warning that “great words of prideful men are ever punished with great blows.” The suicides of both Eurydice [yoo-RIH-dih-see] and Haemon [HAY-mahn] follow the death of this play's title character, who claims “there is nothing shameful in piety,” and rebukes her sister (\*)** Ismene [iss-MAY-nay] as a coward. The title character defies Creon's order and buries Polyneices [PAH-lih-NYE-seez] in—for 10 points—what Sophocles [SAH-fuh-kleez] tragedy about a daughter of Oedipus [ED-uh-puss]?  
answer: Antigone [ann-TIG-uh-nee]  
<LIT, OTHER>

8. This story's narrator tricks his enemy Fortunato by pretending to have acquired a ”pipe” of the title wine. For 10 points each—  
  
 A. Name this Edgar Allan Poe story in which Fortunato is left to die behind a stone wall.  
  
 answer: The Cask of Amontillado [ah-mohn-tee-AH-doh]  
  
 B. “The Cask of Amontillado” is narrated by this man, whose family motto can be translated as “no one attacks me with impunity.”  
  
 answer: Montresor [mawn-tray-sor]  
  
 C. The arms of the Montresor family depict a “huge human foot” crushing one of these ”rampant” animals.  
  
 answer: snakes or serpents (or Serpentes; accept vipers)  
  
 <LIT, AMER>

2. **Ben Olmstead invented an esoteric one of these systems, Malbolge [mal-BOHL-guh], that is not Turing-complete. Functional ones like Haskell and Scheme minimize side effects. Old examples of them include ALGOL, Ada, and one named “Beginners's All-Purpose Symbolic Instruction (\*)** Code,” commonly called BASIC. Compilers translate “high-level” ones into machine code. Algorithms are expressed in—for 10 points—what “languages” like Java?  
  
 answer: programming language(s) (prompt on “language(s)”; prompt on “esolang” until “Haskell”)  
  
 <SCI, OTHER>

2. There is more than one way to define a hyperbola. For 10 points each—  
  
 A. One definition is that a hyperbola is the set of all points whose distances from two fixed points have a constant difference. Give the name of the two fixed points.  
  
 answer: foci [FOH-“sigh”] (or focuses or focal points)  
  
 B. A hyperbola is also the locus of points whose distance to a focus and distance to this line have a constant ratio, called the eccentricity, greater than one.  
  
 answer: directrix  
  
 C. For the general second-degree equation [no need to specify case of letters] A x squared plus B x y plus C y squared plus D x plus E y plus F equals zero, this expression must be negative for the equation's graph to be a hyperbola. Give an answer in terms of A, B, C, D, E, and F.  
  
 answer: B2 - 4AC (or -4AC + B2; case is irrelevant)  
  
 <SCI, OTHER>

3. **This author imagined that “private industry” would be abolished by the EPIC [“epic”] movement in the book I, Governor of California, and How I Ended Poverty, which he published shortly before a failed 1934 gubernatorial run. Marija [mah-REE-ah] is forced into prostitution in a novel by this author that centers on the immigrant (\*)** Jurgis [YOOR-ghis] Rudkus, who finds work in an unsanitary Chicago slaughterhouse. For 10 points—name this author of The Jungle.  
answer: Upton (Beall) Sinclair (Jr.)  
<LIT, AMER>

1. Joan Miró [zhoh-AHN mee-ROH] placed a red spiral on top of two circles to depict the head of a peasant from this region. For 10 points each—  
  
 A. Name this Spanish territory whose cliffs are featured in Salvador Dalí's The Persistence of Memory.  
  
 answer: Catalonia  
  
 B. This architect designed the unfinished Sagrada Familia, which is in Catalonia's capital of Barcelona.  
  
 answer: Antonio Gaudi y Cornet (or Antoni Gaudí i Cornet)  
  
 C. In 1934, the Catalan artist Josep Maria Sert was commissioned to paint a mural replacing Man at the Crossroads, a work by this Mexican muralist and husband of Frida Kahlo [FREE-dah KAH-loh].  
  
 answer: Diego Rivera [ree-VAYR-ah] (or Diego (María de la Concepción Juan Nepomuceno Estanislao de la) Rivera y Barrientos Acosta y Rodríguez)  
  
 <FA, VISUAL>

4. **HIV was discovered in this scientist's namesake institute, where the lac [“lack”] operon model was developed by Jacob and Monod [muh-NOH]. This man extended the work of Francesco Redi with experiments in which he exposed swan-neck flasks of broth to air and found no microorganisms, disproving (\*)** spontaneous generation. He also created the first anthrax and rabies vaccines. For 10 points—name this Frenchman who heated milk to kill bacteria.  
answer: Louis Pasteur [LOO-ee pass-TUR] [The process of heating milk to kill bacteria is known as pasteurization.]  
<SCI, BIO>

5. The title character of this novel is buried under a linden tree after he shoots himself. For 10 points each—  
  
 A. Name this novel whose protagonist recites the poetry of Ossian [AH-see-an] to his beloved while staying in the town of Wahlheim [VAHL-hyme].  
  
 answer: The Sorrows of Young Werther [VAYR-tayr] (or Die Leiden des jungen Werthers)  
  
 B. This German author of The Sorrows of Young Werther wrote about a theater enthusiast in the novel Wilhelm Meister's Apprenticeship.  
  
 answer: Johann Wolfgang von Goethe [GUR-tuh]  
  
 C. The Sorrows of Young Werther is this type of novel that is presented as a series of letters. The name of this literary form derives from a Latin word meaning “letter.”  
  
 answer: epistolary [uh-PIH-stuh-lair-ee] novel  
  
 <LIT, EURO>

5. **This object was hidden under a church floor after the Battle of Brandywine Creek. One story claims that this object was damaged in connection with the death of John Marshall in 1835. This object is engraved with a quote from the Book of Leviticus, as well as the names of two men who (\*)** recast it 1753, John Pass and John Stow. For 10 points—name this object that likely did not ring on July 4, 1776 at Independence Hall.  
  
 answer: Liberty Bell  
  
 <HIST, AMER>

8. For 10 points each—answer the following about advances in gay rights in America:  
  
 A. Gays and lesbians were allowed to serve openly in the U.S. military following the 2011 repeal of this policy that had previously barred them from revealing or being questioned about their sexuality.  
  
 answer: Don't Ask, Don't Tell (or DADT)  
  
 B. A June 1969 police raid at this Greenwich Village bar, which resulted in riots, is widely considered the beginning of the modern gay rights movement.  
  
 answer: Stonewall Inn (accept Stonewall riots)  
  
 C. In 1974 homosexuality was removed as a mental illness from this publication of the American Psychiatric Association, which is now in its fifth edition.  
  
 answer: DSM or Diagnostic and Statistical Manual of Mental Disorders  
  
 <HIST, AMER>

6. **After molecular hydrogen, this compound is the most abundant molecule in the universe. In the water-gas shift reaction, this compound reacts with water to yield hydrogen gas and carbon dioxide. This diatomic [“dye-atomic”] gas binds to (\*)** hemoglobin 200 times more tightly than oxygen, which is why homes often have detectors for it. For 10 points—name this colorless, odorless, poisonous gas whose formula is CO [“C-O”].  
  
 answer: carbon monoxide (accept CO before “CO”)  
  
 <SCI, CHEM>

1. Republican senator David Vitter lost this state's 2015 gubernatorial election, in part due to his involvement in a prostitution scandal. For 10 points each—  
  
 A. Name this southern state where Vitter was a candidate to succeed Bobby Jindal.  
  
 answer: Louisiana  
  
 B. Vitter lost to this man, who became the first Democrat in 7 years to win a statewide Louisiana election.  
  
 answer: John Bel Edwards  
  
 C. After the loss, Vitter declared he would not run for re-election to the Senate in 2016; this current mayor of New Orleans has not ruled out a run for Vitter's seat.  
  
 answer: Mitch Landrieu [LAN-drew] (or Mitchell (Joseph) Landrieu)  
  
 <CE, CE>

7. **In 2015 this state's legislature modified a “storm-water mitigation” fee opponents labeled a ”rain tax.” In 2015 its governor canceled a planned light rail “Red Line,” and activated the National Guard to quell protests after a “rough ride” was blamed for killing a 25-year-old in a police (\*)** van. Larry Hogan succeeded Martin O'Malley as governor of—for 10 points—what state where Freddie Gray died in police custody in Baltimore?  
  
 answer: Maryland  
  
 <CE, CE>

0. For 10 points each—answer these questions about acids:  
  
 A. What definition of acidity, which applies to any solvent, defines acids as substances capable of donating a proton to the solvent?  
  
 answer: Brønsted-Lowry [BRAHN-sted LAO-ree] acids (do not accept or prompt on “Arrhenius”)  
  
 B. The Arrhenius [uh-RAY-nee-us] definition is that an acid is a substance that emits what kind of ion, equivalent to a single proton?  
  
 answer: hydrogen(-plus) ion or H+ (or H+1 or H+1+; do not accept or prompt on “hydronium”)  
  
 C. In chromic acid, H2CrO4 [“H two, C-R-O four”], the chromium atom has what oxidation state? Be sure to give the sign.  
  
 answer: +6 or 6 plus (do not accept or prompt on “6”)  
  
 <SCI, CHEM>

8. **This city was dubbed ”the city too busy to hate.” In an 1895 “exposition” in this city, the phrase ”cast down your bucket where you are” indicated that blacks would submit to white political rule. In 1964 the Supreme Court forcibly applied the Civil Rights Act to a (\*)** motel named for the “heart of” this city. Booker T. Washington negotiated a “compromise” named after—for 10 points—what capital of Georgia?  
  
 answer: Atlanta, Georgia (accept Heart of Atlanta Motel or Atlanta Compromise)  
  
 <HIST, AMER>

5. For 10 points each—answer the following about bodies of water in and around Scandinavia:  
  
 A. A Norwegian word names these narrow inlets of the sea along coasts, with high cliffs surrounding the inlet. Many of them define Norway's northwest coast.  
  
 answer: fjords (or fiords)  
  
 B. This wide strait with a bend separates the southern coasts of Norway and Sweden from the Jutland peninsula of Denmark. The Kattegat [KAT-ih-gat] is a smaller strait south of it.  
  
 answer: Skagerrak [SKAG-ih-RAK]  
  
 C. In the 1980s, the Swedish government started a program to dump this substance into the country's lakes to neutralize the effects of pervasive acid rain.  
  
 answer: lime (or calcium oxide; accept limestone or calcium carbonate, as the Swedish program uses that as well)  
  
 <GEO, GEO>

9. **The endpoint of the movement of these devices is called an ictus. Louis Spohr was an early advocate of this device. Pierre Boulez [boo-LEZ] did not perform with one of these implements. This object was also eschewed by Leopold Stokowski [stuh-KOW-skee] in the film Fantasia [fan-TAY-zhuh]. When using one of these devices, a (\*)** downbeat should be a straight downward motion. For 10 points—name these sticks used to keep time by conductors.  
  
 answer: baton (prompt on ”(conductor's) wand(s)” or ”(conductor's) stick(s)”)  
  
 <FA, OTHER>

6. For 10 points each—answer the following about events in the U.S. in the year 1822:  
  
 A. This national symbol was officially updated in 1822 to include 24 stars, reflecting Missouri's admittance to the Union the previous year.  
  
 answer: (U.S. or American) flag (prompt on “Stars and Stripes” or “Old Glory”)  
  
 B. This man was executed on July 2, 1822 for his role in planning a slave rebellion in Charleston, South Carolina.  
  
 answer: Denmark Vesey [VEE-see] (accept Telemaque)  
  
 C. This future president was born in 1822. He vetoed the Bland-Allison Act and won the presidency through the Compromise of 1877.  
  
 answer: Rutherford B(irchard) Hayes  
  
 <HIST, AMER>

10. **This monarch supported the controversial High Church preacher Henry Sacheverell [suh-SHEV-rull] and appointed Robert Harley to replace the Whig Junto. This monarch reinstituted the practice of touching for scrofula [SKRAH-few-luh] and appointed the Duke of Marlborough army commander during the War of the (\*)** Spanish Succession. For 10 points—name this Protestant daughter of King James II who signed the 1707 Act of Union creating Great Britain.  
  
 answer: (Queen) Anne of Great Britain  
  
 <HIST, EURO>

4. Upon reading this poem, the editor Richard Henry Dana Sr. suggested it was too good to have been written by an American. For 10 points each—  
  
 A. Name this poem in which “the gray-headed man” and the “speechless babe” are among those who will eventually join the “innumerable caravan” of the dead.  
  
 answer: Thanatopsis [THAN-uh-“TOP”-sis]  
  
 B. This poet, who wrote “Thanatopsis” as a teenager, described a bird that flies above the “pathless coast” in “To a Waterfowl.”  
  
 answer: William Cullen Bryant  
  
 C. In a lecture on this author of The Last of the Mohicans, Bryant claimed that the “defects” of this man's novels were offset by the vividness of his style.  
  
 answer: James Fenimore Cooper  
  
 <LIT, AMER>

11. **Lehava, a right-wing group in this country, has been investigated by this country's internal security force, the Shin Bet. In 2015 the E.U. changed the country of origin on the labels of goods produced in territories occupied by this nation. A string of recent attacks in this nation described as the “Knife (\*)** Intifada” [in-tih-FAH-duh] was sparked by protests over the Temple Mount. For 10 points—name this nation led by Benjamin Netanyahu.  
  
 answer: (State of) Israel (or Medinat Yisra'el)  
  
 <CE, CE>

5. After many psychiatrists responded to a survey about this man by suggesting he was unfit to be president, the American Psychiatric Association ruled that it was unethical to offer such opinions. For 10 points each—  
  
 A. Name this 1964 Republican presidential nominee who ran under the slogan “In your heart, you know he's right.”  
  
 answer: Barry (Morris) Goldwater  
  
 B. Goldwater won the Republican nomination by defeating this politician, who went on to serve as vice president under Gerald Ford.  
  
 answer: Nelson (Aldrich) Rockefeller  
  
 C. Rockefeller's loss led to the defection of many moderate Republicans to this Democrat, who defeated Goldwater in a landslide.  
  
 answer: Lyndon B(aines) Johnson (or LBJ; prompt on “Johnson”)  
  
 <HIST, AMER>

12. **According to this character, Fortune is a “false housewife.” This woman “pursed up” the heart of a lover by appearing in a barge that sat on the water “like a burnish'd throne.” Enobarbus claims that “custom” cannot “stale” this woman's “infinite variety.” This defeated foe of (\*)** Octavius Caesar uses the venom of two asps to commit suicide. Shakespeare wrote a tragedy about—for 10 points—what Egyptian queen who loved Mark Antony?  
  
 answer: Cleopatra (or Cleopatra VII Philopator; accept Antony and Cleopatra after “Antony”)  
  
 <LIT, BRIT>

1. Peremptory challenges can be issued during this phase of a trial. For 10 points each—  
  
 A. Give the two-word term for this process during which individuals are asked questions to assess their potential biases. It comes from Old French words meaning “to speak the truth.”  
  
 answer: voir dire [vwahr deer]  
  
 B. Voir dire is used to determine who will sit on these bodies. They determine the facts at trial, while the judge determines the law.  
  
 answer: jury (accept juries)  
  
 C. This constitutional amendment provides that criminal defendants have the right to be tried “by an impartial jury.”  
  
 answer: Sixth Amendment (accept Amendment 6)  
  
 <RMPSS, SOC SCI>

13. **Historians are uncertain whether this person died in 1812 at Fort Manuel or in 1884 in Wyoming, in part because she was not the only wife of Toussaint Charbonneau [too-SAHN shar-buh-NOH]. This woman gave birth to her son Jean Baptiste and reunited with her brother Cameahwait [kuh-MAY-uh-“wait”] while (\*)** guiding a journey through the Rocky Mountains. For 10 points—name this woman who accompanied an exploration of the Louisiana Purchase led by Lewis and Clark.  
  
 answer: Sacajawea [SAH-kuh-juh-WEE-uh] (or Sacagawea or Sakakawea)  
  
 <HIST, AMER>

5. For 10 points each—answer the following about 20th-century Japan-Korea relations:  
  
 A. The 1910 Japanese annexation of Korea ended this final Korean dynasty.  
  
 answer: Joseon Dynasty (or Choson Dynasty or Kingdom of Joseon or Chosun or Great Joseon State or Choson'gul)  
  
 B. Many Koreans died after being drafted by the Japanese to work in Hiroshima and this other Japanese city on which the U.S. dropped an atomic bomb.  
  
 answer: Nagasaki(-shi)  
  
 C. The occupation of Korea ended during the rule of this longtime emperor of Japan, who gave the Jewel Voice Broadcast announcing Japanese surrender in 1945.  
  
 answer: Hirohito [hee-roh-hee-toh] (or Showa tenno or the Showa emperor)  
  
 <HIST, WORLD>

14. **This character saves a woman from being beheaded by extremists in Karachi. Emelia Ricoletti fakes her death and murders her husband in an episode that largely takes place in this character's “mind palace.” This character fakes his death by jumping off the roof of St. (\*)** Bartholomew's Hospital in “The Reichenbach Fall.” For 10 points—name this character played by Benedict Cumberbatch, who lives at 221B Baker Street.  
  
 answer: Sherlock Holmes (accept either underlined portion)  
  
 <TRASH, POP CULT>

9. For 10 points each—answer the following about people who were unprepared for winter:  
  
 A. At the end of A Dance With Dragons, this king's army becomes snowbound while marching on Winterfell; he had brought it from Dragonstone to defeat the Wildlings.  
  
 answer: Stannis Baratheon [buh-RATH-ee-un] (prompt on “Baratheon”)  
  
 B. This foolish insect starves in the winter after he wastes the summer, during which the industrious ant works.  
  
 answer: grasshopper (accept The Ant and the Grasshopper)  
  
 C. Nearly 10,000 of Napoleon's soldiers froze to death on the night of November 8, 1812 during a retreat that began in this city, which in September 1812 had nearly burned to the ground.  
  
 answer: Moscow (or Moskva)  
  
 <MISC., MISC.>

15. **This element's 7068 [“seven oh six eight”] alloy has the highest tensile strength of any of its alloys and is used in prosthetic limbs. Smelting this element involves dissolving its oxide in cryolite [“CRY-oh-light”] before electrolyzing the mixture. This element is purified in the Hall-Héroult [ay-roo] process, and it is chiefly mined from (\*)** bauxite [BAWK-“sight”] ore. The most common metal in Earth's crust is—for 10 points—what element used to make metallic soda cans?  
  
 answer: aluminum (or Al or aluminium)  
  
 <SCI, CHEM>

4. Mycorrhizae [MYE-koh-RYE-zee] are symbiotic relationships between these organisms and plant roots. For 10 points each—  
  
 A. Name these organisms, examples of which include molds and mushrooms.  
  
 answer: fungi [FUN-jye or “FUN-guy”] (or funguses)  
  
 B. The primary component of cell walls in fungi is this nitrogen-containing polysaccharide [PAH-lee-“SACK-uh-ride”] that can also be found in exoskeletons of arthropods.  
  
 answer: chitin [KYE-tin]  
  
 C. This generic term describes unicellular fungi such as Candida albicans [KAN-dih-duh AL-bih-“cans”].  
  
 answer: yeasts  
  
 <SCI, BIO>

16. **This city's central avenue, the Monumental Axis, runs to a distinctive bridge built with diagonally criss-crossing steel arches that is named after president Juscelino Kubitschek [zhoo-suh-LEE-noo KOO-buh-chek]. This city's hyperboloid-shaped cathedral was built by Oscar (\*)** Niemeyer [NEE-mye-ur], who began working with Lúcio Costa to design this city in 1956. It replaced Rio de Janeiro as the capital of its country. For 10 points—name this capital city of Brazil.  
  
 answer: Brasília  
  
 <GEO, GEO>

6. For 10 points each—answer the following about songs whose titles share a word:  
  
 A. A certain “discotheque [DIS-koh-tek] Juliet teenage dream” is the subject of this 2014 hit single by Walk the Moon.  
  
 answer: Shut Up and Dance (accept SHUT UP + DANCE)  
  
 B. Colby O'Donis was featured on this 2008 debut single by Lady Gaga, in which she implores someone to “spin that record, baby.”  
  
 answer: Just Dance  
  
 C. “Stars Dance” was the name of a song on this singer's third album with her band The Scene. Other songs on the album included “Forget Forever” and “Come & Get It.”  
  
 answer: Selena (Marie) Gomez (accept Selena Gomez & the Scene)  
  
 <TRASH, POP CULT>

17. **This country employed the Me [M-E] 163 Komet, the only rocket-powered fighter in history. The ”buzz bomb” was a nickname for a pulsejet-powered, auto-piloted ”flying bomb” designed by this country, which deployed Junkers Stuka [YUN-kers STOO-kah] dive bombers as part of its Condor Legion in the Spanish Civil War. (\*)** Wernher von Braun designed the V-2 rocket for this country. For 10 points—name this country whose airforce was the Luftwaffe [LOOFT-vah-fuh].  
  
 answer: (Nazi) Germany (or Deutschland or Third Reich or Deutsches Reich or Drittes Reich)  
  
 <HIST, EURO>

7. For 10 points each—name these 19th-century speakers of the House:  
  
 A. This Kentuckian who lost the 1832 and 1844 presidential elections served three different stints as speaker.  
  
 answer: Henry Clay (Sr.)  
  
 B. This “Continental Liar” from Maine served as speaker from 1869 to 1875, was secretary of state under three presidents, and lost the 1884 presidential election to Grover Cleveland.  
  
 answer: James G(illespie) Blaine  
  
 C. This Civil War-era speaker from Indiana was Ulysses S. Grant's first vice president. He was forced to resign in the Crédit Mobilier [moh-beel-yay] scandal.  
  
 answer: Schuyler Colfax [SKYE-lur KOHL-faks]  
  
 <HIST, AMER>

18. **In Karl Marx's Theses on Feuerbach [FOY-er-“bach”], people who study this topic are criticized for having only “interpreted the world” instead of changing it. Diogenes Laërtius [dye-AH-jeh-neez lay-“AIR”-tee-us] wrote “The Lives and Opinions of Eminent” people who practiced this discipline, including (\*)** Thales [THAY-leez] of Miletus, who is said to be the first person to study it. For 10 points—identify this discipline whose name is Greek for “love of wisdom,” whose fields include ethics.  
answer: philosophy (accept philosophers)  
<RMPSS, PHIL>

0.: These devices can be characterized by the type of their frame, as well as by the source of their effect. For 10 points each—  
  
   
  
 Name these devices, which cut or shape pieces of material by pushing down on them. Johannes [yoh-HAH-nes] Gutenberg invented a version of this kind of device used for printing.  
  
 presses (accept printing presses)  
  
 A simple press can be built to have the required force amplified by one of these devices, another version of which is used to lift cars to change tires.  
  
 Jacks  
  
 Jacks are generally based on this simple machine in which an inclined plane is wrapped around a cylinder.  
  
 screw  
  
 <SCI, PHYS>

19. **As a light source, an incandescent bulb has a value of about 2 percent for this quantity; it is about 100 percent as a heat source. Sadi Carnot [kar-NOH] showed it could not exceed 1 minus the ratio of reservoir temperatures for a heat engine. In engineering, it is the ratio of actual (\*)** mechanical advantage to ideal mechanical advantage. For 10 points—name this ratio of input power to output power denoted by the Greek letter eta.  
answer: efficiency (accept electrical efficiency or thermodynamic efficiency or mechanical efficiency)  
<SCI, PHYS>

4. In one poem, this author tells his father ”curse, bless me now with your fierce tears.” For 10 points each—  
  
 A. Name this writer of the poem “Do not go gentle into that good night.”  
  
 answer: Dylan (Marlais) Thomas  
  
 B. In “Do not go gentle into that good night,” Thomas urged his father to “rage, rage” against the “dying” of this phenomenon.  
  
 answer: (the) light (accept Rage, rage, against the dying of the light)  
  
 C. Thomas was born in Swansea, a city in this constituent country of the United Kingdom.  
  
 answer: Wales (or Cymru [“COME”-ree])  
  
 <LIT, BRIT>