QQBC Packet 3

1.  **This creature was fed cake soaked in wine by the Sibyl of Cumae to help Aeneas pass it, and this creature so terrified King Eurystheus that he hid in a jar. This brother of Orthrus was unable to pierce the Nemean Lion skin worn by (\*)** Heracles during his twelfth labor, during which this creature was captured from Hades. For ten points, name this three-headed guard dog of the Greek underworld.  
  
ANSWER: Cerberus  
  
<RMPSS, MYTH>

After Martin Seligman administered these to dogs, the dogs developed a condition called "learned helplessness." For 10 points each,  
  
[10] Identify this technique often used to treat bipolar disorder and major depression, in which an electric current is passed through the brain.  
  
Answer: electric shocks (accept electroconvulsive therapy or ECT; accept electroshock therapy)  
  
[10] In this American psychologist's "obedience to authority" experiment at Yale, participants were told to give increasingly intense electric shocks to a group of "learners" to test how long they would follow orders.  
  
Answer: Stanley Milgram  
  
[10] In another Milgram experiment, Milgram found that people were more likely to provide aid when they found one of these objects addressed to an individual or an organization than they were if these objects were addressed to "Friends of the Nazi Party."  
  
Answer: lost letters experiment (accept descriptions, such as lost mail)  
  
<RMPSS, SOC SCI>

2.  **Toru Okada searches for one of these creatures in The Wind-Up Bird Chronicle, and one of these animals breaks a pickle dish in Ethan Frome. Okonkwo defeats a wrestler named for this animal in Things Fall Apart. In Romeo and Juliet, Tybalt is called the (\*)** "prince" of these animals, and Amy Tan wrote about a "Chinese Siamese" one of these animals. For 10 points, name these animals which include a "Cheshire" one in Alice in Wonderland.  
  
Answer: cats (accept felis catus or felis silvestris catus; accept logical slang for cats, such as kitty; prompt on "feline")  
  
<LIT, OTHER>

In June 1940, this man proclaimed “we shall defend our island, whatever the cost may be. We shall fight on the beaches...” For ten points each,  
  
Name this British Prime Minister. ANSWER: Sir Winston Churchill  
  
Churchill’s “We shall fight on the beaches” speech was given after Operation Dynamo, a week-long evacuation of Allied forces off the continent from this French harbor town. Hundreds of thousands of troops were rescued, many by “little boats.”  
  
ANSWER: Dunkirk (accept extra information, like the Dunkirk evacuation)  
  
In a speech two weeks later, Churchill noted that “...the Battle of France is over, the Battle of Britain is about to begin.” The speech encouraged listeners with the declaration “Let us...bear ourselves that if the British Commonwealth and Empire lasts for a thousand years, men will still say” this five word phrase.  
  
ANSWER: “This was their finest hour.”  
  
<HIST, EURO>

3.  **A work in C minor by this composer ends with 29 bars of loud C major chords. An earlier work by this composer includes a second movement funeral march and had its dedication ripped apart when Napoleon named himself Emperor; that piece, (\*)** Eroica, was this man’s third symphony. For ten points, name this composer whose fifth symphony opens with a famous “short-short-short-long” motif and was written before he became completely deaf.  
  
ANSWER: Ludwig van Beethoven  
  
 <FA, AUDIO>

Sailors in one of this man's poems are killed for sacrificing Helios's cows and stuff their ears with cotton to avoid the song of the sirens. For 1O points each,  
  
[1O] Name this ancient poet, who wrote the Iliad and the Odyssey.  
  
Answer: Homeros  
  
[1O] In Homer's Odyssey, this young man is the son of Odysseus and Penelope. When his father returns from war, this man helps kill Penelope's suitors.  
  
Answer: Telemachus  
  
[1O] Odysseus uses the drug moly to fend off the advances of the witch Circe, who turns Odysseus's men into these animals.  
  
Answer: pigs (accept swine)  
  
<LIT, OTHER>

4.  **This civilization's language, Nahuatl, was recorded in the Florentine Codex. The "Massacre in the Great Temple" occurred in this civilization's capital, and this civilization's (\*)** Jaguar Warriors wielded swords with obsidian blades. This civilization made use of chinampas on Lake Texcoco, which was also home to Tenochtitlan. For 10 points, name this Mesoamerican civilization who were led by Montezuma. Answer: Aztecs  
  
<HIST, WORLD>

This network stretched from the South to Canada. For 10 points each,  
  
[10] Name this network of safehouses whose "conductors" transported slaves to freedom.  
  
Answer: The Underground Railroad  
  
[10] This slave nicknamed "Minty" led over ten groups through the Underground Railroad. During the trip, she allegedly threatened any slaves that tried to return to the South.  
  
Answer: Harriet Tubman (accept Araminta Ross)  
  
[10] Another conductor on the Underground Railroad was this African-American abolitionist who wrote My Bondage and My Freedom.  
  
Answer: Frederick Douglass (accept Frederick Augustus Washington Bailey)  
  
<HIST, AMER>

5.  **This man created a 202-foot-tall memorial near Pudding Lane to commemorate a disaster that led this man to rebuild fifty-one churches. This man designed the Sheldonian Theater and the Royal Observatory in (\*)** Greenwich, and this architect created a whispering gallery in the dome of a building designed to emulate a Greek cross, which sits on Ludgate Hill. For ten points, name this English architect who, after the Great fire of 1666, designed St Paul’s Cathedral in London.  
  
ANSWER: Sir Christopher Wren  
  
<FA, OTHER>

This system of the body can be divided into the peripheral and central components. For 10 points each,  
  
[10] Name this system that initiates movement by transmitting signals to the muscles. It includes the brain and spinal cord.  
  
Answer: nervous system  
  
[10] Each nerve cell consists of multiple dendrites that lead to a soma which passes signals to this long, slender fiber. This section of a neuron is often studied in squid where it can be 1 millimeter thick.  
  
Answer: axon  
  
[10] Also called a nerve impulse, these events transmit signals down neurons by rapidly moving ions, thereby causing a change in voltage across the cell's membrane.  
  
Answer: action potentials  
  
<SCI, BIO>

6.  **People who live on this body of water carry out the kula exchange ring, as Bronislaw Malinowski described in a book titled for the Argonauts of this body of water. Elsewhere in this body of water, teenage girls on the island of T’au were studied by (\*)** Margaret Mead. Thor Heyerdahl’s raft Kon-Tiki crossed this ocean in a test of Polynesian technology. For ten points, name this ocean where Mead worked on the book Coming of Age in Samoa.  
  
ANSWER: Pacific Ocean (accept (Argonauts of the) Western Pacific; accept South Pacific; prompt on “Solomon Sea” until “T’au” is read)  
  
<RMPSS, SOC SCI>

Stories of this ruler’s largesse include a legend that he built a mosque every Friday during one of his travels. For ten points each,  
  
Name this 14th century Mansa of the Mali Empire, best known for a legendary hajj. ANSWER: Mansa Musa (accept Musa Keita I)  
  
During his hajj, Mansa Musa spent so lavishly throughout northern Africa and the Arabian Peninsula that he temporarily destroyed the value of this precious metal. Caravans once traded this metal for salt throughout Africa.  
  
ANSWER: gold  
  
Mansa Musa’s building projects, including the University of Sankore, transformed this city into a major trading center. By the 19th century, it had fallen into such disarray and became so hard to reach that many people thought it was a mythical city.  
  
ANSWER: Timbuktu  
  
<HIST, WORLD>

7.  **By 1852, this state’s New Helvetia settlement was abandoned by all its workers after an event that inspired this state’s motto, “Eureka.” Samuel Brannan created a short-lived real estate and business empire in this state shortly after James Marshall made a (\*)** discovery in the American River at Sutter’s Mill. For ten points, name this western US state where a gold rush drew hundreds of thousands of “forty-niners” to cities like San Francisco.  
  
ANSWER: California (accept elaborations relating to the California Gold Rush)  
  
<HIST, AMER>

In Catholicism, this solemn holiday is a fast day on which no mass is observed. For ten points each,  
  
Name this holiday near the end of the Christian Holy Week. It commemorates the day of Jesus’s crucifixion. ANSWER: Good Friday (accept Holy Friday; accept Great Friday; accept Black Friday)  
  
Holy Week, which ends Lent, leads up to this important springtime Christian holiday, which celebrates Jesus’s resurrection.  
  
ANSWER: Easter Sunday (accept Pasha)  
  
The Thursday before Good Friday, which commemorates the Last Supper, is often given this name, which is thought to come from the Latin for “commandment.”  
  
ANSWER: Maundy Thursday (do not accept “Holy Thursday”)  
  
<RMPSS, REL>

8.  **In the southern hemisphere, one ecosystem of this type contains steep koppies surrounded by veld. Fescue is a common plant of this biome that has been severely degraded in the Sahel. Aardvarks and anteaters specialize in feeding from giant termite mounds in this biome. The Eurasian (\*)** steppe, Pampas, and Serengeti are examples of, for ten points, what type of ecosystem, home to wildebeest, bison, and zebras, but very few trees?  
  
ANSWER: grassland (accept savanna; accept prairie)  
  
<SCI, BIO>

Algorithms for performing this operation include “Bubble,” which checks pairs of adjacent elements and swaps if necessary. For ten points each,  
  
Name this computational task that is usually done to create ascending or descending lists out of randomly listed numbers.  
  
ANSWER: sorting (accept ordering a set)  
  
This mathematical term describes an arrangement of all the elements of a set. This term is often contrasted with combination, a similar concept that ignores the order of a set.  
  
ANSWER: permutation (prompt on “P” or “nPr”)  
  
One of the least efficient sorting functions imaginable, bogosort, simply generates every possible permutation until it lucks into the one in the desired order. If a set has n elements, there are this many total permutations for bogosort to potentially check.  
  
ANSWER: n factorial (accept n!)  
  
<SCI, OTHER>

9.  **A nuclear reactor in this country was targeted in Operation Opera. This country's "Chemical Ali" released mustard gas during the Al-Anfal campaign, and the United States' treatment of prisoners in this country led to the (\*)** Abu Ghraib scandal. This country was bombed during Operation Desert Storm, a move prompted by its invasion of Kuwait. For 10 points, name this country formerly led by Saddam Hussein from its capital, Baghdad.  
  
Answer: Republic of Iraq  
  
<HIST, WORLD>

Phillis Wheatley wrote "'Twas mercy brought me from my pagan land" in a poem about "Being Brought From Africa To America." even though she had been kidnapped and forced into this barbaric way of life. For 10 points each,  
  
[10] Name this outdated system, in which humans claimed to own other humans. Answer: slavery (accept word forms)  
  
[10] Scarlett O'Hara persuades her father to buy the slave Dilcey and her daughter, Prissy, in this Civil War-era Margaret Mitchell novel, which ends when Rhett Butler leaves Scarlett.  
  
Answer: Gone with the Wind  
  
[10] In this Toni Morrison novel, Denver tries to help her mother, Sethe, as she deals with her remorse after having killed the title girl to save the child from a life of slavery.  
  
Answer: Beloved  
  
<LIT, AMER>

10.  **An enzyme’s turnover number can be calculated as V max over this quantity for the enzyme. Colligative properties are only dependent on this quantity of the solute, and not its identity. This quantity for an acid can be determined via (\*)** titration, and pH is equal to the negative logarithm of this quantity for hydrogen ions in a given solution. For ten points, name this quantity, expressed in units of molarity or parts per million, that indicates how strong a chemical is.  
  
ANSWER: concentration  
  
<SCI, CHEM>

This man’s design for the Hancock Tower included engineering faults that allowed the building’s large panes of reflective glass to release from the building and shatter. For ten points each,  
  
Name this architect, who also used panes of glass in his designs for the Bank of China Tower in Hong Kong and the Rock and Roll Hall of Fame in Cleveland.  
  
ANSWER: I(eoh) M(ing) Pei  
  
I.M. Pei’s [”pay”s] pyramidal glass design for the Rock and Roll Hall of Fame is similar to his front entrance design for this Parisian palace-turned-art museum, which holds Leonardo da Vinci’s Virgin and Child with Saint Anne and one version of his Madonna of the Rocks.  
  
ANSWER: Muse´e du Louvre (accept Louvre Museum)  
  
In addition to Leonardo’s religious paintings, the Louvre holds this iconic portrait by Leonardo of a woman with an enigmatic smile. The Louvre has allowed researchers to carefully scan this painting, revealing that its subject may once have had visible eyebrows.  
  
ANSWER: Mona Lisa (accept La Gioconda)  
  
<FA, OTHER>

11.  **Clementine is saved from these creatures by Lee Everett in a Telltale game. In another game, a “bungee” version of one of these creatures abducts Crazy Dave and attempts to attack the player’s home, only to be stopped by (\*)** peashooters; that game is Plants vs. these creatures. A special mode in many Call of Duty games pits the player against, for ten points, what reanimated corpses who serve as the main threat of The Walking Dead?  
  
ANSWER: zombies (accept The Walking Dead; accept Walkers; prompt on “undead”; prompt on “dead”)  
  
<TRASH, POP CULT>

This actor played the title villain in The Man with the Golden Gun and acted in numerous Hammer films. For 10 points each,  
  
[10] Name this actor who portrayed Saruman in Lord of the Rings and Count Dooku in Star Wars. He passed away due to heart failure in June 2015 .  
  
Answer: Sir Christopher Frank Carandini Lee  
  
[10] Lee portrayed the Mummy and Frankenstein's monster, as well as this legendary vampire. Bela Lugosi also played this monster, who titles a namesake book by Bram Stoker.  
  
Answer: Count Dracula  
  
[10] This other vampire appeared in a 1922 F.W. Murnau film, in which Count Orlok is really this title creature. Answer: Nosferatu: A Symphony of Horror  
  
<TRASH, POP CULT>

12.  **This nation controls Mawson Peak, an active volcano on Heard Island near Antarctica. One feature off its coast stretches from Lady Elliot Island to the Torres Strait. This continent's Snowy Mountains contain its highest point, Mount Kosciuszko [koh-SHOO-skoh], and its east is split by the Great (\*)** Dividing Range. This continent contains Ayers Rock, a massive rock formation called Uluru by the Aborigines. The Great Barrier Reef surrounds, for 10 points, what island continent?  
  
Answer: Australia  
  
<GEO, GEO>

For a sufficiently thin one of these devices, the reciprocal of focal length equals the reciprocal of object distance plus the reciprocal of image distance. For ten points each,  
  
Name these optical devices that use refraction to focus light rays and produce an image. ANSWER: lenses  
  
A magnifying glass contains this type of simple lens, which causes parallel light rays to converge at a single point. Concave lenses cause light rays to diverge away from each other instead.  
  
ANSWER: biconvex lens (accept double convex; accept plano-convex; prompt on “positive lens”)  
  
If an object is placed inside the focal length of a convex lens, this kind of upright image will result. These images cannot be projected onto a screen.  
  
ANSWER: virtual image  
  
<SCI, PHYS>

13.  **In one play by this man, Chris proposes to Ann Deever, the former girlfriend of his missing brother Larry, and discovers that his father, Joe Keller, had knowingly sold faulty airplane parts. That play is All My Sons. (\*)** Giles Corey is crushed to death in this man's play about the Salem witch trials, and "attention must be paid" to Willy Loman in another work by this man. For 1O points, name this American playwright of The Crucible and Death of a Salesman.  
  
Answer: Arthur Asher Miller  
  
<LIT, AMER>

The Strait of Kerch separates this peninsula from the Russian mainland. For ten points each,  
  
Name this region, home to cities like Sevastopol and Yalta. It was annexed by Russia in 2014 after a highly questionable referendum.  
  
ANSWER: Crimea (accept the Crimean Peninsula)  
  
The Crimean peninsula was annexed by Russia from this country, where pro-Russian forces have seized buildings in eastern cities like Donetsk. The Dneiper [nee-per] River flows through this country’s capital, Kiev.  
  
ANSWER: Ukraine  
  
The Crimean peninsula juts into this large central Asian sea, which the Strait of Kerch connects to the Sea of Azov to its north. To the east of this sea are the Caucasus mountain range and, beyond that, the Caspian Sea.  
  
ANSWER: Black Sea  
  
<GEO, GEO>

14.  **A number is algebraic if it can be the solution to one of these functions with integer coefficients. Horner’s method simplifies calculations of these functions, usually by employing synthetic division on them. Four to the x power is (\*)** not one of these expressions because the variable is in the exponent. For ten points, give this term for mathematical expressions like x squared plus 3, a term that comes from the Greek for “many named.”  
  
ANSWER: polynomials (accept polynomial equation, function, expression, etc.)  
  
<SCI, OTHER>

For ten points each, give the following about military theory.  
  
Sun Tzu, a general during China’s ancient Spring and Autumn Period, wrote this influential treatise on military tactics. Its 13 chapters include entries on using spies and moving armies.  
  
ANSWER: The Art of War  
  
In his treatise On War, 19th century Prussian general Carl von Clausewitz described this concept, the uncertainty that shrouds war. Applications of this idea may include a lack of intelligence about the enemy forces or, in a more literal sense, about the terrain of a battlefield.  
  
ANSWER: fog of war  
  
Von Clausewitz’s understanding of war was developed while he fought with the Russians in the Seventh Coalition against this French emperor. Clausewitz wasn’t able to stop him from winning at Ligny [li-NEE], but the Prussians did help beat this man at Waterloo.  
  
ANSWER: Napoleon Bonaparte (accept Napoleon I; do not accept “Napoleon III” or “Louis-Napoleon”)  
  
<RMPSS, PHIL>

15.  **In this author's first novel, Zeebo defends two children against Lula in First Purchase Church. In one of this author's works, Miss Maudie mocks Stephanie Crawford when she claims to have seen a man who leaves trinkets in a tree for (\*)** Jem and his sister. This author's recent second novel concerns the adult Jean Louise, who returns to Maycomb, Alabama to visit her father, Atticus Finch. For 10 points, name this author of Go Set a Wat man and o Kill a Mo ingbird.  
  
Answer: (Nelle) Harper Lee  
  
<LIT, AMER>

Both the Russian Kola Superdeep and Japanese Chikyu Hakken projects attempted to drill down more than 12 kilometers to reach this region. For ten points each,  
  
Name this semi-fluid layer of the Earth, rich in the mineral olivine, that is located between the crust and outer core. ANSWER: mantle  
  
The boundary between the crust and the mantle is this discontinuity, named after a Croatian seismologist, where the speed of P-waves changes.  
  
ANSWER: Mohorovic˘ic´ [mo-ho-ro-vitch-itch] discontinuity (accept Moho)  
  
The absence of the Moho in some areas of the Pacific may have helped form volcanic island arcs like the Solomons, Ryukyus, and this long Alaskan chain at the southern edge of the Bering Sea.  
  
ANSWER: Aleutian Islands  
  
<SCI, OTHER>

16.  **This man chaired a militant group formed from a banned political party after 69 people were killed in the Sharpeville massacre. This leader of the Spear of the Nation wrote a memoir, Long Walk to Freedom, that describes his 27 years of (\*)** imprisonment on Robben Island near Cape Town. The African National Congress was once led by, for ten points, what opponent of apartheid and first black president of South Africa?  
  
ANSWER: Nelson Rolihlahla Mandela  
  
<HIST, WORLD>

This painter’s painstakingly realistic portraits have inspired suggestions that he painted onto images projected by a camera obscura. For ten points each,  
  
Name this Dutch Golden Age painter, whose portraits includes ones of a Milkmaid, a Geographer, and an  
  
Astronomer.  
  
ANSWER: Jan Vermeer (accept Johan or Johannes instead of Jan)  
  
Vermeer painted a vast, cloudy sky over a harbour and the blue and red roofs in a View of this Dutch city, which was Vermeer’s hometown.  
  
ANSWER: View of Delft (accept Gezicht op Delft)  
  
This painting by Vermeer shows a close view against a black backdrop, bringing the viewer’s focus to a young woman wearing a blue and yellow turban, with a title jewelry hanging from her ear.  
  
ANSWER: Girl with a Pearl Earring (accept Meisje met de parel)  
  
<FA, VISUAL>

17.  **This character decides to die in Colonus in one work. In another work, he was found as a baby on Kithairon with a "spike through his feet", and was raised by King Polybus of Corinth. In a play named for this man, (\*)** Creon describes how this father of Polynices ["polly"-nye-seez] and Antigone [an-TIH-guh-nee] answered the Sphinx's riddle, saving the city of Thebes. For 10 points, name this husband of Jocasta, who killed his father and married his mother.  
  
Answer: Oedipus  
  
<RMPSS, MYTH>

The protagonist of this work is described as a “prince of yesterday” and a “fools’ pope.” For ten points each, Name this Victor Hugo novel about Quasimodo, the title deformed bell-ringer of a Paris cathedral.  
  
ANSWER: Hunchback of Notre Dame (accept Notre-Dame de Paris)  
  
Quasimodo falls deeply in love with this young girl who was switched with him at birth by the Romani. This woman is arrested for witchcraft while performing with her goat, Djali.  
  
ANSWER: La Esmeralda (accept Agne`s)  
  
Esmeralda is considered a demoness by this Archdeacon of Notre Dame. This character adopts Quasimodo and orders him to kidnap Esmeralda.  
  
ANSWER: Claude Frollo  
  
<LIT, EURO>

18.  **The 1610 observation of this body’s phases was the first solid proof of heliocentrism. This body, which was called Hesperus when it appeared as the Evening Star, has surface features called Maxwell Montes, Lakshmi Planum, and Ishtar Terra that are (\*)** obscured by a permanent cover of sulfuric acid clouds. A 96% carbon dioxide atmosphere led to a runaway greenhouse effect on, for ten points, what second planet in the Solar System?  
  
ANSWER: Venus  
  
<SCI, OTHER>

During this war, the submarine H.L. Hunley sank twice during testing and once more in a real attack. For ten points each, Name this war in which the Monitor and Merrimack, two ironclads, clashed at Hampton Roads.   
  
ANSWER: American Civil War  
  
In an attempt to end the Civil War, Winfield Scott developed this plan to economically “strangle” the South. This plan, commonly depicted in newspapers as a snake, was a massive blockade of every Southern port.  
  
ANSWER: Anaconda Plan  
  
A key aspect of the Anaconda Plan was to take complete control of the Mississippi River by seizing this city. David Farragut captured this city without a fight; as a result, historic buildings in its French Quarter survived the war.  
  
ANSWER: New Orleans  
  
<HIST, AMER>

19.  **The protagonist of one novel by this author descends into an Icelandic volcano with his nephew Axel. This creator of Otto Lidenbrock wrote a novel about Phileas Fogg winning a wager with the help of (\*)** Passepartout with the assistance of time zones. In another novel by this author, Nemo captains the Nautilus submarine. For ten points, name this author of A Journey to the Center of the Earth, Around the World in 80 Days, and 20,000 Leagues Under the Sea.  
  
ANSWER: Jules Gabriel Verne  
  
<LIT, EURO>

Consider a train traveling along a perfectly circular track at a constant speed. For ten points each,  
  
Dividing the train’s speed by the radius of the track gives this quantity, usually expressed in radians per second. ANSWER: angular velocity (do not prompt on “velocity”)  
  
If the train is moving counter-clockwise, then the angular velocity vector points straight up according to this rule, which relies on the curl of the fingers and the direction of the thumb.  
  
ANSWER: right-hand rule  
  
Any passengers aboard the train will feel pulled toward the outside of the track because of this fictitious force directed away from the axis of rotation.  
  
ANSWER: centrifugal force (do not accept “centripetal” force)  
  
<SCI, PHYS>

20.  **The Feit-Thompson theorem proved that all finite groups with this type of order are solvable. Functions with this property can be written in the form "f of x plus f of negative x equals zero." No (\*)** perfect numbers have yet been discovered with this property. Functions with this property have rotational symmetry about the origin, and numbers with this property are congruent to one, modulo two. For 10 points, name this property that prevents a number from being divisible by two.  
  
Answer: odd  
  
<SCI, OTHER>

For 10 points each, answer the following about a poem that concerns a creature that is "burning bright / in the forests of the night."  
  
[10] Name this poem about a title big cat, which asks "what immortal hand or eye / dare frame thy fearful symmetry?"  
  
Answer: The Tyger  
  
[10] This author wrote "The Tyger" as part of his Songs of Experience, and included a companion poem about a meeker creature in his Songs of Innocence.  
  
Answer: William Blake  
  
[10] This companion piece to "The Tyger" asks a creature with a "tender voice" and "softest clothing," "dost thou know who made thee?"  
  
Answer: The Lamb  
  
<LIT, BRIT>