**VHSL Regular Season 2016-2017 - Round 13 - First Period, Fifteen Tossups**

1. A film from this country ends with a freeze-frame on the face of the juvenile delinquent protagonist after he runs away from his correctional facility to see the ocean for he first time. Classic films from this country's "New Wave" include *Breathless* and *The 400 Blows.* For 10 points, name this country whose directors include Jean-Luc Godard (goh-DARD) and Francois Truffaut (troo-FOE).
ANSWER: **France**

2. In a novel by this author, classes on Elvis Presley are taught by one of the protagonist's colleagues, Murray Jay Siskind. He also created the waste management executive Nick Shay. The Airborne Toxic Event occurs in this author's novel about Professor of Hitler Studies Jack Gladney. For 10 points, name this postmodernist American writer, the author of *Underworld* and *White Noise*.
ANSWER: Don **DeLillo**

3. This Biblical character makes a journey to Jaffa, intending to travel by sea to Tarshish. A plant that is providing shelter to this man is bitten by a worm, exposing him to the full force of the sun. He is tasked by God to preach to the people of Nineveh, but he instead travels the other direction and is thrown overboard by a sailing crew to stop a raging storm. For 10 points, name this prophet who then spends three days in the belly of a whale-like fish.
ANSWER: **Jonah** [or **Jonas**]

4. In this play, the protagonist escapes his captors when they remove his bonds to let him steer a boat through a storm on Lake Lucerne. The title character of this play is arrested for refusing to salute a hat belonging to the tyrannical governor Gessler. For 10 points, name this play by Friedrich Schiller about a Swiss marksman who is forced to use a crossbow to shoot an apple from his son's head.
ANSWER: ***William Tell*** [or ***Wilhelm Tell***]

5. Red hills are juxtaposed against the title blue animals of this type in a Franz Marc painting. This is the only animal in Anthony van Dyck's *Charles I at the Hunt*. This animal lifts one leg above the swooning title figure in Caravaggio's *The Conversion of St. Paul*. For 10 points, name this animal featured in *Napoleon Crossing the Alps*, ridden by people in equestrian portraits.
ANSWER: **horse**s

6. A riot in this city began after a black youth was killed while swimming after being hit with a rock. That riot here took place during the "Red Summer" of 1919. Ellen Gates Starr and Jane Addams founded Hull House in this city to help immigrants. Seven men connected with organized crime were murdered here during the 1929 Saint Valentine's Day Massacre. For 10 points, gangsters like Al Capone dominated what Illinois city?
ANSWER: **Chicago**

7. The peak energy emitted by these objects is determined by Wien's (VEEN's) law. A model of these objects predicted that they gave off infinite energy at very small wavelengths, the "ultraviolet catastrophe" intrinsic to the Rayleigh-Jeans law. A correct model of these objects was proposed by Max Planck. For 10 points, what theoretical objects absorb all incoming radiation uniformly, an attribute that would result in them having their namesake color?
ANSWER: **black bodies** [or **black body**]

8. After defeating this figure, a man collected this figure's remains and returned to the island of Seriphos to prevent King Polydectes from marrying his mother. A body part from this figure was used to make the Aegis, a shield belonging to Athena. This sister of Stheno (STEFF-uh-NO) and Euryale (YURRI-awl) had the power to petrify those who looked at her gaze. For 10 points, name this monster who had snakes for hair, a Gorgon that was slain by Perseus.
ANSWER: **Medusa**

9. This island group is at the southern end of a railway financed by Henry Flagler. Much of this island group is connected by the Seven Mile Bridge. This island group includes Dry Tortugas National Park and a Conch Republic established in 1982. Harry Truman and Ernest Hemingway had homes on an island in this archipelago that claims to be the continental U.S.'s southernmost point. For 10 points, name this island group off the southern coast of Florida.
ANSWER: Florida **Keys**

10. At the age of 10, this athlete began to be coached by his long-time mentor, Bob Bowman. In 2009, this man was dropped by his sponsor Kellogg's after a photo was published showing him with a pipe used to smoke marijuana. In 2008, this man, the "Baltimore Bullet," broke Mark Spitz's record for first-place finishes while competing at the Beijing games. For 10 points, what swimmer has won the most gold medals in Olympic history?
ANSWER: Michael Fred **Phelps** II

11. A character created by this author wanders with gypsies as a young child after being born to a convict in Newgate Prison. This author of *Moll Flanders* was inspired by the story of Alexander Selkirk to write a novel about a man who befriends a cannibal he names Friday while stranded on an island. For 10 points, name this novelist who wrote about a castaway in *Robinson Crusoe.*
ANSWER: Daniel **Defoe**

12. This man's wife, Edith, took over many of his executive duties after he suffered a stroke. He gave a speech saying the "world must be made safe for democracy." Henry Cabot Lodge and many Republicans strongly opposed a treaty this man proposed. This man won the presidency by defeating the Bull Moose Party under the Progressive ex-President Teddy Roosevelt. For 10 points, what U.S. President issued his "Fourteen Points" after World War I?
ANSWER: Woodrow **Wilson** [or Thomas Woodrow **Wilson**]

13. These events were the subject of the book *Wonders of the Invisible World*. They were probably sparked by land disputes between families like the Putnams and Nurses. Increase Mather discouraged the use of "spectral evidence" during these events. During them, a slave named Tituba was accused by Abigail Williams and other young girls. For 10 points, what 1690's events in Massachusetts resulted in mass executions for supposedly satanic actions?
ANSWER: **Salem witch** trials [prompt on witch trials; prompt on witch hunts]

14. There is at least one of a condition named for this mathematician if one allows mixed strategies in a finite game. Given a set of strategies in a non-cooperative game, if no player can improve the payoff by changing his strategy, the set of strategies is in an "equilibrium" named for this mathematician—which, for the prisoner's dilemma, is both prisoners choosing to defect. For 10 points, what game theorist's struggle with schizophrenia was depicted in *A Beautiful Mind*?
ANSWER: John **Nash** [or John Forbes **Nash**, Jr.]

15. Drugs inhibiting HMG-Co-A reductase are mainly used to decrease amounts of this compound. It is the starting point for the synthesis of glucocorticoids (glu-ko-CORE-tih-koyds), mineralocorticoids (min-uh-RAL-oh-core-tih-koyds), and all other steroid hormones. Statins (STA-tins) lower levels of this compound. Transporters of it called HDL and LDL are known as its "good" and "bad" types. For 10 points, name this structural component of the cell membrane.
ANSWER: **cholesterol**

 **VHSL Regular Season 2016-2017 - Round 13 - Directed Period**

1A. The existence of perpetual motion machines is forbidden by the conservation law for what property of matter, which can be defined as mass times speed of light squared?
ANSWER: **energy**

1B. What rapper rose to fame when his song "Panda" was featured on Kanye West's song "Father Stretch My Hands Pt.2"?
ANSWER: **Desiigner** [or Sidney Royel **Selby** III]

2A. Edmond Dantes (DON-tays) is the vengeful protagonist of what novel by Alexandre Dumas?
ANSWER: *The* ***Count of Monte Cristo*** [or *Le* ***Comte de Monte-Cristo***]

2B. A meeting in what city led to an agreement hailed as "peace for our time" by Neville Chamberlain?
ANSWER: **Munich**

3A. "This is a 20-second calculation question. What is the domain of the function "one plus the inverse sine of x?"
ANSWER: **[-1,1]** [or the **closed interval from -1 to 1**; or x is **between -1 and 1, inclusive**; prompt on x is between -1 to 1 without the words "closed" or "inclusive"]

3B. This is a 20-second calculation question. Patrick is told he will be given 3 bars of gold if he flips a coin and it lands on heads, and 1 bar if it lands on tails. If Patrick flips a fair coin, what is his expected value in terms of gold bars?
ANSWER: **2**

4A. What composer of the operetta *Die Fledermaus* (FLEE-derr-MOSS) was known for writing "light music" such as the waltz *On the Beautiful Blue Danube*?
ANSWER: Johann **Strauss II** [or Johann **Strauss the Younger**; prompt on Strauss; prompt on Johann Strauss]

4B. What Greek city destroyed by the Macedonians used an elite military force consisting of pairs of male lovers known as the Sacred Band?
ANSWER: **Thebes**

5A. In French, what two words are added before and after a verb in order to negate it?
ANSWER: ***ne*** (nuh) and ***pas*** (pah)

5B. What Liberal Party leader succeeded Tony Abbott as Australian Prime Minister in September 2015?
ANSWER: Malcolm **Turnbull**

6A. What Muslim empire founded by Osman alarmed Europeans when its ruler, Murad I, conquered much territory in the Balkans in the 1300's?
ANSWER: **Ottoman** Empire [or **Ottoman** Turkey; prompt on Turkey]

6B. Neutrophils (NEW-tro-fills) belong to what large class of immune cells that can be divided into myeloid (MY-uh-loyd) and lymphoid ("lymph"-oyd) lineages?
ANSWER: **white blood cell**s [or **WBC**s; or **leukocyte**s; prompt on blood cells]

7A. What languages common in the Caribbean are formed by mixing two existing languages, but are more developed than pidgins?
ANSWER: **creole**s [or **patois** (puh-TWAH)]

7B. If something is lachrymiform (LACK-ruh-MY-form), it is shaped like what kind of object?
ANSWER: **tear**s

8A. This is a 30-second calculation question. As a decimal, what is the area of a triangle with two sides of 5 and 6 centimeters and an angle between them of 30 degrees?
ANSWER: **7.5 centimeters-squared**

8B. This is a 30-second calculation question. Find the solution of the system of equations consisting of y equals one half x plus six and x plus four y equals fifty-four.
ANSWER: **ten comma eleven** or **x equals ten and y equals eleven**

9A. In what Jane Austen novel does the title would-be matchmaker end up marrying Mr. Knightley?
ANSWER: ***Emma***

9B. What title is given to key leaders in Tibetan Buddhism, including the second-ranking "Panchen," and is the second word in the title of another man whose personal name is Tenzin Gyatso?
ANSWER: **lama** [do not accept "Dalai Lama"]

10A. What term describes a polygon whose interior angles are all less than 180 degrees?
ANSWER: **convex**

10B. What virtuous daughter of the title character of Shakespeare's *King Lear* is banished for refusing to participate in a love test?
ANSWER: **Cordelia**

 **VHSL Regular Season 2016-2017 - Round 13 - Third Period, Fifteen Tossups**

1. The auction format for these objects belonging to the United States government was changed from multi-price to single-price in 1992. The zero-coupon variety of these objects pays no regular interest, instead only paying out principal. Distressed companies may issue their junk variety. For 10 points, name these financial instruments that indicate a debt to be repaid at the date of maturity.
ANSWER: **bond**s [prompt on notes; prompt on treasuries]

2. The interior of these structures is composed of spongy and palisade (PAL-uh-sayde) layers. These structures are cut up and fed to fungus farms by a namesake type of ant. Stomata (sto-MAH-tuh) are mainly found on the surface of these structures. These plant structures consist of a petiole (PET-ee-ohl) and a blade supplied by veins. For 10 points, name these primary photosynthetic organs in plants that may fall off a tree in autumn.
ANSWER: **leaves** [or **leaf**]

3. The puzzling fact that this interaction's force-carrying bosons are so massive is explained by the Higgs mechanism. Madame Wu demonstrated that this interaction violates parity symmetry. It is mediated by the W and Z bosons and is responsible for the type of decay that turns carbon-14 into nitrogen-14, an example of beta decay. For 10 points, what fundamental force is named for the fact that it is several orders of magnitude less powerful than the strong force.
ANSWER: **weak** force [or **weak** interaction]

4. Protesters were killed in this country during the Sharpeville Massacre. A future leader of this country said he was prepared to die during the Rivonia Trial and went on to lead the ANC party. Two leaders from here jointly won a Nobel Peace Prize, including F.W. De Klerk and a man who had spent years imprisoned at Robben Island. For 10 points, what country led by Nelson Mandela once imposed segregation through its policy of apartheid?
ANSWER: Republic of **South Africa**

5. In a 1922 film, a scene showing a carriage ride towards the home of a character of this type uses the film negatives instead of positives. In that German Expressionist film directed by F. W. Murnau, Max Schreck plays a character of this type named Orlok. For 10 points, name these creatures, one of whom is the villain of *Nosferatu* (NOHS-fair-AH-too), and one of whom is played by Bela Lugosi in Tod Browning's *Dracula.*
ANSWER: **vampire**s

6. The presidency of a member of this party featured a right-wing Prime Minister in an arrangement known as "cohabitation." A member of this party resigned as director of the IMF amid allegations that he sexually assaulted a hotel employee. Dominique Strauss-Kahn was a member of this party, whose first member to become president was Francois Mitterrand. For 10 points, what left-wing French party is led by current president Francois Hollande?
ANSWER: **Socialist** Party of France [or **Parti socialiste**; or **PS**]

7. The governor of this state delivered chocolate chip cookies to protesters opposed to an abortion law. Moral Mondays are civil disobedience movements begun in this state. The NBA moved the All-Star Game away from this state after a law championed by its governor, Pat McCrory, passed in 2016. For 10 points, what state passed the Public Facilities Privacy and Security Act, forcing transgendered people to use restrooms consistent with their gender identity?
ANSWER: **North Carolina**

8. Particles obeying the Pauli exclusion principle follow a set of statistics named for this physicist and Dirac. This physicist popularized the name for the neutrino, which means "little neutral one" in his native tongue. This physicist supervised the creation of the first sustained nuclear chain reaction and names a class of particles with half-integer spin. For 10 points, which Italian-born physicist names a particle accelerator lab outside of Chicago?
ANSWER: Enrico **Fermi** (FAIR-me)

9. A song by this band includes the line "and now my fears / they come to me in threes" and begins "in many ways they'll miss the good old days." Its lead singer is featured in the Lonely Island song "Boombox." This band behind the non-Beatles song "Someday" sings "please don't slow me down / if I'm going too fast" and repeats the line "the night's not over / you're not trying hard enough" in another song. For 10 points, name this rock band who recorded "Reptilia."
ANSWER: The **Strokes**

10. This god once transformed into a cuckoo to seduce his then future wife. With Mnemosyne (neh-MAH-suh-knee), the personification of memory, this god fathered the nine Muses. A legend from Crete holds that this god transformed into a white bull to abduct the maiden Europa. The eagle was the symbol of this god, who was known for his infidelity to his wife Hera. For 10 points, name this Greek god of thunder and lightning.
ANSWER: **Zeus**

11. This author wrote a review of the work of a fictional modern French writer who recreated a Spanish masterpiece in "Pierre Menard, Author of the *Quixote* (KEY-ho-TAY)." In a short story by this author, a Chinese spy for the Germans in World War I communicates the location of an artillery park to his superiors by murdering the scholar Stephen Albert. For 10 points, name this blind writer from Argentina who wrote stories including "The Garden of Forking Paths."
ANSWER: Jorge Luis **Borges** (HOR-hay loo-EES BOR-hays)

12. This politician's campaign strategist, James Carville, coined his slogan "It's the economy, stupid!" He boosted popularity by playing his saxophone on Arsenio Hall's TV show. During this man's presidency, NAFTA was signed into law, and independent prosecutor Kenneth Starr investigated his numerous scandals. For 10 points, what U.S. President was impeached amid investigation of his relationship with intern Monica Lewinsky?
ANSWER: William Jefferson "Bill" **Clinton** [or William Jefferson **Blythe** III]

13. Four granite sculptures found in the city of Guisando are usually named after these animals. An event involving these animals is divided into thirds named for lances, sticks, and death. Participants in the most popular portion of the San Fermín festival run away from these animals. Matadors wave capes to anger these animals. For 10 points, name these violent animals that crowds run away from in Pamplona, Spain.
ANSWER: **bull**s [prompt on cattle; do not accept "cows"]

14. The protagonist of this novel repeatedly visits a pianist named Mademoiselle Reisz. Unhappy with her husband Leonce, the protagonist of this novel falls in love with a man who promptly leaves Louisiana to go to Mexico. After being abandoned by Robert Lebrun, this novel's protagonist walks into the sea and drowns. For 10 points, name this novel about Edna Pontellier written by Kate Chopin (sho-PAN).
ANSWER: *The* ***Awakening***

15. The main method for producing this molecule, which is not nitrogen or methane, is by fractional distillation of natural gas. Pierre Janssen discovered this element by finding its D3 yellow, spectral line—close to those of sodium—in the Sun's chromosphere. This element's nucleus is equivalent to an alpha particle. Because this gas is lighter than air and is not flammable, it is commonly used in airships. For 10 points, what noble gas has the chemical symbol He?
ANSWER: **helium** [or **He** until it is read]

 **VHSL Regular Season 2016-2017 - Round 13 - Tiebreaker Questions**

1. Pausanias states that a sculptor named Hermogenes (her-MAH-jaw-knees) made a large statue of this Greek goddess for Kythera, an island home to a large cult devoted to her. Hesiod states that this goddess was born from foam after her father Uranus was attacked with a sickle. This fertility goddess was sometimes depicted residing in a half-shell and was usually held to be the mother of Eros. For 10 points, name this Greek equivalent of Venus, the goddess of love.
ANSWER: **Aphrodite**

2. This country imposed harsh gun control laws after 35 people were killed in a 1996 massacre. Gold miners staged a revolt in this modern-day country in the Eureka Stockade Rebellion. Children taken away by the government here were called the "Stolen Generations." Botany Bay was founded in this modern-day country after a landing by James Cook. For 10 points, what former English colony finally apologized in 2008 to its indigenous aboriginal population?
ANSWER: Commonwealth of **Australia**

3. A poem of this type addresses a "light-winged Dryad of the trees" and begins, "My heart aches, and a drowsy numbness pains my sense." Another poem of this type addresses a "sylvan historian" and "still unravished bride of quietness" that tells mankind, "Beauty is truth, truth beauty." For 10 points, name this type of poem, exemplified by John Keats's addressed "to a Nightingale" and "on a Grecian Urn."
ANSWER: **ode**

4. These devices use mirrors to create a resonant cavity, which allows a standing wave to form. Pumping these devices transfers energy to their gain medium, causing more electrons to be in an excited state than the ground state. These devices use stimulated emission to produce monochromatic, collimated, coherent beams of light. For 10 points, what devices can be found in namesake pointing devices?
ANSWER: **laser**s [or **light amplification by stimulated emission of radiation** until "stimulated emission" is read]

5. This topic is sometimes divided into the English-speaking "analytic" tradition and the European "continental" tradition. This discipline's value lies in studying for the "sake of the questions" that it poses according to a Bertrand Russell book about its "problems." This discipline's name means "love of knowledge," and its various fields includes logic. For 10 points, name this discipline whose issues include "What is the meaning of life?" and "What does it mean to be good?"
ANSWER: **philosophy**

The probability that lightning strikes a house during a storm is one-half. If three storms occur, what is the probability that the house is struck by lightning in exactly two of the three storms?
ANSWER: **3/8** [or **0.375**]

Presidential nominee Al Smith was the first major party nominee to practice what religion, which was also the faith of John F. Kennedy?
ANSWER: Roman **Catholic**ism