**VHSL Regular Season 2016-2017 - Round 06 - First Period, Fifteen Tossups**

1. In 2016, a college student in this country died after receiving experimental treatment for synovial sarcoma, a treatment he learned about from a promoted result on a search engine here called Baidu. In the far west of this country, a separatist movement is led by Uyghurs (WEE-gurrs), who want to break Xinjiang (SHIN-jong) province away from this country. For 10 points, what Asian country has the world's largest standing army?
ANSWER: People's Republic of **China** [or **PRC**; do not accept "Republic of China"]

2. A mythical creature in this country is a reptilian hybrid that looks like a dog and eats people in the swamps. This home of the bunyip was created by a deity identified by Alfred Radcliffe-Brown as the powerful Rainbow Serpent. Native peoples in this country conceive of a strange "time out of time" that is also known as the Dreamtime. For 10 points, what country's aboriginal natives tell myths about arriving, frequently destructive Englishmen?
ANSWER: Commonwealth of **Australia**

3. The protagonist of this poem brags about the sea monsters he killed when it is pointed out that he lost a swimming contest to Breca (BREK-uh). This poem's protagonist is supported by Wiglaf (WIG-lahf) before he dies fighting a dragon. This poem's title character kills a monster terrorizing Hrothgar's (ROTH-gar's) mead hall, then kills the monster's mother. For 10 points, name this Old English epic about a man who kills Grendel.
ANSWER: ***Beowulf***

4. In the cgs system, this physicist names the unit of measure for the magnetic field. A law of magnetism named for this physicist states that the divergence of the magnetic field is zero. A law named for this physicist states that the electric flux through a closed surface is equal to the charge enclosed divided by the permittivity. For 10 points, what German physicist names two of Maxwell's equations, as well as the normal distribution?
ANSWER: Carl Friedrich **Gauss** (GOWSS)

5. This ruler's "horrible year" featured the ugly end to the marriages of three children, including Andrew's separation from Sarah Ferguson. This monarch's father and predecessor only took the throne after his older brother abdicated to marry the American commoner Wallis Simpson. She is married to a prince of Greece named Philip and succeeded her father, George VI. For 10 points, what queen has ruled the United Kingdom since 1952?
ANSWER: **Elizabeth II** [prompt on Elizabeth]

6. Most people who come to this location reside in its fields of asphodel flowers. People who come to this location drink from the river Lethe to forget their past lives. The most violent criminals reside in the pits of Tartarus in this location. Its Elysian (EE-lee-SHUN) fields were home to heroes who performed good deeds in their former lives. For 10 points, name this place of Greek afterlife, which is named for the gloomy god who presided over it.
ANSWER: **Hades** [or Greek **underworld**]

7. This novel's narrator reflects on the symbolic significance of the pulpit from which Father Mapple delivers a sermon about Jonah. This novel's narrator becomes close friends and shipmates with a cannibal named Queequeg. In this novel, the one-legged Captain Ahab leads the hunt for the title creature. For 10 points, name this novel about a whale by Herman Melville.
ANSWER: ***Moby-Dick***

8. Serbs were once imprisoned in this city's Belgrad Forest. Genoese traders built the Galata Tower on this city's Golden Horn. A building in this city known for its massive dome is currently a museum, but was once used as an Orthodox church, then as a mosque. This city on the Bosporus is home to the Hagia (HIGH-ah) Sophia. For 10 points, name this most populous city of Turkey, which lies on the Europe-Asia border.
ANSWER: **Istanbul** [or **Constantinople**]

9. Many of these people were killed in the Massacre of Vassy. An admiral who belonged to this group, Gaspard de Coligny (COLE-ee-NEE), was killed by the Duke of Guise (GEEZ). Catherine de Medici (MUH-dee-CHEE) approved persecuting them. The Edict of Nantes (NAHNT) guaranteed toleration for these people, who were targeted in the Saint Bartholomew's Day Massacre. For 10 points, what group of French Protestants was frequently persecuted?
ANSWER: **Huguenots** (HOOG-uh-NOTS) [prompt on Calvinists; prompt on French people until it is read; prompt on Protestants until it is read]

10. One of this man's poems describes a time when "the world is mud-luscious" and a "queer old balloonman whistles far and wee." He included the line "sun moon stars rain" in his poem about a man who "sang his didn't" and "danced his did." This man's poems include "in Just-" and "anyone lived in a pretty how town." For 10 points, name this American poet known for his use of unusual capitalization and punctuation.
ANSWER: E. E. **Cummings** [or Edward Estlin **Cummings**]

11. This pathway forms a futile cycle with gluconeogenesis (glu-ko-neo-"genesis"). In a step of this process, D-H-A-P is isomerized ("eye"-SAWM-uh-ryze-d) to glyceraldehyde (glis-uh-RAL-duh-hide)-3-phosphate. Its first step involves hexokinase (hex-oh-KYE-nace) phosphorylating (fos-FOR-uh-late-ing) glucose. It yields two net A-T-P and two N-A-D-H in its payoff phase. For 10 points, what pathway converts glucose into two molecules of pyruvate?
ANSWER: **glycolysis**

12. This man claimed that earning a dollar in a factory was worth "infinitely more" than spending a dollar in an opera house. He told listeners to "cast down your bucket where you are." This man's "Atlanta Compromise" urged education instead of challenging Jim Crow and was opposed by W.E.B. DuBois (doo-BOYZ), an N.A.A.C.P. co-founder. For 10 points, what African-American leader and author of *Up From Slavery* founded the Tuskegee (TUSS-kee-jee) Institute?
ANSWER: Booker Taliaferro **Washington**

13. The intensity resulting from this phenomenon is equal to its initial value times the cosine squared of theta by Malus's Law. This property can come in elliptical, circular, and linear varieties. When incident light reflects off roads and lakes, it can gain this property, which means that the light wave oscillates in only one or two planes. For 10 points, what property of light allows glare to be reduced by sunglasses with special filters?
ANSWER: **polarization** [or **polarized**]

14. This actor voiced a prehistoric rabbit named Squint in *Ice Age: Continental Drift*. On television, he played a character who married a Canadian named Wendy so she could obtain a green card. More recently, this actor starred as New York City actor Dev in a Netflix original series he created. This actor also starred as Tom Haverford, the assistant to Leslie Knope, in a sitcom. For 10 points, name this comedian who has starred in *Master of None* and *Parks and Recreation*.
ANSWER: Aziz **Ansari**

15. This composer's sixth symphony ends with a despairing movement marked "Adagio lamentoso." He included a "love theme" in his fantasy-overture *Romeo and Juliet* and wrote the *Pathétique* (pah-tay-TEEK) Symphony. He quoted the anthems "God Save the Tsar" (ZAR) and "La Marseillaise" (mahr-say-YEZZ) in a piece that uses live cannon shots to depict victory at the Battle of Borodino. For 10 points, name this composer of the *1812 Overture*.
ANSWER: Pyotr Ilyich **Tchaikovsky** (cha-KOFF-sky)

 **VHSL Regular Season 2016-2017 - Round 06 - Directed Period**

1A. A blackboard bold Z is used to represent what set of numbers that includes negative numbers and is a subset of the rationals?
ANSWER: **integer**s

1B. What U.S. President orchestrated the Camp David Accords between Israel and Egypt?
ANSWER: James Earl "Jimmy" **Carter** Jr.

2A. Ellen Johnson Sirleaf is the president of what African country, making her the first female elected head of state on the continent?
ANSWER: Republic of **Liberia**

2B. What Russian director made technically innovative propaganda films such as *Strike* and *Battleship Potemkin*?
ANSWER: Sergei **Eisenstein**

3A. This is a 20-second calculation question. What is the solution to the equation the square root of " quantity three x plus one" is equal to five?
ANSWER: x equals **eight**

3B. This is a 20-second calculation question. Consider the integers between 10 and 20 inclusive. If one of those numbers is chosen uniformly at random, what is the probability that it is composite?
ANSWER: **7/11**

4A. What is the name of Odin's horse, sired when Loki briefly took the form of a mare to distract Svadilfari (SUH-vod-ILL-FAR-ee)?
ANSWER: **Sleipnir**

4B. China's three official languages are English, Mandarin and what second-most widely used form of Chinese?
ANSWER: **Cantonese**

5A. What beloved woman guides Dante through heaven in the final part of *The Divine Comedy*?
ANSWER: **Beatrice** (bay-uh-TREE-chay)

5B. What carbonate mineral is a polymorph of aragonite and is a major component of limestone?
ANSWER: **calcite** [prompt on calcium carbonate or Ca C O 3]

6A. What large antelopes, named by the Dutch, make a yearly "Great Migration" across the Serengeti (SAIR-en-GET-ee) in Kenya and Tanzania?
ANSWER: **wildebeest** [or **gnu**s]

6B. What surname is shared by Allan, the author of *The Closing of the American Mind*, and Harold, the author of *The Western Canon*?
ANSWER: **Bloom**

7A. H. Jon Benjamin voices the main character of what Fox show about a restaurant run by a middle-aged chef, his wife Linda, and his children Tina, Gene and Louise?
ANSWER: ***Bob's Burgers***

7B. What are the SI units of acceleration?
ANSWER: **meters per second squared** [or obvious equivalents, such as **meters over seconds squared**]

8A. This is a 30-second calculation question. On triangle ABC, the measure of angle A is twenty degrees, and the measure of angle C is thirty degrees. Point P lies on AB, and point Q lies on AC. If PQ is parallel to BC, what is the measure of angle BPQ?
ANSWER: **50 degrees**

8B. This is a 30-second calculation question. In triangle ABC, angle A is thirty degrees, and angle C is forty-five degrees. If the length of side BC is ten centimeters, what is the length of side AB?
ANSWER: **10sqrt(2) centimeters** [or **10 times the square root of 2 centimeters**]

9A. In the Russian Empire, what people were restricted to living in the Pale of Settlement and were frequently the victims of pogroms?
ANSWER: **Jews**

9B. In what Robert Frost poem does the speaker state that "one could do worse than be a swinger" of the title trees?
ANSWER: "**Birches**"

10A. W. W. Norton puts out "American Literature" and "British Literature" versions of what collection of writings featuring multiple authors?
ANSWER: **anthology** [or **anthologies**]

10B. The French "three-estate" system consisted of the nobility, the commoners, and what other group that made up the first estate?
ANSWER: the **clergy** [or **priests**; accept synonyms]

 **VHSL Regular Season 2016-2017 - Round 06 - Third Period, Fifteen Tossups**

1. Cancers of this organ are divided into non-small-cell and small-cell types. Fluid fills the cavity between the membranes surrounding this organ in a pleural ("plural") effusion. In premature infants, this organ may be unable to produce surfactant, which is needed to prevent collapse of its alveoli (al-vee-OH-"lye"). This organ is supplied by two bronchi (BRAWN-kye), which diverge from the trachea. For 10 points, name this organ that inflates during inhalation.
ANSWER: **lung**s

2. This player first announced his retirement by tweeting a picture of a pair of cleats hanging from a phone line. He was criticized for once answering every question at a press conference with "I'm just here so I don't get fined." During a 2011 wildcard game against the Saints, he recorded a 67-yard touchdown run which came to be known as the "Beast Quake." For 10 points, name this former running back of the Seattle Seahawks.
ANSWER: Marshawn **Lynch** [prompt on Marshawn]

3. Windowpanes fell out during high winds from a poorly-designed building designed by this architect. This man adopted a triangular design for the East Building of the National Gallery of Art, and faced controversy for the aforementioned John Hancock Tower in Boston. Francois Mitterand commissioned this architect to design a glass and metal pyramid. For 10 points, name this Chinese-American architect who designed the entrance to the Louvre (loo-VRUH).
ANSWER: I. M. **Pei** [or Ieoh Ming **Pei**]

4. The third act of this play ends with a woman exclaiming "men! men! men!" after berating her son and his friend, the author of *Spoken Sanskrit.* This play begins with people seeking shelter from the rain in Covent Garden. In this play, the phonetics professor Henry Higgins tries to teach the flower girl Eliza Doolittle how to pass for a lady. For 10 points, name this play titled for a mythological sculptor written by George Bernard Shaw.
ANSWER: ***Pygmalion***

5. Load balancers are most commonly used to distribute requests to this kind of software. The two most popular open source type of this software are NginX ("engine-X") and Apache (uh-PAH-chee). This kind of software typically listens for HTTP requests and returns a response in CSS and HTML. Data centers often have "farms" of computers that solely run these programs. For 10 points, what type of software delivers the content of a website requested by a browser?
ANSWER: web **server**

6. Ouabain (WAH-bayn) directly causes an increase in the intra-cellular concentration of this element. This element's equilibrium potential of around plus-60 millivolts is approached when an influx of its ions through voltage-gated channels drives further depolarization of neuron membranes, generating an action potential. For 10 points, name this alkali (AL-kuh-"lye") metal with atomic number 11 whose cation (CAT-"ion"), with chloride, makes table salt.
ANSWER: **sodium** [or **Na**-plus]

7. At the time of this man's death, he was the head of a puppet state known as the Salo Republic. An invasion ordered by this man forced Haile (HAY-lee) Selassie into exile. His country was victorious over Ethiopia in a war condemned by the League of Nations. This man was known as "Il Duce" (doo-CHAY) and became Prime Minister after leading his blackshirts in the March on Rome. For 10 points, what Italian fascist led his country during World War II?
ANSWER: Benito **Mussolini**

8. In one play, this playwright wrote about George and Maggie Antrobus surviving an ice age and a flood. In another play by this man, the Stage Manager introduces characters and sometimes takes small roles in the play. This playwright of *The Skin of Our Teeth* created Grover's Corners, the setting of his play about Emily Webb and George Gibbs. For 10 points, name this American playwright of *Our Town.*
ANSWER: Thornton **Wilder**

9. In the flow model, this phenomenon results from a high challenge level and low skill level. This phenomenon and depression are measured by inventories devised by Aaron Beck. Infants experience an excess amount of this phenomenon when separated from home. This phenomenon and fear are described by the German word *angst.* For 10 points, name this psychological state of nervous uneasiness.
ANSWER: **anxiety** [or **angst** before mentioned; prompt on fear before mentioned]

10. A form of this quantity is defined as the square root of twice gravitational acceleration times distance. A kinematic equation states that distance is equal to the product of this quantity's initial value and time, plus the product of half the acceleration and time squared. This quantity is the time derivative of position, the change in position over time. For 10 points, what vector quantity, with units of meters per second, encompasses both the direction and the speed of an object?
ANSWER: **velocity** [or **v**]

11. During the Ming Dynasty, one of these events killed many people living in yaodongs (YOW-dongs). Archbishop Miot (MEE-oh) of Port-au-Prince died in a 21st century example of these events. In the United States, the largest of them happened on Good Friday in 1964 in Alaska. The deadliest of these events killed over 820,000 people in 1556 at Shaanxi (SHAN-zee), China. For 10 points, what disaster hit Haiti in 2010, creating at least 52 major aftershocks?
ANSWER: **earthquakes** [or **quake**; or **tremor**]

12. This empire's ruler was captured after his army was crushed at the Battle of Manzikert by the Seljuks. Another ruler of this empire was almost overthrown after riots broke out in response to sporting events at the Hippodrome. Its powerful generals included Narses and Belisarius. A powerful ruler of this empire was married to the empress Theodora and was named Justinian the Great. For 10 points, what empire's capital was at Constantinople?
ANSWER: **Byzantine** Empire [prompt on Eastern Roman Empire]

13. This man painted a portrait of his assistant, the former slave Juan de Pareja (pah-RAY-hah). Francis Bacon adapted a portrait of Pope Innocent X (the tenth) by this court painter to Philip IV (the fourth) of Spain. That king and his queen appear in a mirror in the background of one of this man's paintings. This artist showed himself painting the Infanta Margarita, who is surrounded by a dog and the title attendants. For 10 points, name this painter of *Las Meninas*.
ANSWER: Diego Rodríguez de Silva y **Velázquez**

14. An event that helped to create this kingdom was the Expedition of the Thousand, led by a man who had fought in the Uruguayan Civil War and his "Redshirt" volunteers. This kingdom's first prime minister was Count Cavour and its first king was Victor Emmanuel II. Giuseppe (JUH-sep-ee) Garibaldi helped establish it by winning battles on behalf of Sardinia. For 10 points, what kingdom was created in the 1860's when kingdoms like the Two Sicilies united?
ANSWER: Kingdom of **italy**

15. A resident of this island fell in love with the warrior Naoise (NAY-oize), but later threw herself to her death off a chariot rather than marry his killer. A queen named Medb (MOB) on this island sought to steal a stud bull but was foiled by a youth. On this island, the Cattle Raid of Cooley featured the exploits of Cu (KOO) Chulainn (CULL-lain). For 10 points, banshees were primarily part of what island's mythology, which also makes up the Ulster Cycle?
ANSWER: **Ireland** [or **Eire**]

 **VHSL Regular Season 2016-2017 - Round 06 - Tiebreaker Questions**

1. This poet wrote about a woman "rolled round in earth's diurnal course" in a poem beginning, "A slumber did my spirit seal." This author of the "Lucy" poems wrote about how "five years have passed" since visiting the River Wye in his poem "Tintern Abbey." For 10 points, name this poet whose collaboration with Samuel Taylor Coleridge on *Lyrical Ballads* helped launch Romanticism in England.
ANSWER: William **Wordsworth**

2. In the book *On Generation and Corruption*, these things are classified based on the properties of hotness and coldness, and wetness and dryness. Empedocles believed that these things were mediated by two forces called Love and Strife, and that they comprised all of the universe. Aristotle added quintessence to the standard group of these things. For 10 points, name these concepts from ancient philosophy, which consist of earth, fire, wind, and water.
ANSWER: classical **element**s [or **earth**, **fire**, **wind**, and **water** before "earth" is mentioned]

3. This artist depicted his son Léon behind two women dressed in white in his painting *The Balcony.* This artist used Titian's (TEE-shuns) Venus of Urbino as a model for a painting depicting a black cat at the foot of a bed. A pile of clothes can be seen next to a basket of fruit in this artist's painting depicting two fully clothed men sitting next to a nude woman. For 10 points, name this French artist of *Olympia* and *Luncheon on the Grass*.
ANSWER: Édouard **Manet** (MAN-ey) [do not accept "Monet" (MOH-nay)]

4. The equilibrium constant is written in terms of this quantity rather than concentration when the reactants and products are gaseous. In a gas mixture, the total value for this quantity is simply the sum of the partial form of it for each individual gas, according to Dalton's law. For gases, this intensive quantity displays an inversely proportional relationship to volume as shown by Boyle's law. For 10 points, what quantity is measured in millimeters of mercury and atmospheres?
ANSWER: **pressure** [prompt on KP; prompt on P]

5. When kidnapped by pirates, this man insisted the criminals ask for 50 talents of silver, not 20. His masterful use of siege warfare at the Battle of Alesia defeated Vercingetorix (VER-sin-GET-er-IX), a victory described in this man's *Commentaries on the Gallic Wars*. This man once proclaimed a statement translated as "I came, I saw, I conquered." For 10 points, what Roman dictator was assassinated on the Ides of March by fearful senators including Brutus?
ANSWER: Gaius **Julius Caesar** [prompt on Julius; prompt on Caesar]

In rhombus ABCD, AC is 12 inches long and DB is 16 inches long. In inches, find the perimeter of the rhombus.
ANSWER: **40** inches

What anti-foreigner and anti-Christian rebellion took place in China from 1899 to 1901 and was stopped by an Eight-Nation Alliance?
ANSWER: **Boxer** Rebellion [or **Yihequan** Movement]