**VHSL Regular Season 2016-2017 - Round 27 - First Period, Fifteen Tossups**

1. After awaking from a dream induced by this substance, Samuel Taylor Coleridge wrote down "Kubla Khan," but was interrupted by the person from Porlock. Thomas de Quincey described his drug addiction in a book titled "Confessions of an English" eater of this substance. For 10 points, name this drug, the source of which puts the protagonists of *The Wizard of Oz* to sleep when they cross a poppy field.
ANSWER: **opium**

2. At the beginning of this novel, Dolly discovers her husband Stiva's affair with a governess. This novel begins by declaring that "happy families are all alike." In this novel, Kitty eventually marries the autobiographical character Levin (YO-vin). The title woman of this novel throws herself in front of a train after the failure of her affair with Count Vronsky. For 10 points, name this novel by Leo Tolstoy.
ANSWER: ***Anna Karenina***

3. Thomas Bowdler gives his name to a form of this practice that was first used for his book *The Family Shakespeare*. In *Near v. Minnesota*, it was ruled that a form of this act called prior restraint was unconstitutional. The so-called "Great Firewall" refers to a set of policies that institute this action across the Chinese Internet. For 10 points, name this act, in which the government or some other agency suppresses the media.
ANSWER: **censor**ship [prompt on expurgation or word forms; prompt on bowderlization; prompt on suppression of media]

4. A book of philosophy named for this concept argues that since people cannot control their emotions, they cause "human bondage;" that book which discusses this topic using the language of geometry, and was written by Baruch Spinoza. Ancient Greek philosophers discussed the cultivation of virtue when studying this branch of philosophy. For 10 points, name this branch of philosophy concerned with morality and ideas of right and wrong.
ANSWER: **ethics** [prompt on moral philosophy]

5. 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**

6. The stretch rule gives conditions under which this quantity remains unchanged. This quantity can translated through space using the parallel-axis theorem. Objects with the same mass and radius, but different shapes, can take different amounts of time to roll down a ramp due to differences in this quantity. For a point mass, it is given as mass times radius squared. For 10 points, name this rotational analogue of mass, symbolized by I.
ANSWER: **moment of inertia** [or **I** until it is read; or **angular mass** or **rotational inertia** until "rotational" is read]

7. The most recent game in this series features a level called Cloudtop Cruise, in which players traverse through thunderclouds and a giant beanstalk. Two players control a single vehicle in the "Double Dash" installment of this game series for the Gamecube. The "Special Cup" in many games of this series ends with a challenging level called Rainbow Road. For 10 points, name this racing series made by Nintendo, in which Luigi and his brother are playable characters.
ANSWER: ***Mario Kart*** [prompt on *Super Mario Brothers*]

8. 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**

9. This country assassinated various enemies during Operation Spring of Youth, part of a broader attack on groups like Black September. In a 1917 letter, Foreign Secretary Arthur James Balfour proposed the creation of what would eventually become this country. This country captured the Gaza Strip in the Six-Day War. Eleven of its Olympic athletes were killed in Munich in 1972. For 10 points, what country fought Arab neighbors in the Yom Kippur War?
ANSWER: State of **Israel**

10. The neurotransmitter GABA is a non-standard one of these molecules. In nature, these molecules almost always occur as their L isomer (EYE-so-mer). These molecules are usually NOT added for U-A-A, U-A-G, or U-G-A. tRNA carries them to the ribosome for incorporation into the growing peptide chain during translation. For 10 points, name these molecules such as glycine (GLY-seen) and tryptophan (TRIP-toh-fan) that form the building blocks of proteins.
ANSWER: **amino acid**s

11. After this event, both Walter Short and Husband Kimmel were removed from command. A code phrase in this event was "Tora! Tora! Tora!", which indicated it came as a complete surprise. The *USS Arizona* Memorial honors this event's dead. This event took place on a "date which will live in infamy," according to Franklin Roosevelt. For 10 points, what December 7, 1941, event was a sneak attack by the Japanese on a Hawaiian naval base?
ANSWER: attack on **Pearl Harbor** [prompt on Operation AI; prompt on Operation Z]

12. The darkfield type of these devices doesn't use staining. Some types of these devices require oil immersion. The "dissecting" type of these instruments uses reflected rather than transmitted light. Other kinds of them have several compound objectives that produce a virtual image through the eyepiece and can be used to see cells. For 10 points, name these instruments that greatly magnify the images of samples on slides.
ANSWER: light **microscope**s [or **microscopy**; or electron **microscope** before "oil" is read]

13. Aviation pioneer Amy Johnson crashed into the outlet of this river, which was defended by the Maunsell sea forts during World War II. Pollution in this river led to a "Great Stink" in 1858. This river travels east from the Cotswolds and passes by a massive Ferris wheel nicknamed "the Eye." Tower Bridge crosses this river, which is overlooked by the clock tower home to Big Ben. For 10 points, name this river that flows through London.
ANSWER: River **Thames** [TEMS]

14. The Rye House Plot targeted a member of this royal house known as the "Merrie Monarch." The fictional Popish Plot claimed Catholics wanted to topple this house. Robert Catesby targeted another of its members with a scheme meant to blow up the House of Lords. That member of this house targeted by the Gunpowder Plot was a king of Scotland who assumed the English throne after Elizabeth I died. For 10 points, English king James I was from what royal house?
ANSWER: House of **Stuart**

15. Richard Owen and Thomas Huxley debated this man's ideas during the so-called "Great Hippocampus Question." A book by this author describes his voyages with Captain Robert Fitzroy. In his book *The Descent of Man*, this author argued that humans specifically descended from apes. For 10 points, name this 19th-century scientist whose book *On the Origin of Species* introduced the idea that natural selection was the cause of evolution.
ANSWER: Charles **Darwin**

 **VHSL Regular Season 2016-2017 - Round 27 - Directed Period**

1A. What Scottish philosopher examined the relation between cause and effect in his book *An Enquiry Concerning Human Understanding*?
ANSWER: David **Hume**

1B. The "opposite" of claustrophobia is what other phobia, often said to be the fear of wide, open spaces?
ANSWER: **agoraphobia**

2A. What scale is used to classify hurricanes as Category 1 through Category 5, based on their wind speed?
ANSWER: **Saffir-Simpson**  hurricane wind scale [or **SS**HWS; or **SS**HS]

2B. What contemporary author of *The Corrections* objected to his novel being selected by Oprah's Book Club?
ANSWER: Jonathan **Franzen**

3A. What five-movement Beethoven symphony includes depictions of a "Scene by the Brook" and a "Shepherd's Song"?
ANSWER: ***Pastoral*** Symphony [or Symphony No. **6**]

3B. The nihilist Bazarov (bah-ZAR-off) appears in what novel by Ivan Turgenev (tur-GAIN-yef)?
ANSWER: ***Fathers and Sons*** [or ***Ottsy i Dety***]

4A. Hawking radiation is thought to be emitted by what supermassive objects, which are thought to be found at the centers of almost all galaxies?
ANSWER: **black hole**s [or **SMBH**s]

4B. What Caribbean island group named for a reptile is popular among businesses due to its tax-exempt status?
ANSWER: **Cayman** Islands

5A. This is a 20-second calculation question. What is the horizontal asymptote of the graph of y equals four plus the quantity three to the two x power?
ANSWER: **y equals four**

5B. This is a 20-second calculation question. Farrah has a triangular prism whose height is 10 meters. If the volume of the prism is 75 meters cubed, then what is the area of one of the 2-dimensional triangles on either of its sides?
ANSWER: **7.5** meters

6A. What predecessor of Vladimir Putin became the first President of the Russian Federation after the collapse of the Soviet Union?
ANSWER: Boris **Yeltsin**

6B. What river in France gives its name to two World War I battles in 1914 and 1918, the first of which halted the German advance onto Paris and set up years of trench warfare?
ANSWER: the **Marne**

7A. This is a 30-second calculation question. If two six-sided dice are rolled, what is the probability that both dice land on an even number?
ANSWER: **0.25**

7B. This is a 30-second calculation question. A ladder that is ten feet long leans against the top of a building that is five feet tall. In degrees, what is the angle of elevation of the top of the building from the base of the ladder?
ANSWER: **30** degrees

8A. What American novelist created Randle McMurphy in *One Flew Over the Cuckoo's Nest*?
ANSWER: Ken **Kesey**

8B. What hormone secreted from beta cells in the islets of Langerhans opposes glucagon?
ANSWER: **insulin**

9A. The United States never joined what international peacekeeping organization that was formed after World War I?
ANSWER: **League of Nations**

9B. What Canadian singer represented Switzerland at Eurovision and sang "My Heart Will Go On" for the movie *Titanic*?
ANSWER: Celine **Dion** [or Céline Marie Claudette **Dion**]

10A. What President of Syria has used social media campaigns and fashion magazine layouts to boost public perception of his country?
ANSWER: Bashar al-**Assad**

10B. In Spanish, what category of verbs ends with the suffix "*s-e*" in its infinitive form, and describes actions done to oneself?
ANSWER: **reflexive** verb [or *verbo* ***reflexivo***]

 **VHSL Regular Season 2016-2017 - Round 27 - Third Period, Fifteen Tossups**

1. This composer quoted the "Day of Wrath" Gregorian chant in his *Totentanz*. He wrote slow pieces such as "Un sospiro" and "Liebestraum (LEE-buss-TROWM) No. 3", but was a skilled pianist whose concerts drove admiring fans into his namesake "mania." His country's traditional Roma music inspired this composer to write a piano collection whose second piece is often featured in cartoons. For 10 points, name this composer of the *Hungarian Rhapsodies*.
ANSWER: Franz **Liszt** [or **Liszt** Ferenc]

2. This president was the subject of a punk music video urging the "Mother of God" to "drive" him away that was illegally filmed in 2012 at a cathedral. In September 2015, this world leader's country intervened to help Syria against rebels, leading to one of its jets being shot down by the Turkish Air Force. He previously served as Prime Minister under his successor, Dmitry Medvedev (MED-vuh-DEV). For 10 points, name this current President of Russia.
ANSWER: Vladimir **Putin**

3. While in this city, Medea laced a cup of wine with deadly aconite poison, but its king knocked the goblet out of his son's hands after recognizing the hilt of his sword. This city's king killed himself after his son forgot to change the masts of his ship from black to white. Aegeus (ay-GEE-uss) was a king of this city, which is named for the Greek goddess of wisdom. For 10 points, name this large city in ancient Greece, which is its modern-day capital.
ANSWER: **Athens**

4. Thermogenin (thermo-JEN-in) is found in a mitochondria (my-toh-KON-dree-uh)-rich form of this tissue. Instead of shivering, hibernating animals and newborns produce heat using that "brown" type of this tissue. The namesake triglycerides (try-GLIS-uh-rides) found in lipid droplets in this tissue yield nine kilocalories per gram. For 10 points, name this energy-storing tissue also called adipose (AA-duh-pohce) that is found in blubber and increased in obesity.
ANSWER: **fat** [or word forms or types of **fat**; or **adipose** before it is read; prompt on connective tissue]

5. This composer's three *Marches militaires* ("MARSH" mee-lee-"TARE") are often transcribed for full orchestra. During his time, he was best-known for art songs, or *lieder* ("leader"), such as "Der Erlkonig" ("dare" "EARL"-koh-neeg), and quoted many of them in pieces such as the *Trout* Quintet. Due to his early death, this composer only managed to write two movements of his eighth symphony. For 10 points, name this composer of the *Unfinished* Symphony.
ANSWER: Franz **Schubert** [or Franz Peter **Schubert**]

6. In this novel, the protagonist's sister fires a gun to fend off the advances of her former employer, who later shoots himself. In this novel, the protagonist is tormented by the detective Porfiry Petrovich (por-FEER-ee peh-TRO-vitch), who suspects him of murdering the pawnbroker Alyona Ivanovna (al-YO-nuh ee-VAHN-uv-nuh). For 10 points, name this novel about Raskolnikov (ros-KAHL-nee-koff) by Fyodor Dostoevsky (dahs-toy-EF-skee).
ANSWER: ***Crime and Punishment*** [or ***Prestupleniye i Nakazaniye***]

7. This actress won an Academy Award for her 1954 role opposite Bing Crosby in *The Country Girl.* She played the Quaker wife of town marshal Will Kane in the Western *High Noon.* In another role, this actress helps her wheelchair-bound photographer boyfriend spy on his neighbors and uncover a murder. For 10 points, name this Classic Hollywood actress who starred in *Rear Window* and married Prince Rainier of Monaco.
ANSWER: Grace **Kelly** [or Princess **Grace**]

8. This ruler's mother is only known as the "Younger Lady." This man had a deformed left foot and DNA tests have revealed he carries the oldest known genetic proof of malaria. He reversed many of the changes his father made by ending the worship of Aten and moving the capital back to Thebes. Howard Carter became famous after finding this man's treasure. For 10 points, what Egyptian pharaoh's nearly intact tomb was discovered in 1922?
ANSWER: King **Tut** [or **Tutankhamun** (TOO-tonk-AH-monn); or **Tutankhaten**]

9. This mythical character was popularized in a series of pamphlets by advertising man W.B. Laughead (LOWW-head). His industrious sidekick, who invented fountain pens and stopwatches, was named Johnny Inkslinger. This character owns a stove which covers an acre and he was said to have created the Black Hills and Grand Canyon. This man owns a blue ox named Babe. For 10 points, name this mythically gigantic lumberjack from American folklore.
ANSWER: **Paul** Bunyan [or **Bunyan**]

10. The degree to which a substance deviates from the behavior of this model substance is quantified by the compressibility factor. According to kinetic molecular theory, these substances exhibit no intermolecular forces. The law named for this type of substance is modified by the van der Waals equation and is derived by combining Boyle's Law and Charles's Law among others. For 10 points, name this theoretical substance consisting of point particles that only collide elastically.
ANSWER: **ideal gas**

11. In the 20th century, the Karrick process was most often performed on this substance to both carbonize and pyrolyze it so that oil can be extracted. When burned, the form of this rock named for the Greek for "wood" will yield a lower amount of energy than this substance's "anthracite" form. The hardening of peat in regions like bogs is the first step in the formation of this non-renewable source of energy. For 10 points, name this rock that is often burned as a fossil fuel.
ANSWER: **coal**

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. A theater group based on this peninsula helped launch the career of Eugene O'Neill. Barnstable County contains the entirety of this peninsula, which begins at Buzzards Bay. Its city of Woods Hole is the base of many oceanic research institutions. Martha's Vineyard is south of this peninsula, whose city of Provincetown was where the Mayflower Compact was signed. For 10 points, identify this peninsula in eastern Massachusetts named for a fish.
ANSWER: Cape **Cod**

14. This country was forced to withdraw from disputed territory in the Kargil War. Its founder was a longtime leader of the Muslim League named Muhammad Ali Jinnah. This is the only majority Muslim country to explicitly admit to having nuclear weapons. In 1971, Bangladesh fought a bloody liberation war with this country. For 10 points, what Asian country was created in 1947 after it was partitioned from its eastern neighbor, India?
ANSWER: Islamic Republic of **Pakistan**

15. In the first part of a play by this author, the title character is followed home by a demon in the shape of a poodle and later seduces a girl named Gretchen. This author wrote a wildly popular novel about a young artist who falls in love with Lotte (LOT-tuh). The title character of a two-part closet drama by this author makes a pact with Mephistopheles (MEFF-uh-STOFF-uh-LEEZ). For 10 points, name this German poet and playwright, the author of *Faust.*
ANSWER: Johann Wolfgang von **Goethe** (GURR-tuh)

 **VHSL Regular Season 2016-2017 - Round 27 - Tiebreaker Questions**

1. A "budding" species of these organisms uses mating factors called "a" and "alpha". *Candida* (can-DEE-duh) *albicans* (AL-buh-cans) is one of these organisms that can cause namesake vaginal infections. A model one of them called *S. cerevisiae* ("S" sayr-uh-VIS-ee-ai) is also used by brewers and bakers. For 10 points, name these fungal organisms that include a type that helps dough rise.
ANSWER: **yeast** [prompt on fungi or fungus before "fungal" is read]

2. In his early life, this man lost a sandal while crossing the river Anauros. The future wife of this man removed a nail from the bronze giant Talos to defeat it. King Pelias ordered this man to travel to a land where he had to plant the teeth of a dragon in the ground. This hero eloped with King Aeetes' (AY-ee-TEEZ) sorceress daughter after meeting her in Colchis. For 10 points, name this leader of the Argonauts, a Greek hero who sought the Golden Fleece.
ANSWER: **Jason**

3. After burning the ancient version of this city, attackers were defeated at the Battle of Watling Street. Its ancient precursor was destroyed by Boudica, who was rebelling against the Romans. Much later, Simon Sudbury and the Lord Chancellor were killed in this city by Wat Tyler's rebels during the Peasants Revolt. For 10 points, Edward the Confessor ordered the building of Westminster Abbey in what city, the site where English kings are crowned?
ANSWER: **London** [or **Londinium**]

4. This country is home to the Fossa Regia, which separated Numidia from the Romans. George Lucas was inspired by this country to create Tatooine (TAT-too-EEN). Tourists at this country's national museum were killed by ISIS sympathizers in 2015. A street vendor who set himself on fire in this country began the Arab Spring. For 10 points, name this Mediterranean country that borders both Algeria and Libya, whose capital is located where Carthage once stood.
ANSWER: **Tunisia** [or **Tunisian Republic**; or al-Jumhuriyah at-**Tunisiyah**]

5. The speaker of this poem recalls how he has "paddled in the burn" and "run about the braes" with the addressee. The chorus of this poem states "we'll take a cup of kindness yet" for the title times. It begins by asking, "Should old acquaintance be forgot, and never brought to mind?" For 10 points, name this poem by Robert Burns traditionally sung to celebrate New Year's.
ANSWER: "**Auld Lang Syne**"

Find the probability that when two fair six sided dice are rolled, both the sum and product of the results are even.
ANSWER: **1/4**

What kind of magnetism, contrasted with diamagnetism, is exhibited by molecules with unpaired electrons like O2?
ANSWER: **para**magnetism