

## VHSL Regular Season 2010-2011 Round 18 First Period, Fifteen Tossups

1. The later years of this artistic movement produced the still-lifes of Juan Gris. Artists of this movement cut out everyday objects and pasted them on the canvas to create overlapping collages in its "synthetic" phase, which evolved out of its early "analytic" phase. This artistic movement used multiple perspectives to depict objects from many angles, and was pioneered by George Braque and Pablo Picasso. For 10 points, name this twentieth century art movement which breaks up objects and reassembles them into abstract three-dimensional forms.

ANSWER: Cubism [accept Synthetic Cubism until "synthetic" is read]

004-10-20-10101

2. Peter and Wendy Hadley send their parents to their deaths in a virtual reality machine in this man's short story "The Veldt." This man wrote a novel in which the main character, Douglas Spaulding, nearly dies after learning about his own mortality. That novel by this man is *Dandelion Wine*. This man wrote a novel whose protagonist begins to memorize the Book of Ecclesiastes at the end. In that novel by this man, Guy Montag is a fireman whose job is to burn books. For 10 points, name this author of *Fahrenheit 451*. ANSWER: Ray **Bradbury** 

030-10-20-10102

3. One of these animals in Greek myth is Laelaps, who was converted to stone by Zeus along with its potential prey, the Teumissian Fox. Another example from Greek myth was Argos, who was unable to give away the disguise of a man whom he had not seen for many years due to his sudden death. In Norse myth, Garm was this type of animal. The best known example from Greek myth served as a guardian to the underworld. For 10 points, Cerberus had three heads of what kind of animal?

ANSWER: dogs

040-10-20-10103

4. This author tells the title flower that "The self-same power that brought me there, brought you" in his poem "The Rhodora." He celebrated a monument depicting a place where "embattled farmers stood" and "fired the shot heard round the world" in his poem "Concord Hymn." He outlined an American philosophy based on spiritual communion with nature and individualism in his essays, which include "Experience," "The Poet," and "Self-Reliance." For 10 points, name this mentor of Henry David Thoreau who led the Transcendentalist movement.

ANSWER: Ralph Waldo **Emerson** [accept "The **Rhodora**" before mentioned]

004-10-20-10104

5. John L. DeWitt devised most of the implementation of this policy. A photograph of one of this policy's targets pictures a grocery store displaying the banner "I am an American." It resulted from Executive Order 9066 and caused over one hundred thousand people to be imprisoned at Manzanar. This policy was upheld in *Korematsu v. United States*. It was enacted because of fears of disloyalty after the bombing of Pearl Harbor. For 10 points, name this policy that forcibly relocated descendants of America's main Asian foe in World War II.

ANSWER: placing **Japanese**-Americans into **internment camp**s [or clear equivalents]

6. One of these entities can be restated in an equation with the terms del-squared T and q-triple-prime, while another states the effect of an object whose resultant force is zero. Yet another one of these entities overrules two "lower" laws, and mandates that a robot may not injure a human. For ten points, name this numbered law that describes the conservation of energy in thermodynamics and the law of inertia in physics.

ANSWER: **first** laws (accept laws of **thermodynamics** before "resultant force")

081-10-20-10106

7. The definitive essay on the group of writers known by this adjective dubs those writers "more often named than read, and more often read than profitably studied." This group included the author of *The Temple*, George Herbert, as well as the poets of "Batter My Heart, Three-Person'd God," "To Althea From Prison" and "To His Coy Mistress." This word also refers to a philosophical discipline that studies the nature of reality. For 10 points, John Donne is the exemplar of what kind of "poet," whose name traces back to a work of Aristotle that was written after the *Physics*?

ANSWER: metaphysical [or metaphysics]

019-10-20-10107

8. One character on this TV show played by Jonathan Groff leads his girlfriend to the knowledge that Shelby Corcoran is her birth mom. That character, Jesse St. James, goes to rival Carmel High. The main cast of this show goes to William McKinley High in Lima, Ohio, where they form the group New Directions. Characters on this show include the once pregnant Quinn and the wheelchair bound Artie. For 10 points, name this Fox TV show about a club run by Will Schuester that is often under attack by the cheerleading squad head coach Sue Sylvester.

ANSWER: Glee

023-10-20-10108

9. During this man's reign, the Earl of Surrey killed James IV and about 10,000 Scots at the Battle of Flodden Field. The Pilgrimage of Grace was a demonstration against this man's policies. The Book of Common Prayer was written by his Archbishop of Canterbury Thomas Cranmer. The Act of Supremacy grew out of Thomas Wolsey's failure to persuade Pope Clement VII to annul this man's first marriage. For 10 points, name this man whose divorce from Catherine of Aragon and marriage to Anne Boleyn sparked the English Reformation.

ANSWER: **Henry VIII** of England [prompt on **Henry**]

030-10-20-10109

10. Characters in this work include the dentist Fritz Pfeffer, who joins the van Pels family after four months. Willy Lindwer wrote a follow-up to this work; that sequel follows the last seven months of this book's author and her sister Margot as they move to Bergen-Belsen. The characters in this work are brought news and food each night through a secret staircase hidden behind a bookshelf, which is ultimately raided by the Nazis. For 10 points, identify this chronicle of a family hiding in an attic in the occupied Netherlands, which was written by a thirteen-year-old girl.

ANSWER: The <u>Diary of a Young Girl</u> [or The <u>Diary of Anne Frank</u>; or Het <u>Achterhuis</u>]

11. Members of this organization identify one another by asking "AYAK?" and replying "AKIA." Revived in 1915 by William Simmons, this "invisible empire" was significantly weakened after Congress passed the Force Bill in 1871. In its heyday, it intimidated people by burning crosses near their homes. Led by a Grand Wizard, this organization sprang up to attack freed slaves after the Civil War. For 10 points, name this American terrorist organization whose members wear white robes and whose name is often abbreviated to the KKK.

ANSWER: **Ku Klux Klan** [or the **KKK** before mentioned]

004-10-20-10111

12. These elements have high magnetic moments and form large trivalent cations. These elements are used in color televisions and lasers due to a sharp emission spectrum in their 4f electrons. Like the transition metals, this set of elements contains a single synthetic element; that element is prometheum. For 10 points, name these elements often found just above the actinides on the periodic table.

ANSWER: **lanthanides** [or **lanthanoids**]

003-10-20-10112

13. This man received the Order of Lenin for supervising the completion of the Moscow subway system. This man oversaw the assimilation of Eastern Poland following the Soviet invasion in 1940. This leader served as a political adviser during the siege of Stalingrad. This man initiated his namesake "Thaw" after delivering the Secret Speech in 1956, which denounced Stalin's excesses. This leader allegedly banged a shoe on his desk at a 1960 United Nations meeting. For 10 points, name this premier of the Soviet Union during the Cuban Missile Crisis.

ANSWER: Nikita Sergeyevich Khrushchev

030-10-20-10113

14. The main character of this story explained his rejection of his inheritance to his cousin Cass Edmonds. At one point in this story, Boon and Isaac make a trip to Memphis to get more whiskey and are singled out for their filthy clothing. A fyce named Lion is adopted, by Sam Feather in this work, and Major de Spain owns the land on which this story takes place. This work is found in its author's novel *Go Down, Moses*. For 10 points, name this William Faulkner story in which Ike McCaslin kills the title animal named Old Ben.

ANSWER: "The Bear"

030-10-20-10114

15. Addition of this compound to solutions tests for proteins in the xathoproteic test. A common laboratory demonstration shows the oxidation of copper when placed in a solution of this molecule. This molecule is made in the Ostwald process, which oxidizes ammonia and then reacts it with water. It combines with hydrochloric acid to make aqua regia. For 10 points, name this acid with chemical formula HNO<sub>3</sub>. ANSWER: **nitric** acid [or **HNO**<sub>3</sub> before mentioned]



1A. In biology, what term is used to describe the life cycle of organisms such as some types of ferns that exist in a haploid and then a diploid stage?

ANSWER: alternation of generations (accept metagenesis)

1B. Name the group, led by Mao's wife Jiang Qing (JEE-ahng CHING), who directed the late Cultural Revolution and tried to seize power after Mao's death.

ANSWER: **Gang of Four** [or **Siren Bang**]

2A. What war saw engagements at Sinop, Sevastopol, and Balaclava, the latter of which saw the Charge of the Light Brigade?

ANSWER: Crimean War

2B. What unit of astronomical distance is about 3.26 light years and is defined as the distance of a star with a parallax of one arc second?

ANSWER: parsec

3A. This is a 10-second calculation question. There are eighteen porta potties. If two porta potties are occupied with women and twice as many are occupied with men, what is the probability of choosing an empty porta potty?

ANSWER: 2/3

3B. This is a 10-second calculation question. What is the area of a trapezoid whose parallel sides measure 6 and 10 and whose height is 5?

ANSWER: **40** 

4A. Which quantity, measured in newton metres, is the rotational analogue of force?

ANSWER: torque

4B. Al Franken and James Coburn, among the most liberal and conservative Senators respectively, united in March 2010 to oppose a bill imposing a death sentence for homosexuality in what African country, where president Yoweri Museveni also contends with a longtime insurrection from the Lord's Resistance Army?

ANSWER: Republic of **Uganda** [or Jamhuri ya **Uganda**]

5A. This is a 20-second calculation question. What is the variance of the set {3, 5, 7}?

**ANSWER: 2** 

5B. This is a 20-second calculation question. If x = 2, find the solution for z in x+y=.5z, z+y-3.5=x, y=xz-2.

ANSWER: z = 2.5 or z = 5/2

6A. This is the numbering system used by all modern computers, which consists entirely of zeroes and ones.

ANSWER: binary or base two

6B. Henry David Thoreau urges "This people must cease to hold slaves, and to make war on Mexico, though it cost them their existence as a people," in what pamphlet, explaining the author's decision not to pay a poll tax and thoughts on unjust laws in general?

ANSWER: "Civil Disobedience" [or "Resistance to Civil Government"]

7A. This is a 30-second calculation question. What is the length of the hypotenuse of a triangle whose legs sum to 31 and whose difference is 17?

ANSWER: 25

7B. This is a 30-second calculation question. What is the solution to the system of equations 4x + 2y + z = 8; -3x + 3y + 1z = 2; and 2x - 8y + 3z = 0?

ANSWER: x = 1; y = 1; z = 2

8A. Stephen Kumalo discovers his sister Gertrude is a prostitute and his son Absalom has murdered Arthur Jarvis in what novel by Alan Paton?

ANSWER: Cry, the Beloved Country

8B. Name the Alaskan mountain, first ascended by Hudson Stuck, which is the highest peak in North America.

ANSWER: Mount McKinley [or Denali]

9A. What Italian composer wrote the operas *Nabucco*, *La traviatta*, and *Rigoletto*?

ANSWER: Giuseppe Verdi

9B. Which composer's Fifth Symphony begins with a dramatic G/G/G/E-flat, described as "fate knocking at the door"?

ANSWER: Ludwig van Beethoven

10A. Name the South American country whose capital on the slopes of the Pichincha volcano is the second highest capital city in the world, Quito.

ANSWER: Republic of **Ecuador** [or Republica del **Ecuador**]

10B. Name the 19th-century French artist who caused controversy with such works as *Luncheon on the Grass* and *Olympia*.

ANSWER: Edouard Manet



## VHSL Regular Season 2010-2011 Round 18 Third Period, Fifteen Tossups

1. This substance's namesake "drag theory" gained support in the Fizeau experiment. Lorentz transformations were first proposed to scale from this substance's "rest system" to a "moving system." The existence of this substance was discredited by the null result of the Michelson-Morley experiment. For 10 points, name this now-discredited theoretical substance that was thought to be the medium that carries light. ANSWER: luminiferous <u>ether</u> [or <u>aether</u>]

026-10-20-10117

2. At Colonus, this god was known as Hippios, and he was the divine ancestor of the royal families of Thessaly and Messenia. This god was the father of a man who stretched and chopped people into fitting into his bed, Procrustes, and this god's main festival was the Isthmia. He saw to Odysseus' stranding on Calypso's island due to Odysseus blinding his son, the cyclops Polyphemus.For 10 points, name this Greek god of the sea.

ANSWER: Poseidon

030-10-20-10118

3. In 1997 this school's men's basketball team lost to fifteen-seeded Coppin State in the NCAA Men's Basketball tournament. This school's highest-ever football ranking, in 1984, came just prior to a loss at Navy, part of the so-called "chicken curse" that also explained why it lost to Kentucky the week after upsetting number one Alabama in 2010. For 10 points, name this university whose sports teams are known as the Gamecocks and whose football team is currently coached by Steve Spurrier.

ANSWER: University of **South Carolina** [prompt on **USC**]

003-10-20-10119

4. This system inspired subsequent projects such as Louis Couturat's Ido and Otto Jespersen's Novial. It was invented by an eye doctor who called himself "Doctor Hopeful" and hoped that this creation would end the Polish-Russian and Jewish-Christian strife that permeated his youth. It marks plurals with "oj," has only one article, "la," and has accumulated only about 100,000 speakers. For 10 points, identify this artificial language invented by Ludwig Zamehof.

ANSWER: **Esperanto** 

019-10-20-10120

5. A coastline shares these shapes' property of having increasingly longer lengths when measured with shorter and shorter rulers. Because of that property, when these shapes have a depth of infinity, they have both an infinite perimeter and a finite area. Examples of these shapes include the Sierpinski gasket, the Koch Snowflake, which is created by successively adding triangles to each side of an equilateral triangle, and the Mandelbrot set. For 10 points, name these shapes which exhibit self-similarity on large scales. ANSWER: **fractals** 

004-10-20-10121

6. This man claimed that the doctrine of popular sovereignty could coexist with the *Dred Scott* decision during an explanation of his Freeport Doctrine. This man led a faction of a party whose other faction was led by John C. Breckenridge in the 1860 presidential election. Known as "The Little Giant," this politician was instrumental getting the Kansas-Nebraska Act passed. For 10 points, name this Democratic Illinois Senator who engaged in a famous series of debates in 1858 with Abraham Lincoln.

ANSWER: Stephen **Douglas** 

7. This man's wife and mother were killed by troops led by Jose Maria Carrasco. While living at Fort Sill, this man was expelled from the Dutch Reformed Church due to his gambling habit. This man's escape from the Canon de Los Embudos resulted in the replacement of George Crook. This man was pursued and possibly captured by Henry Lawton. For 10 points, name this Apache leader who surrendered at the Skeleton Canyon Conference in 1886 to General Nelson Miles.

ANSWER: **Geronimo** [or **Goyathlay**]

030-10-20-10123

8. A planned sequel to this song is planned to be released on the album *Loud*. The music video includes actors Dominic Monaghan and Megan Fox and features a burning house as well as the main characters becoming enveloped in flames. It claims that people fall back into the same patterns and the same routines and laments the tempers of the two central characters, who are compared to a tornado and a volcano. A different singer claims that she likes the way it hurts before singing the title line. For 10 points, name this collaboration by Rihanna and Eminem.

ANSWER: "Love the Way You Lie"

040-10-20-10124

9. The northern edge of this biome often features krumholtz vegetation, and it features spodosol soils. The larch is one of the four dominant plant genera in this largest land biome. The northern limit of this biome, above which shallow permafrost prevents wooded vegetation, is the tree line. For 10 points, name this subarctic biome also known as "boreal forest", dominated by coniferous evergreen trees.

ANSWER: taiga [or boreal forest; prompt on "subarctic" before mention]

082-10-20-10125

10. Near the end of this novel, several characters, including the abandoned wife Clara Pegotty, sail to Australia to begin a new life. Earlier in this book, the title character is subjected to the headmaster Mr. Creakle at Salem House as punishment for biting Mr. Murdstone. Much of the plot is resolved when Mr. Micawber exposes the embezzlement of Uriah Heep. Combined with the death of Dora Spenlow, that revelation allows the protagonist to marry Agnes Wickfield. For 10 points, identify this semi-autobiographical novel by Charles Dickens.

ANSWER: **David Copperfield** 

019-10-20-10126

11. This thinker attacked casuistry in a work published under the pseudonym Louis de Montalte, intended as a defense of Antoine Arnauld. This author defended the *Augustinus* in his *Provincial Letters*. This Jansenist argued that it was worth believing in God because, even if there is a low probability that God exists, there is an infinite payoff if he does. For 10 points, name this French thinker with a namesake "wager" who authored the *Pensées*.

ANSWER: Blaise Pascal

12. This city's "Strategic Framework Plan" was recently introduced by its current mayor, a former NBA player. That man, Dave Bing, defeated Kenneth Cockrel, Jr. in a 2009 election following the resignation of another mayor of this city. The murder of a stripper at this city's Manoogian mansion and a text-messaging scandal led to the 2008 incarceration of its former mayor Kwame Kilpatrick. Currently facing an unemployment rate of over 13%, this city is also home to the headquarters of General Motors. For 10 points, name this city, the capital of Michigan.

ANSWER: **Detroit**, Michigan

083-10-20-10128

13. One form of this disorder is known as Still's disease, and chronic persistent Lyme disease is sometimes known as the Lyme form of this disorder. Often a side disorder of lupus, this disorder is typically caused by the breakdown of cartilage, though one form is caused by a buildup of uric acid and is known as gout. Though the "osteo" type is the most common, if stiffness lasts for more than an hour, it is classified as the rheumatoid type. For 10 points, name this inflammation of joints.

ANSWER: arthritis

003-10-20-10129

14. One type of this process was described as being limited to a magic number of seven plus or minus two, and that type of this process can be improved by chunking. A temporary problem with another type of this process that occurs about once a week is called the tip of the tongue phenomenon. A fugue state can result from a loss of this, and it can be repressed after a traumatic event. For 10 points, name this process that is lost during amnesia, and which comes in short-term and long-term varieties to help people recall information.

ANSWER: short-term **memory** [or long-term **memory**]

023-10-20-10130

15. One book of this type includes a thirteen-point program for practicing virtues such as moderation, frugality, and industry every day. Another book of this type includes a chapter contrasting "The Dynamo and the Virgin." Alex Haley collaborated on another book of this type, which describes the pilgrimage to Mecca of a man who breaks with Elijah Muhammad and leaves the Nation of Islam. Influential examples of these types of books in American literature were written by Henry Adams, Benjamin Franklin, and Malcolm X. For 10 points, name this type of book in which a person describes the events of his or her life.

ANSWER: <u>autobiography</u> [or <u>autobiographies</u>]



VHSL Regular Season 2010-2011 Round 18 Tiebreaker Questions

1. Peter Wason demonstrated one type of this concept when he showed that most people only turned over one card to test a rule. In addition to the "confirmation" type, a "self-serving" type occurs when people take credit for their success but blame others or outside factors for their failures. Polls must take into account the statistical type of this concept in order to present accurate information. Another type of it alleges that whatever side of politics you are on, the media presents the other side more positively. For 10 points, give the term for a systematic skewing of preferences,

ANSWER: bias

003-10-20-10132

2. Among this man's inventions are an improved gyrocompass and, with Leo Szilard, a refrigerator that cooled using only heat as an input. One formula attributed to this man states that energy equals Planck's constant times the frequency of radiation. Another states that in the same reference frame, gravity and acceleration are locally equal, and is known as the equivalence principle. A third formula states that rest energy equals mass times the square of the speed of light. For 10 points, name this Swiss physicist who explained the photoelectric effect, developed general relativity, and formulated the equation E equals m c squared.

ANSWER: Albert Einstein

003-10-20-10133

3. One part of this work describes souls that appear like snowflake falling upward towards the Empyrean, and at the end of that section, St. Bernard provides final instructions. The composer Casella plays a song as people enter another section of this work. In another section of this work, Paolo and Francesca are buffeted by a hot wind. That part of this work includes an ice lake called Cocytus, which imprisons Lucifer. Featuring a tour of Paradise, Purgatory, and the Inferno, for 10 points, name this work by Dante Alighieri.

ANSWER: The <u>Divine Comedy</u> [or La <u>Divina Commedia</u>]

030-10-20-10134

4. It is especially high for the owners of mines, while for the owners of farms it is higher for irrigated lands rather than lands that are watered by rainfall. It is also imposed on owners of more than thirty cows or buffalo or owners of more than five camels. Descendants of Muhammad are ineligible to receive it, and the usual rate charged is two and a half percent. Known as "zakat," for 10 points, name this pillar of Islam that involves charitable donations.

ANSWER: alms-giving [accept zakat before it is read]

040-10-20-10135

5. Animals engaging in this action do not have unlimited supplies in the Lotka-Volterra model. "Stotting" is one way that animals avoid this behavior, which is also avoided by "mobbing." Engaging in this may allow a species to be an apex species. Animals that engage in this behavior are contrasted with other consumers known as detritivores. For 10 points, name this behavior in which an animal hunts prey.

ANSWER: **predation** [accept word forms like **predator**; or **hunt**ing; or **preying** on other animals; do not accept "prey"]

This is a 30-second calculation question. When no one was looking, Lex Luthor took 40 cakes; 4 cakes had silver frosting, 10 cakes had chocolate frosting and the rest had vanilla frosting. If Lex chooses to eat the cakes randomly, what is the probability that Lex will eat 2 cakes with silver frosting in a row?

ANSWER: <u>1/130</u>

026-10-20-10137

Name the current U.S. Secretary of the Treasury whose personal tax issues caused controversy during his nomination process.

ANSWER: Timothy **Geithner**