

VHSL Districts 2010-2011 Round 7 First Period, Fifteen Tossups

1. One ad campaign of this company featured testimonials of individuals such as Yo-Yo Ma and Ellen Feiss. This company hired Ridley Scott to direct an ad featuring a hammer-carrying Anya Major, which introduced one of its flagship products during Super Bowl XVIII. A more recent campaign by this company featured Justin Long and John Hodgman, who says "I'm a PC". For 10 points, name this technology company behind the "1984" commercial which has used songs such as Feist's "1 2 3 4" to sell its iPod. ANSWER: <u>Apple</u>, Inc.

2. Alexander Hamilton's "Report on Manufactures" called for a bill of this type, which was central to Henry Clay's "American System." One of these bills in 1828 inspired John Calhoun to write the "South Carolina Exposition and Protest." Herbert Hoover's signing of one of these bills in 1930 was protested by over a thousand economists, and may have worsened the Great Depression. For 10 points, name these bills, exemplified by the Hawley-Smoot bill and one "of abominations," that levy a duty on imported goods. ANSWER: **tariff**s [prompt on **tax**es; prompt on import **duty** or word forms before it is read]

026-10-22-07102

082-10-22-07101

3. This property can be used for "warning" in a process called aposematism, which is seen in poison dart frogs. A difference in this property in moths was observed near factors in a phenomenon dubbed "industrial melanism." Along with patterns, this property is mimicked in processes named for Bates and Muller that are exemplified by Monarch and Viceory butterflies. For 10 points, name this property of animals, whereby they reflect different frequencies of the visible spectrum to gain evolutionary advantages. ANSWER: **color** ation

026-10-22-07103

4. James Challis used the work of John Couch Adams to search for this object. In 1949, Gerad Kuiper discovered what appears to be a captured asteroid orbiting this body. One of its notable satellites was discovered by William Lassell. It was Heinrich d'Arrest and Johann Galle that first spotted this object, but credit for its discovery is usually given to Le Verrier. Voyager II is the only probe to have ever visited this planet and during that mission it photographed its moon Triton. For 10 points, name this eighth planet. ANSWER: <u>Neptune</u>

001-10-22-07104

5. This god briefly regained life after his wife transformed into a kite to wave air into him. During the Middle Kingdom the god Ptah became assimilated with this god, and this god's son is typically depicted with the head of a falcon. Along with his brother the god of chaos this god was one of two sons of Geb and Nut and this god was also the father of Horus and husband of Isis. This god was killed by his brother Seth, who chopped up his body into many pieces. For 10 points, name this Egyptian god of the underworld. ANSWER: <u>Osiris</u>

064-10-22-07105

6. A new edition of the notes and manuscript of this man's unfinished final novel was published in 2010 as *Three Days Before the Shooting*. He published a collection of critical essays in *Shadow and Act*, and wrote about a man who wins a scholarship by boxing a group of other men blindfolded in "Battle Royal." That story served as the introduction to a novel about an unnamed man who works at Liberty Paints and illuminates his lodging with 1,369 light bulbs. For 10 points, name this author of *Invisible Man*. ANSWER: Ralph Waldo **Ellison**

VHSL Districts 2010-2011 Round 7 Page 2 of 9 © 2011 HSAPQ. Questions may be distributed to teams in attendance at this tournament only, in paper form only.

7. Gradient-index ones have a variable spatial distribution of indexes. Metamaterials can be used to create "super" ones. These are subject to chromatic and spherical abberation. For thin ones, an approximation exists to the formula named for the maker of one. Converging ones include those that are biconvex. An important feature of them is their focal length. For 10 points, name these optical implements which refract light which can be found in glasses. ANSWER: <u>lens</u>

001-10-22-07107

8. This mathematician demonstrated that selecting a number from every diagonal decimal place on a list of the rational numbers and altering it by one digit produces a real number, proving that the rational numbers are not on a one-to-one correspondence with the real numbers. He selected the symbol aleph-null to represent the cardinality of the integers, and proved that infinite sets could be different sizes. For 10 points, name this nineteenth century German mathematician who founded set theory. ANSWER: Georg <u>Cantor</u>

004-10-22-07108

9. The protagonist of this novel is beaten by Mr. Thwackum after killing a partridge. A character named Benjamin Partridge is the subject of a paternity suit in this novel, whose other characters include Molly Seagrim and a navy captain named Blifil. The title character falls in love with Sophia Western, but their marriage is opposed by Squire Allworthy. For 10 points, name this picaresque novel by Henry Fielding. ANSWER: *The History of <u>Tom Jones</u>, a Foundling*

024-10-22-07109

10. This man broke through the lines of the Sacred Band of Thebes while fighting under his father at the Battle of Chaeronea. Porus fought against this ruler at the Battle of the Hydaspes, after which this man's horse Bucephalus died. This ruler was victorious in his fights against Darius III, which included the Battle of Issus. This man was taught by Aristotle and supposedly cut the Gordian knot. For 10 points, name this son of Philip II, a Macedonian king who created a large empire.

ANSWER: <u>Alexander the Great</u> [or <u>Alexander III</u> of Macedonia; prompt on <u>Alexander</u>]

11. This author noted that "Not all the vats upon the Rhine yield such an alcohol" in a poem about tasting "a liquor never brewed." This poet wrote about experiencing "a tighter breathing and zero at the bone" when encountering a snake in a poem about "a narrow fellow in the grass." This author of "I'm Nobody, Who Are You?" wrote about a carriage ride with death in another poem. For 10 points, name this reclusive American poet known as the "Belle of Amherst."

ANSWER: Emily **Dickinson**

12. This character is named for the day he is found, the Sunday after Easter. He is elected Pope of the Fools during the Festival of the Fools. In an epilogue, his skeleton is found intertwined with that of his unrequited love. This character is adopted by Archdeacon Frollo, whom he kills after learning of the death of the gypsy dancer Esmeralda. For 10 points, name this deaf and hunchbacked bell ringer of Notre-Dame in a Victor Hugo novel.

ANSWER: **Quasimodo** [prompt on "Hunchback of Notre-Dame"]

015-10-22-07112

13. John Exner developed the so-called Comprehensive System, which is based on a "4-square" approach, to interpret the results of this test. Wayne Holtzman developed a version of it that included two practice and forty-five regular questions to overcome limitations of this test. It was originally developed as a series of ten questions by a Swiss psychologist. For 10 points, name this projective personality test that asks participants to interpret a black inkblot.

ANSWER: **<u>Rorschach</u>** inkblot test [prompt on <u>inkblot</u> test before "inkblot" is read]

085-10-22-07113

14. In one opera by this composer, Leila is recognized as a woman who saved a man's life because of a necklace, and two characters sing the "Friendship Duet." Zurga and Nadir feature in that opera by this composer. In another opera, this composer wrote the "Flower Song" and told of Don Jose's murder of the title character after she spurns him for the bullfighter Escamillo. For 10 points, name this French composer of the operas *The Pearl Fishers* and *Carmen*.

ANSWER: Georges **Bizet** [or named Georges Alexandre César Léopold **Bizet**]

026-10-22-07114

15. John Wilmot wrote one of these works "against reason and mankind." One form of this genre is named after Menippus of Gadara. One work in this genre is sometimes titled *Sermones* and was written by Horace. Juvenal wrote sixteen poems in this genre, and Erasmus's *The Praise of Folly* is an example of this genre. Its Horatian form is evident in works such as *Gulliver's Travels* by Jonathan Swift. For 10 points, name this type of work which uses ridicule as a form of social criticism. ANSWER: <u>satire</u>



1A. Name the American author who helped rediscover the literature of Zora Neale Hurston and who also penned the novel *The Color Purple*.

ANSWER: Alice Malsenior Walker

1B. What a-minor bagatelle for piano by Ludwig van Beethoven is named after a mysterious dedication found on the original sheet music?

ANSWER: "Fur Elise" [or "For Elise"]

2A. In programming, what function is used to join two or more strings end-to-end into one? ANSWER: **concatenation** [or **concatenate**]

2B. What is the term for a quotation which is placed at the beginning of a literary work? ANSWER: **epigraph**

3A. This is a 10-second calculation question. What is the geometric mean of the set $\{1, 1/3, 1/9\}$? ANSWER: <u>1/3</u> [or <u>0.3</u>3 repeating]

3B. This is a 10-second calculation question. What is the height of a cylinder with radius 4 and volume 160 pi?

ANSWER: <u>10</u>

4A. Name the man of Hungarian descent who defeated Segolene Royal in 2007 to become President of France.

ANSWER: Nicolas Sarkozy [or Nicolas Paul Stéphane Sarközy de Nagy-Bocsa]

4B. Name the Chris Martin-fronted band behind the albums *Parachutes* and *A Rush of Blood to the Head*. ANSWER: <u>Coldplay</u>

5A. This is a 20-second calculation question. What is the likelihood of rolling any number on an 11-sided die thrice in a row?

ANSWER: <u>1/1331</u>

5B. This is a 20-second calculation question. What two values is x equal to in the equation $3x^2 + 13x + 4 = 0$?

ANSWER: x = -1/3 and x = -4

6A. Name the electrodynamics vector is c over four pi times E cross B.

ANSWER: **poynting** vector

6B. Which French sociologist coined the term "anomie" and wrote *The Division of Labor in Society* and *Suicide*?

ANSWER: Emile **Durkheim**

7A. This is a 30-second calculation question. What is e to the quantity i times pi divided by 6 end quantity expressed in the form a + bi?

ANSWER: one-half times the square root of 3 plus one-half i

7B. This is a 30-second calculation question. What is x equal to in the system of equations x + y + z = 105; 2x - 3y + z = 56; 3x + y - 3z = -49? ANSWER: x = 31

8A. Name the civilization whose mythos centers on the Hero Twins, whose exploits are told in the *Popul Vuh*.

ANSWER: the Mayans

8B. What organ, containing two atria and two ventricles, pumps blood to the rest of the body? ANSWER: <u>heart</u>

9A. Name the city home to such structures as the Reichstag, Brandenburg Gate, and the boulevard Unter den Linden.

ANSWER: Berlin

9B. What principle of chemistry, elucidated in 1884, states that systems in equilibrium tend to minimize the effects of changes to that equilibrium?

ANSWER: Le Chatelier's principle

10A. What city's imperial ambitions led to a war over its domination of the Delian League? ANSWER: <u>Athens</u> [or <u>Athenai</u>]

10B. What term is appended to Levenshtein in computer science to quantify the difference between two strings and is also equal to speed multiplied by time? ANSWER: <u>distance</u>

VHSL Districts 2010-2011 Round 7 Third Period, Fifteen Tossups

1. One president of this country took office after its Orange Revolution and suffered dioxin poisoning in an assassination attempt in 2004. Twenty-five percent of this country's population died due to a famine known as the Holodomor, exacerbated by the policies of Joseph Stalin. This country's port of Sevastopol was besieged during a mid-nineteenth century war that took place on a peninsula. For 10 points, identify this country that controls the Crimea and has a capital of Kiev.

ANSWER: Ukraine [or Ukrayina]

2. This particle was discovered in an experiment in which alpha particles caused the disintegration of beryllium. Crystal structures can be determined through a technique known as this particle's "scattering." This common catalyst for fission reactions is composed of one up quark and two down quarks. The number of these particles in an atom equals the difference of atomic mass and atomic number. For 10 points, name these subatomic particles found in the nucleus, which, unlike protons, have no charge. ANSWER: <u>neutron</u>

3. One action done by this group evolved from the Bojinka plot in the Philippines. This group targeted two embassies in East Africa prior to attacking a docked naval destroyer in Yemen. These masterminds of the U.S.S. *Cole* bombing selected Khalid Shaikh Mohammed and Mohamed Atta to carry out four simultaneous attacks, two of which involved Flight 93 and the Pentagon. For 10 points, name this organization behind the 9/11 attacks led by Osama bin-Laden. ANSWER: al-**Qaeda**

4. One man with this surname was nearly elected Vice President over John Adams during Washington's second term, and later succeeded Aaron Burr as Jefferson's Vice President. Another man with this surname was a New York politician who was the driving force behind the construction of the Erie Canal. A president with this surname faced the Whitewater Scandal. For 10 points, identify this surname of New York governor DeWitt, Vice President George, and President Bill, who defeated George H.W. Bush in 1992.

ANSWER: Clinton

026-10-22-07120

5. This man wrote about Will Farnaby's shipwreck on the island of Pala in the utopian novel *Island*. Another of his novels takes its title from Milton's *Samson Agonistes*, while a third novel is about a country house whose history is told by Henry Wimbush. Those novels are *Eyeless in Gaza* and *Crome Yellow*, respectively. His most famous novel features Lenina Crowne and Bernard Marx, both of whom take the drug soma. For 10 points, name this author of *Brave New World*. ANSWER: Aldous Leonard Huxley

024-10-22-07121

001-10-22-07122

6. One tributary of this river drains the Khorat Plateau. That tributary is the Mun. The Khone Falls blocks prevents navigating this river into one country. The Za Qu River is its primary source. This river is home to an exceptionally large species of giant catfish. Tonlé Sap drains into this river. Phnom Penh is located along this river which makes up the border between Thailand and Laos. For 10 points, name this large river of southeast Asia whose delta is in Vietnam. ANSWER: <u>Mekong</u> River

003-10-22-07118

7. This NFL team's current stadium was the first to install FieldTurf, and their stadium has a scoreboard dedicated to displaying the opposing teams' false starts. The only Hall of Famer to be inducted as a member of this team was wide receiver Steve Largent. Their only Super Bowl appearance was a 21-10 loss in Super Bowl XL to the Steelers. For 10 points, name this Matt Hasselbeck-quarterbacked NFL franchise who recently became the first team to win its division, the NFC West, with a losing record. ANSWER: Seattle Seahawks [or Seattle Seahawks]

082-10-22-07123

8. In this story, a man named Old Man Warner calls young people a "pack of crazy fools" who want to go back to living in caves. A central object in this story is a battered black box that Mr. Summers talks about replacing but never gets around to. Tessie Hutchinson arrives late and is dismayed to pick the piece of paper with a black mark on it, resulting in her stoning. For 10 points, name this macabre story about a small-town ritual by Shirley Jackson. ANSWER: "The <u>Lottery</u>"

015-10-22-07124

082-10-22-07125

051-10-22-07126

9. Suburbs of this city include Gretna and Kenner. Treme is a notable African-American neighborhood in this city, and the old red-light district was known as Storyville. The Canal Street, Riverfront, and St. Charles Street lines are all that remains of this city's historic streetcar system. For 10 points, name this city south of Lake Ponchartrain whose Lower Ninth Ward was devastated by Hurricane Katrina and whose French Quarter is famous for Mardi Gras.

ANSWER: New Orleans

10. The uppermost portion of this region splits into two during the day, and its composition is altered by the presence of sunspots. This structure's existence was confirmed by Edward Appleton, and its F layer was named for him. The D layer, which absorbs high frequency radio waves, diminishes greatly after sunset. For 10 points, solar radiation can dislodge electrons from gas atoms in what region of the atmosphere? ANSWER: **ionosphere**

11. John Filo won a Pulitzer Prize for his photograph of Mary Ann Vecchio kneeling over Jeffrey Miller during this event. This event was presaged by the burning of an ROTC station that caused Governor James Rhodes to threaten martial law. This event was prompted by tensions resulting from protests over the expansion of the Vietnam War into Cambodia and resulted in the death of four students. For 10 points, name this 1970 incident in which the Ohio National Guard shot students at an Ohio university. ANSWER: Kent State shootings [or May 4 massacre; or Kent State massacre]

015-10-22-07127

12. The narrator of this work notes that his old teacher, Brunetto Latini, seemed to be "one who wins, and not the one who loses." The author begins this work with the line "Nel mezzo del cammin di nostra vita" and describes meeting a leopard, a lion, and a wolf in the dark forest. Afterward, this work describes the fate of Paolo and Francesca, as well as the icy realm of Cocytus, where Satan chews on Judas, Brutus, and Cassius. For 10 points, name this first part of the Divine Comedy, a description of Hell by Dante. ANSWER: Dante's *Inferno* [prompt on *The Divine Comedy* or *La Divina Commedia*]

13. One member of this phylum was the textbook "keystone organism," whose biological impact is large proportionate to its biomass in an ecosystem. Members of this phylum have exterior "tube feet," which are extensions of their water vascular systems. This phylum contains radially symmetric organisms like sea cucumbers, sand dollars, and crinoids. For 10 points, name this animal phylum whose members include starfish and sea urchins, the name of which means "spiny skinned." ANSWER: echinodermata [or echinoderms]

026-10-22-07129

14. Greek, Latin, and English all use this case to express partitivity. To form this case on a Russian masculine noun, one must replace any trailing *ee krot-KOY-eh* with *YAH* and add "a" (AH). In German, it is marked by the articles "einer," "eines," "des," and "der" and known as "der Wesfall." For 10 points, identify this case, which is often translated using the word "of" and is used to express possession. ANSWER: **genitive** case

019-10-22-07130

15. This figure's birthday is celebrated on the 8th of the 4th month of Chinese lunar calendar, and many of the myths surrounding his birth are collected in the *Jataka* tales. This figure delivered his first sermon in the Deer Park at Benares. His witnessing of the Four Sights and his meditation under the Bodhi tree led him to the Four Noble Truths. For 10 points, name this founder of Indian religion with Theravadan and Mahayanan sects, also known as Siddhartha Guatama.

ANSWER: the Sakyamuni **<u>Buddha</u>** [or <u>Siddhartha</u> before it is read; or <u>Guatama</u> before it is read]



VHSL Districts 2010-2011 Round 7 Tiebreaker Questions

1. This artist created a series of forty-one woodcuts depicting a skeleton intervening in the lives of everyday subjects, which is his depiction of the *Dance of Death*. Upon moving to England in 1526, he befriended Thomas More and painted an imposing portrait of a standing Henry VIII. Another of his paintings portrays Jean de Dinteville and George de Selve standing in front of table of various objects and an anamorphic skull. For 10 points, name this German painter of *The Ambassadors*. ANSWER: Hans Holbein the Younger [prompt on Holbein]

004-10-22-07132

2. The Cope rearrangement and hydrogen shifts are examples of reactions categorized by the relocation of these. These do not have a nodal plane containing the internuclear axis, but they do posses cylindrical symmetry. These have a region of overlap directly between the atoms. As alkanes are singly bonded, this is the type of bond between atoms. This bond can be formed from overlap of two s orbitals. For 10 points, name this strong bond that is contrasted with a pi bond. ANSWER: **sigma** bonds

001-10-22-07133

3. One controversy surrounding this event was its inclusion on forms of the word "negro" and the decision that Hispanic origins would not be considered a race. Minnesota Representative Michelle Bachmann announced publicly that she would not fully fill out her form for it. As a result of this event, Texas and Florida will gain electoral votes for the 2012 presidential election. For 10 points, name this event that takes place every ten years and counts the total number of citizens.

ANSWER: <u>2010</u> United Statrs <u>Census</u> [or <u>Twenty-third</u> United States <u>Census</u>; prompt on U.S. <u>census</u>] 023-10-22-07134

4. Servants at this house include the religious fanatic Joseph and the housekeeper Zillah. The housekeeper Nelly Dean tells the story of this house to Lockwood. This house is four miles away from Thrushcross Grange, which is owned by Edgar Linton. This house is inherited by the cruel Hindley Earnshaw, whose abuse of an orphan motivates the action of the novel it appears in. For 10 points, name this home of Heathcliff and Catherine Earnshaw, the setting of Emily Bronte's only novel. ANSWER: <u>Wuthering Heights</u>

015-10-22-07135

5. An injunction secured by Richard Olney led to the arrest of this man. Along with Big Bill Haywood and Mother Jones, this man helped found a new organization in 1905. Clarence Darrow represented him after he was arrested for his role in the Pullman Strike. He was later arrested under the Espionage Act after protesting U.S. involvement in World War I. For 10 points, name this founding member of the IWW and American labor leader who ran in 1920 for President with the Socialist Party while in prison. ANSWER: Eugene Victor **Debs**

064-10-22-07136

What poet of "Do Not Go Gentle Into that Good Night" discussed his provincial upbringing in "A Child's Christmas in Wales?" ANSWER: Dylan Marlais <u>Thomas</u>

064-10-22-07137

This is a calculation question. What are the non-ninety degree angles of a right triangle with sides of length 2, 2 times square root of 3 and 4?

ANSWER: 30 degrees and 60 degrees [or pi/6 radians and pi/3 radians]

064-10-22-07137

VHSL Districts 2010-2011 Round 7 Page 9 of 9

© 2011 HSAPQ. Questions may be distributed to teams in attendance at this tournament only, in paper form only.