

VHSL Regular Season 2010-2011 Round 29 First Period, Fifteen Tossups

1. This novel's opening contains a musing on the fact that people establish a cemetery and a prison as the first two buildings when they build a new colony. In one scene from this novel, a meteor streaming across the sky is interpreted to have a differing meaning by the townsfolk and by a group of three people who see it from atop a scaffold. This novel's main character is unable to stand in the sun while in the forest with her daughter, Pearl. This is, allegorically, because of her affair with Arthur Dimmesdale. For 10 points, name this Nathaniel Hawthorne novel in which Hester Prynne wears the titular badge to signify her adultery.

ANSWER: The Scarlet Letter

040-10-21-08101

2. King Juan Carlos of Spain and Grand Duke Henri of Luxembourg trace their lineage to this dynasty. Prior to the election of its founder as King of France, the ancestral family from which this dynasty is derived were known as the Robertians. Cadet Branches of this Dynasty include the Braganza, the Valois, and the Bourbon. Formed in 987 after the fall of the Carolingian dynasty, for 10 points, name this Frankish dynasty named from the nickname of its founder Hugh.

ANSWER: Capetian Dynasty

084-10-21-08102

3. He's not Jacque Louis-David (dah-VEED), but this man painted some men taking an oath by crossing their swords with a one-eyed Batavian chieftain in his *The Conspiracy of Claudius Civilis*. He also painted a Babylonian king watching as a disembodied hand writes illuminated Hebrew letters upon a wall. Other works by this painter of *Belshazzar's Feast* show a cadaver being cut open by Dr. Nicolaes Tulp and the shooting company of Captain Frans Banning Cocq. For 10 points, name this Dutchman who painted *The Anatomy Lesson* and *The Night Watch*.

ANSWER: **Rembrandt** Harmenszoon **van Rijn** [accept either underlined name]

079-10-21-08103

4. The value for a field created by this property can be calculated using the Biot-Savart Law (BEE-oh sah-VAHR). Two wires that have this property pointing in the same direction will be attracted to one another. The right hand rule gives the direction of this property along the thumb if the direction of the magnetic field is known. This value is equal to voltage over resistance according to Ohm's Law. For 10 points, name this flow of charge measured in amperes, which can also be direct or alternating.

ANSWER: electric current

023-10-21-08104

5. In this novel, the protagonist's wife is raped by Phil Connor, and the protagonist's final job in this novel is at Tommy Hind's hotel. Mike Scully's War-Whoop League provides political favor to impoverished workers in this novel. This novel begins with the traditional Lithuanian Veselija wedding feast in which Ona and the protagonist, Jurgis Rudkus, are married in Packingtown. For 10 points, name this novel by Upton Sinclair that graphically described Chicago's meat industry.

ANSWER: The **Jungle**

6. One measure of activity in this organ is the QRS complex, which is larger than the P wave because of the mass disparity between the sub-sections of this organ that are connected to a "semilunar" structure and ones that receive the "superior" and "inferior" vena cava. A systolic and diastolic pressure are associated with this organ, which contains the bundles of His, the tricuspid valve, and a region known as the pacemaker. For 10 points, two ventricles and atria are located in the human version of which organ that pumps blood to the body?

ANSWER: heart

020-10-21-08106

7. In a poem written by Horace Smith in response to this poem, Smith wonders "What powerful but unrecorded race / Once dwelt in that annihilated place." This poem's narrator recalls how he met "a traveler from an antique land," and how that traveler told him about a "wrinkled lip" and a "sneer of cold command" that are captured in the emotions conveyed by the statue of the titular figure. This poem describes a statue whose pedestal states "Look on my works, ye Mighty, and despair!" For 10 points, name this poem inspired by a sculpture of an Egyptian pharaoh, written by Percy Shelley.

ANSWER: "Ozymandias"

040-10-21-08107

8. This principle's effects can be seen in a change in pressure through the use of a Cartesian devil. The value for this property is equal in a single system for all objects that have the same volume. This force has a value for a given object that is equal to total weight of all the fluid displaced by that object. That idea about this property is known as Archimedes' Principle. For 10 points, name this force that acts as an upward force against a submerged object and can cause some objects to float.

ANSWER: **buoyancy** [or **buoyant** force]

023-10-21-08108

9. Publishing sequences of this type of poem became popular in England after the publication of Sir Philip Sidney's *Astrophel and Stella*. In this type of poem, the volta, or turn, often comes in the ninth line. One poet wrote primarily in his own form of this style to his love Laura. Another writer who names a form of this type of poem wrote ones including "My mistress' eyes are nothing like the sun" and "Shall I compare thee to a summer's day." For 10 points, name this poetic form used by Petrarch and Shakespeare, consisting of fourteen lines.

ANSWER: sonnets

023-10-21-08109

10. This prophet, the son of Amittai, caused an entire city to fast and wear sackcloth, and at the end of his namesake book he becomes angry when a worm destroys a plant that was providing him shade. After boarding a ship in Joppa, God created a great storm, which prompts the other passengers to throw this prophet into the sea. Earlier, he had purposely disobeyed God's wishes by not going to the sinful city of Ninevah (NIN-ee-vuh). For 10 points, name this prophet of the Old Testament who was swallowed by a large fish.

ANSWER: Jonah

11. This writer asked "hast thou since / Purpled thy nail in blood of innocence?" in "The Flea", which was published in his early *Songs and Sonnets*. Another of his works begins "As virtuous men pass mildly away", and compares "our two souls" to the two arms of a compass. He also wrote a series of nineteen sonnets which include "Death, be not proud" and "Batter my heart, three person'd god". For 10 points, name this metaphysical poet of the Holy Sonnets and "A Valediction: Forbidding Mourning".

ANSWER: John Donne

082-10-21-08111

12. The hymn "Hold the Fort" was a popular tune of this organization. Members of this organization were responsible for the Rock Springs Massacre, which resulted in the deaths of dozens of Chinese miners. It achieved its greatest influence under Terrence Powderly, and its founder Uriah Stephens emphasized secret rituals. For 10 points, name this first major American labor organization whose influence declined after the Haymarket Square bombing.

ANSWER: Noble Order of the **Knights of Labor** [or **KoL**]

030-10-21-08112

13. As Chancellor of the Exchequer, this man oversaw Britain's return to the gold standard, which had negative consequences and led him to become the target of a John Maynard Keynes book attacking his actions. This man delivered such addresses as "The Gathering Storm" and "The Finest Hour." This leader was appointed to First Lord of the Admiralty near the onset of a conflict during which he rose to the post of Prime Minister. Succeeded by Clement Atlee, for 10 points, name this World War II Prime Minister of Britain.

ANSWER: Winston Leonard Spencer Churchill

040-10-21-08113

14. This man claimed to have thrown his Olympic gold medal into the Ohio River to protest the refusal of a "whites-only" restaurant to serve him. He was barred from competing from 1967 to 1970 after objecting to register for the draft, claiming "I ain't got no quarrel with the Viet Cong". After his return this convert to the Nation of Islam would regain the heavyweight title against Joe Frazier in "The Fight Of The Century". For 10 points, name this boxer who boasted he could "float like a butterfly, sting like a bee", born Cassius Clay and nicknamed "The Greatest".

ANSWER: Muhammad Ali [accept an early Cassius Marcellus Clay]

082-10-21-08114

15. Csaba Horváth did pioneering work on the high performance liquid version of this technique. Other variants include gas and thin layer. Affinity beads or an ion exchange resin are common components in the column family of this technique. Commonly a stationary and mobile phase is used. An easy to do version involves putting a strip of paper partially in a solvent like water. Its name comes from its initial use in separating out plant pigments producing different colored bands. For 10 points, name this chemistry technique used in separating mixtures.

ANSWER: chromatography



1A. What tributary of the Columbia River flows through Hell's Canyon?

ANSWER: **Snake** River

1B. What astronomer of the classical era wrote the *Almagest* and proposed a spherical universe in which everything revolved around the Earth.

ANSWER: **Ptolemy** [or Claudius **Ptolemaeus**]

2A. After a November 28 election unseated him, Laurent Gbagbo refused to step down as President of what African country?

ANSWER: Republic of <u>Cote d'Ivoire</u> [or Republique de <u>Cote d'Ivoire</u>; or <u>Ivory Coast</u>]

2B. What German composer wrote a quartet of operas known as the Ring Cycle, from which "The Ride of the Valkyries" came?

ANSWER: Wilhelm Richard Wagner

3A. This is a 10-second computation question. Suppose Cicero's grade in civics is 50% tests, 20% participation, and 30% homework. If he has a 94 average in tests, a 100 average in participation, and a 90 average in homework, what is his numerical grade?

ANSWER: 94

3B. This is a 10-second computation question. How many possible words are there of length 2. You may assume the words are being created from an alphabet of 26 letters.

ANSWER: <u>676</u>

4A. What Italian designed Rome's *Fountain of the Four Rivers* as well as the sculpture *The Ecstasy of St. Theresa*?

ANSWER: Gian Lorenzo Bernini

4B. Which class of molecules includes sub-classes such as auxins, gibberellins, cytokinins, ethylene, and abscisic acid?

ANSWER: **plant hormone**s (accept **phytohormones**)

5A. This is a 20-second computation question. Find a solution of $4\cos(x)^2-2=\operatorname{sqrt}(3)$ where x is between -2 and 0.

ANSWER: -pi/12

5B. This is a 20-second computation question. What is the volume of a cylinder with surface area 24pi and radius 2.

ANSWER: 16pi

6A. What Central European country has four official languages in German, French, Italian, and Romansch?

ANSWER: <u>Switzerland</u> [or <u>Swiss</u> Confederation; or <u>Schweiz</u>erische Eidgenossenschaft; or Confederation <u>Suisse</u>; or Confederazione <u>Svizzera</u>; or Confederazion <u>Svizzera</u>]

6B. What head of U.S. forces in Afghanistan was forced to resign following the publication of Michael Hastings' article "The Runaway General" in *Rolling Stone* magazine?

ANSWER: Stanley _McChrystal

7A. This is a 30-second computation question. Evaluate $4x^3 + 9x^2 + 3x + 1$ at x = 4i + 6.

ANSWER: -89 + 1916i

7B. This is a 30-second computation question. Factor $5x^2 + 3x + 1$ over the complex numbers.

ANSWER: $\frac{1}{20(-10ix + sqrt(11) - 3i)(10ix + sqrt(11) + 3i)}$ [or $\frac{(-1/2*ix + 1/20*sqrt(11) + i*3/20)(1/2 + 1/20*sqrt(11) + i*3/20)}$]

8A. The Ternary Operator in Java and C++ is written using what symbol along with a colon?

ANSWER: question mark

8B. What English playwright wrote *The Jew of Malta*, which ends with Barabas caught in his own boiling cauldron, as well as the play *Doctor Faustus*?

ANSWER: Christopher Marlowe

9A. Which person who wrote the screenplay for the recent film *Devil* is known for writing and directing such movies as *The Sixth Sense* and *Signs*?

ANSWER: Manoj Nelliyattu Shyamalan

9B. 3, 7, 31, and 127 are the first four examples of what type of prime number that takes the form of one less than a power of two?

ANSWER: Mersenne Primes

10A. Which country was home to the Zaibatsu, large corporate conglomerates that emerged in the wake of the Meiji Restoration?

ANSWER: **Japan** [or **Nippon**-koku]

10B. What type of molten rock forms pillow-shaped blobs underwater and is classified as either a'a (AH AH) and pahoehoe on land?

ANSWER: lava



VHSL Regular Season 2010-2011 Round 29 Third Period, Fifteen Tossups

1. This man wrote the story "A Man by the Name of Ziegler," in which the title character gains the power to understand animals and learns about their contempt for humans. This man wrote a novel about the pedagogical province of Castalia and the main character's decision to leave an order obsessed with a game played on an abacus. He also wrote a novel whose title character is a Brahma on a spiritual journey. Those novels are *The Glass Bead Game* and *Siddhartha*. For 10 points, name this author of *Steppenwolf*.

ANSWER: Hermann Hesse

030-10-21-08117

2. The Republicans supported the passage of the Sherman Silver Purchase Act in exchange for the passage of one of these types of bills named for William McKinley. In the late nineteenth century, Republicans supported high ones that encouraged protectionism. John Calhoun proposed that states could nullify federal laws in response to the passage of one of these "of abominations." For 10 points, name these taxes levied on the imports or exports of a country.

ANSWER: tariffs

004-10-21-08118

3. George Bernard Shaw referred to these things as "uncouth bacilli" and led a campaign to limit their use. This term is also used to refer to a rhetorical trope found in Edgar Allan Poe's "To Science" in which a speaker "turns away" to address a personification or abstract concept which is not physically present. For 10 points, name this figure of speech which shares its name with a punctuation mark used to indicate the possessive case and to create contractions.

ANSWER: apostrophe

082-10-21-08119

4. In a scene from this novel, a group of friends hide behind a waterfall, though in the ensuing action they suffer from the theft of much of their supplies. One comical character in this novel is David Gamut, a singer who at one point attempts to teach some beavers his gift of song. Another character agrees to set the rest of his captives free if Cora Munro will become his wife, but that man, Magua, is hunted down by Natty Bumppo, who works in conjunction with Uncas and Chingachook ("Chicago") at various points during this work. For 10 points, name this novel by James Fenimore Cooper, a part of the Leatherstocking Tales.

ANSWER: The Last of the Mohicans

040-10-21-08120

5. One work from this country written by José Hernández, *Martín Fierro*, is an example of its gaucho literature. Molina and Valentín are imprisoned in another work from this country, *Kiss of the Spider Woman*. One prolific author from this country wrote a story containing a point in space where one can see everything and another story about a library that contains every possible work of a fixed length. Those stories are "The Aleph" and "The Library of Babel." For 10 points, name this South American country home to Jorge Luis Borges which has its capital at Buenos Aires.

ANSWER: República **Argentina** [or **Argentine Republic**]

6. The Franz Joseph and Fox Glaciers can be found in this nation, notable for existing at low altitudes. Its largest lake, found in the caldera of Mount Tauhara, is drained by the Waikato River and is called Lake Taupo. Its region known as the Canterbury Plains is found to the south of Christchurch, while its tallest mountain is Mount Cook. Also including the city of Auckland, the Cook Strait separates its two constituent islands, which are called North and South Island. For 10 points, Wellington is the capital of which island nation found east of Australia?

ANSWER: New Zealand

040-10-21-08122

7. He used parallel chords, or "planing", in a piano work inspired by the myth of Ys, his prelude "The Sunken Cathedral". He parodied Clementi and Wagner in a set of piano pieces which opens with "Doctor Gradus Ad Parnassum" and was written for his daughter. Another piano work by this composer ends with a passepied, but is most famous for a D-flat major third movement inspired by a Verlaine poem. For 10 points, the *Children's Corner* suite was written by this French Impressionist whose *Suite bergamesque* includes "Clair de lune".

ANSWER: Claude **Debussy**

082-10-21-08123

8. A water aspirator or mechanical pump is used to reduce the time needed for the first step of this process in the "vacuum" type of this process. A Vigreux column is placed below the Y-adaptor in one type of the "fractional" type of this process. The "simple" type of this process heats a mixture of liquids, then condenses the resulting vapors. For 10 points, name this process of separating a mixture of liquids by boiling points.

ANSWER: distillation

003-10-21-08124

9. One of this author's title characters, Scapin, manages to keep two young couples united despite the wishes of their parents to marry them off to other people, while another of his title characters, George Dandin, finds himself an "Abashed Husband" after his marriage to Angelique. A different character named Angelique appears in another of his works; in that work, she marries Cleante despite the hypochondriac tendencies of her father Argan, who is the titular "imaginary invalid." For 10 points, name this French playwright who wrote about a man who swindles Orgon in his drama *Tartuffe*.

ANSWER: Moliere [accept Jean-Baptiste Poquelin]

040-10-21-08125

10. The expansion to the second installment in this series introduced such characters as Kurdran, who rides on a gryphon, and a dragon named Deathwing. That game, subtitled *Beyond the Dark Portal*, was the sequel to a game subtitled *Tides of Darkness*. Its better known third installment includes such titles as *Reign of Chaos* and *The Frozen Throne*, the latter of which pits Illidan against Arthas in the campaign mode. For 10 points, name this Blizzard series that includes night elves, undead, orcs, and humans and gave rise to a namesake "World".

ANSWER: Warcraft

040-10-21-08126

11. Precursors to this alliance were headed by the Hallstein and Armand Commissions. Some of this alliance's origins can be traced to the support of Alcide de Gasperi and Jean Monnet at the 1957 Treaties of Rome. The debt and deficit convergence criteria set by this organization have recently been tested by Greece and Ireland and were set by the 1992 Treaty of Maastricht. For 10 points, name this union consisting of such states as Germany and France.

ANSWER: **European Union** [or **EU**]

12. This action was the subject of a 1940 study by Franklin Burdette. Rule XXII (twenty two) offers one countermeasure to these and that rule was created after the failure of Woodrow Wilson's efforts to arm merchant ships. The use of this was preserved by the Gang of 14 and one way of getting rid of it is the "Nuclear Option." This can be stopped by a cloture vote. The longest one of these carried out by an individual in the U.S. was carried out by Strom Thurmond. Stopping one requires 60 senators. For 10 points, name this action in the U.S. Senate where a senator refuses to stop talking, thus preventing a vote on a bill.

ANSWER: filibuster

001-10-21-08128

13. One layer of this organ is divided into sublayers called germinativum, or basale, spinosum, granulosum, lucidum, and corneum. Another layer contains the apocrine glands and is connected to the former layer by the basement membrane. This organ contains a plurality of the adipose cells in the body and removes its dead cells through the process of keratinization. Analogous to reptilian scales, this organ present in sufficient density is known as "fur." For 10 points, identify this organ that consists of the epidermis and dermis, the largest organ in the human body.

ANSWER: skin

020-10-21-08129

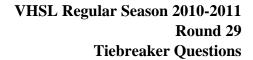
14. One story about this type of animal tells of how he got his thin legs by being greedy for food from all of his friends. Another story about that animal of this type explains how he collected three items to become the owner of all stories. In Greek myth, a woman was changed into this type of animal after she won a contest and hanged herself. That contest resulting in the creation of this animal was against Athena in creating a tapestry. For 10 points, name this insect represented by the West African trickster figure Anansi and the Greek Arachne.

ANSWER: **spider**s [or Kwaku **Anansi** before "Greek myth" is read]

023-10-21-08130

15. One blog about this area of study features contributions by Mark Liberman and Geoffrey Pullum. One concept in this field was pioneered by Zellig Harris and modified by his student, who developed rules governing wh-movement and other transformations. That student also came up with the sentence "Colorless green ideas sleep furiously" and wrote *Syntactic Structures*. For 10 points, name this field whose modern form was pioneered by Ferdinand de Saussure and Noam Chomsky.

ANSWER: linguistics





1. One of these phenomena discovered in 2006 is a leading candidate to be the first-discovered pair-instability type of them. Another type produces oxygen-rich remnants; that type, the core-collapse type, is responsible for the creation of the Crab Nebula. The thermonuclear type of these phenomena, also known as Type Ia (ONE-A), occurs in stars that have a mass less than one point four times that of the sun; that limit is known as the Chandrasekhar limit. For 10 points, name these massive explosions in which a star blows itself up.

ANSWER: supernovae

003-10-21-08132

2. The narrator of this novel believes the country is run by the "Combine" and characterizes his peers as "chronics" and "acutes." In this novel, Billy Bibbit commits suicide after being caught with a prostitute at a party. At the end of this novel, Chief Bromden escapes after smothering the protagonist, Randle McMurphy, who has been lobotomized by Nurse Ratched. For 10 points, name this novel set in a mental asylum, written by Ken Kesey.

ANSWER: One Flew Over the Cuckoo's Nest

080-10-21-08133

3. The American foreign policy of "flexible response" altered an earlier strategy of mainly relying on these weapons to prevent an attack. That strategy was based on the threat of massive retaliation. A briefcase known as the "football" contains the codes for these weapons, which are often launched from ICBMs. For 10 points, name this type of weapons that caused Japan to surrender in World War II after being dropped on Hiroshima and Nagasaki.

ANSWER: <u>nuclear</u> weapons [or equivalents such as <u>atom</u>ic <u>bomb</u>s]

004-10-21-08134

4. Along with sodium carbonate, this element's chloride is produced by the Solvay process. Ions of this element, important in muscle contraction, are found in the sarcoplasmic reticulum. Its electron configuration is argon four S two. A crystalline form of its carbonate is called limestone. For 10 points, name this alkaline earth metal found it milk that is an important structural element in teeth and bones.

ANSWER: calcium [or Ca]

079-10-21-08135

5. This President dishonorably discharged 160 black soldiers who were allegedly involved in a riot in Brownsville, Texas despite no one being indicted. He wrote the book *The Strenuous Life*. His domestic program was known as the Square Deal. This man received a Nobel Peace Prize for his mediation of the Portsmouth Peace Conference after the Russo-Japanese War. In 1912, this man ran for president with the Bull Moose Party. For 10 points, name this president who busted trusts and advocated "big stick" foreign policy.

ANSWER: Theodore Roosevelt [or Teddy Roosevelt; prompt on Roosevelt]

030-10-21-08136

Name the Prussian philosopher who devised the categorical imperative and wrote *The Critique of Pure Reason*.

ANSWER: Immanuel Kant