

VHSL Scholastic Bowl Regional Tournament 2015 Round 3 First Period, Fifteen Tossups

- 1. The Dream Stele (STEEL) can be found at the base of a monument in this city. A popular story states that a French army cannonball broke the nose of that monument in this city. A team led by Mark Lehner found the remains of a workers' village in this city, supporting the theory that slaves were not used to build three burial structures here. This city's largest monument is a tomb for Khufu (KOO-foo) and is the only remaining Wonder of the Ancient World. For 10 points, name this Egyptian city home to the Great Sphinx and three Great Pyramids. ANSWER: **Giza** [prompt on **Cairo**]
- 2. By including export *and* import compatibility, a product by this company destroyed Lotus 1-2-3. This company developed the NTFS file system and was the main developer behind the IBM-compatible DOS (dohss). This company's personal assistant software is named Cortana. In April 2014, it stopped supporting XP. For 10 points, name this Bill Gates-founded company that removed the Start Menu in its wildly unpopular operating system, Windows 8. ANSWER: **Microsoft** Corporation
- 3. This city recently decreased its default speed limit to 25 miles per hour as part of its Vision Zero push to reduce traffic violence. A former mayor of this city participated in protests against John Adams's opera *The Death of Klinghoffer*. This city's current mayor defeated Republican Joe Lhota in 2013, rehired Bill Bratton as police commissioner, and has sought to eliminate horse-drawn carriages and end stop-and-frisk. For 10 points, name this city formerly led by Rudy Giuliani and whose current mayor is Bill deBlasio, home to Lincoln Center and Central Park. ANSWER: New York City [or NYC]
- 4. The ending of a film by this director features such characters as "Miss Torso" and "Miss Lonelyheart" talking with their lovers. This director made a movie in which a woman falls to her death from a mission tower while talking with her boyfriend, a detective who is afraid of heights. In another film by this man, L.B. Jefferies is a photographer who witnesses a murder while confined to a wheelchair in his apartment. This director always made a cameo in his movies. For 10 points, name this director of suspense movies such as *Vertigo* and *Rear Window*. ANSWER: Alfred **Hitchcock**
- 5. Characters in this film play the sport Whack-Bat. A character in this film is said to "zone out" several times, which is denoted by his eyes turning into swirls. That character is Kylie the opossum. The character Kristofferson is captured when he tries to retrieve the title character's tail, which had been shot off by this film's antagonists, the farmers Boggis, Bunce, and Bean. For 10 points, name this stop-motion Wes Anderson film based on a Roald Dahl novel, which features the voices of Meryl Streep and George Clooney.

ANSWER: The Fantastic Mr. Fox

6. Gerolamo Cardano used imaginary numbers in an intermediate step to solve equations of this degree. The four faces of a regular tetrahedron each have this many sides. An ancient "Rule of" this number provides a method of solving proportions. It is the minimum number of points necessary to uniquely define a plane. It is the first odd prime and, with the integers directly succeeding it, the smallest member of a Pythagorean triple. For 10 points, name this number of sides a triangle has.

ANSWER: **three** [or **cubic** until "sides" is read]

7. A holder of this position appealed to the "Forgotten People" in a 1942 campaign speech. Another holder of this position, Harold Holt, mysteriously disappeared while swimming in 1967. This position, which was held by Robert Menzies for eighteen years, was recently held by Julia Gillard. Another holder of this position, Kevin Rudd, officially apologized to the "Stolen Generations" of Aborigines. For 10 points, identify this position currently held by Tony Abbott, who leads a parliament in Canberra.

ANSWER: <u>Prime Minister</u> of <u>Australia</u> [prompt on partial answer; do not accept "President of Australia"]

- 8. This god is harpooned by his mother while battling his rival in the form of a hippopotamus. This god paints a wooden boat to look like a stone one in order to win a boat race, and impregnates an enemy using a head of lettuce. This deity is born after his father's fourteen dismembered body parts are brought together, and he defeats the evil god Set to become the ruler of Egypt. For 10 points, name this son of Isis (EYE-siss) and Osiris (oh-SAI-riss). ANSWER: **Horus**
- 9. The protagonists of this story encounter an old man who wishes to die but cannot, and tells them they may find the person they seek under a nearby oak tree. In this story, the drunk protagonists become enraged when they hear of the murders committed by Death, and set out to kill him. After finding a large amount of gold, the three central characters of this story all betray and kill each other. For 10 points, name this story from *The Canterbury Tales* told by a corrupt preacher.

ANSWER: "The **Pardoner's Tale**" [do not prompt on "The Canterbury Tales"]

10. This man promoted his political views in a memoir titled *Faith of My Fathers*, and he drove around the country in the Straight Talk Express. During a South Carolina primary, smear ads claimed that he fathered a black child out of wedlock. This so-called "maverick Republican" and former Vietnam War POW co-sponsored a campaign finance reform bill with Russ Feingold. He controversially chose Sarah Palin as his running mate. For 10 points, name this Arizona Senator who ran for President against Barack Obama in 2008.

ANSWER: John McCain

- 11. Amino acids and bombesin (bom-BAY-sin) stimulate cells denoted with this letter to secrete a compound that activates ECL and parietal cells. This letter denotes the free monomeric form of actin. The most abundant immunoglobulin is designated with this letter. This letter denotes a class of proteins which initiate signaling cascades once activated by namesake "coupled receptors." It denotes a purine which forms three hydrogen bonds. The simplest amino acid is represented with this letter. For 10 points, name this letter of the nucleobase that bonds to C. ANSWER: **G** [or **glycine**; or **G** actin; or **G** proteins; or **guanine**; or **G** cell]
- 12. This author introduced his recurring character Pig Bodine in his debut novel about the sailor Benny Profane. At the end of another of his novels, the title auction of a collection of stamps is attended by Oedipa (ED-ip-uh) Maas. This author of *V*. also created the classically conditioned Lieutenant Tyrone Slothrop. For 10 points, name this American postmodernist who wrote *The Crying of Lot 49* and *Gravity's Rainbow*.

ANSWER: Thomas **Pynchon** 

13. Fermat's method of doing this process relies on a difference of squares. Peter Shor developed a quantum computing algorithm for doing this process. The difficulty of this process enables the security of RSA encryption. According to the Fundamental Theorem of Arithmetic, there is a unique way to do this procedure for each whole number. For 10 points, identify this procedure by which an integer is decomposed into a product of primes.

ANSWER: prime **factor**ization [or completely **factor**ing a whole number]

- 14. An artwork of this type, showing two sections of angel musicians, is still missing its Just Judges section and includes a life-size Adam and Eve. Another painting of this type has wings that open to depict the Temptation of St. Anthony, and was painted by Matthias Grunewald for a monastery in Isenheim. A painting of this type focusing on the Adoration of the Mystic Lamb was created for a chapel in Ghent by Hubert and Jan (YON) van Eyck. For 10 points, name this type of multi-paneled religious artwork which decorates the focal point of a church. ANSWER: altarpiece [or polyptych; do not accept "triptych"]
- 15. Two of this man's brothers won the Battle of Las Salinas against his rival Diego Almagro. This man ordered the death of a man who had thrown a Bible on the ground while meeting with Friar Valverde (vahl-VAIR-day). After winning the Battle of Cajamarca (cah-hah-MAR-kuh), this man received a ransom room full of gold but still executed his captive, the emperor Atahualpa (ah-tah-WAL-puh). For 10 points, name this conquistador (con-KEES-tuh-dor) who led the Spanish victory over the Inca empire.

ANSWER: Francisco <u>Pizarro</u> [Francisco <u>Pizarro</u> González]



VHSL Scholastic Bowl Regional Tournament 2014 Round 3 Directed Round

1A. What term refers to the process of imprinting a diamond pattern on the handles of tools to provide a better grip?

ANSWER: knurling

1B. In what proto-existentialist Fyodor Dostoevsky novella does the unnamed protagonist declare "I am a sick man...I am a wicked man"?

ANSWER: <u>Notes from</u> the <u>Underground</u> [or <u>Zapiski iz Podpol'ya</u>]

2A. In what Wolfgang Amadeus Mozart opera does the title character sing the duet "La ci darem la mano" (la see dah-REM lah MAH-noh) with Zerlina, but later get dragged to hell by the statue of a man he murdered?

ANSWER: <u>Don Giovanni</u> [Il Dissoluto Punito, ossia il <u>Don Giovanni</u>; or The Rake Punished, or <u>Don Giovanni</u>]

2B. What type of farm was created in the Soviet Union, causing the deaths of millions of people during the First Five-Year Plan?

ANSWER: **collective** farms [or **sovkohzy**; or **kolkhoz**y]

3A. This is a 20-second calculation question. One spherical ball has a volume of 972 pi cubic inches, while a second spherical ball has a volume of 36 pi cubic inches. What is the ratio of the two balls' radii?

**ANSWER: 3** 

3B. This is a 20-second calculation question. Convert the angle measure 7 pi over 15 radians into an equivalent measure in degrees.

ANSWER: 84 degrees

4A. What author of *The Painted Veil* and *The Moon and Sixpence* described the clubfooted Philip Carey in *Of Human Bondage*?

ANSWER: W. Somerset Maugham [William Somerset Maugham]

4B. The Battle of the Golden Spurs took place in what region, which makes up modern-day Belgium with Wallonia?

ANSWER: Flanders

5A. What leader of the American Railway Union organized the 1894 Pullman Strike and ran as a Socialist Presidential candidate from prison?

ANSWER: Eugene V. <u>Debs</u> [Eugene Victor <u>Debs</u>]

5B. What son of David is traditionally credited with writing the Biblical books Ecclesiastes (eklee-zee-AA-steez) and Song of Songs?

ANSWER: Solomon

6A. What trigonometric function is defined as the reciprocal of the sine function?

ANSWER: **cosecant** [or **csc**; do not accept "secant"]

6B. The Human Torch and Mr. Fantastic are members of what Marvel Comics superhero team? ANSWER: The **Fantastic Four** 

7A. Lev Landau received a Nobel Prize for his work involving what materials, which have zero viscosity and are exemplified by helium-4?

ANSWER: superfluids

7B. Name the portion of the human brain located below the cerebrum (suh-REEB-rum) that is essential to motor control.

ANSWER: <u>cerebellum</u> [prompt on <u>hindbrain</u>; prompt on <u>rhombencephalon</u>; prompt on <u>metencephalon</u>]

8A. This is a 30-second calculation question. Find all real solutions to the equation x cubed minus x squared minus 9 x plus 9 equals zero.

ANSWER:  $x=\underline{1}$   $x=\underline{-3}$ , and  $x=\underline{3}$  [or answers containing the numbers  $\underline{1, 3, and -3}$  in any order; do not accept partial answers]

8B. This is a 30-second calculation question. All face cards are removed from a standard deck of 52 cards. If aces count as value 1 and all other cards count as the value shown on the card, what is the expected value of a randomly drawn card?

ANSWER: <u>5.5</u>

9A. What Kenyan capital city is home to Kibera (kib-AIR-uh), one of the largest urban slums in the world?

ANSWER: Nairobi, Kenya

9B. What grammatical mood is used to indicate commands or requests, as in the Latin *noli me tangere* (NOH-lee mee TAHN-guh-ray) meaning "Don't touch me!"?

ANSWER: imperative mood

10A. What country's government was replaced by the military-led National Council for Peace and Order after a May 2014 coup?

ANSWER: Thailand [Kingdom of Thailand; or Ratcha Anachak Thai; or Prathet Thai]

10B. What autobiographical James Baldwin novel depicts the religious experiences of John Grimes and is titled after a spiritual?

ANSWER: **Go Tell It on the Mountain** 



## VHSL Scholastic Bowl Regional Tournament 2014 Round 3 Third Period, Fifteen Tossups

- 1. This man began a poem by asking, "Whither, 'midst falling dew, while glow the heavens with the last steps of day, far, through their rosy depths, dost thou pursue thy solitary way?" The speaker of another of his poems advises the reader to "go not, like the quarry-slave at night, scourged to his dungeon," but rather "to approach thy grave, like one who wraps the drapery of his couch about him, and lies down to pleasant dreams." For 10 points, name this nineteenth-century American poet of "To a Waterfowl" and "Thanatopsis" (THAA-nuh-TOP-sis). ANSWER: William Cullen **Bryant**
- 2. In a commencement address at Caltech, Richard Feynman discussed this experiment, and follow-up experiments discarding results that were too different, to illustrate "cargo cult science." This experiment's use of an erroneous assumption in conjunction with Stokes's law initially led to an inaccurate result. It used two metal electrodes to balance the downward force of gravity on its namesake objects with an electrostatic force. For 10 points, identify this experiment that measured the charge of the electron using small amounts of a certain liquid. ANSWER: Millikan's oil drop experiment [or Millikan experiment]
- 3. A man with this last name led a squadron that enforced the Webster-Ashburton Treaty's ban on the slave trade. Another man with this last name feuded with Jesse Elliott and flew a battle flag that read "DON'T GIVE UP THE SHIP." This last name is shared by a man who forced Japan to accept foreign trade, and by a man who declared "We have met the enemy and they are ours" during the Battle of Lake Erie. For 10 points, give this surname shared by Navy Commodores Matthew and Oliver Hazard.

ANSWER: **Perry** [or Matthew **Perry**; or Oliver Hazard **Perry**]

4. This poem's speaker imagines his love finding rubies by the side of the Indian Ganges (GAAN-jeez) as he complains by the tide of Humber. It includes the couplet, "The grave's a fine and private place, but none, I think, do there embrace." This poem begins by stating, "Had we but world enough, and time," the title woman's refusal "would be no crime." For 10 points, name this seduction poem by Andrew Marvell.

ANSWER: "To His Coy Mistress"

5. The Great Siege Tunnels were constructed in this territory during the American Revolution. Stone tools and other evidence of Neanderthal habitation were found at this territory's Gorman's Cave. This territory marks the western end of the Alboran (ahl-boh-RAHN) Sea and lies at the southern end of the province of Cadiz (cuh-DEEZ). This territory's namesake "strait" marks the boundary between the Mediterranean Sea and the Atlantic Ocean. For 10 points, name this British territory with a namesake "rock," located at the southern tip of Spain.

ANSWER: Gibraltar

- 6. One of these laws commands the use of yoshon (yoh-SHAHN), which is a product older than the yearly Omer (OH-mur) sacrifice. A particularly strict interpretation of these laws is often advertised with the term "glatt" (GLOTT). Products certified under these laws bear a "hechsher" (HEK-shur), and animals killed in accordance with them are subject to shechita (shuh-HEE-tuh). Items which do not conform to these laws are "traif" (TRAYF), and include any mixture of meat and milk as well as blood and pork. For 10 points, give the term for Jewish dietary laws. ANSWER: **kosher** [or **kashrut**]
- 7. The cowardly soldier Epeius (ehp-EY-us) built this object. After his ears and nose are cut off, Sinon (SYE-non) finally explains that this object is an offering to Athena. Helen stands outside this object and imitates the voices of several women. Laocoon (lay-AH-coh-on) was blinded and strangled by snakes for trying to have this object burned. This object, first mentioned in the Aeneid (uh-NEE-ud), prompts Virgil's phrase "I fear Greeks, even those bearing gifts." For 10 points, name this animal-shaped object concealing the soldiers who captured Troy. ANSWER: **Trojan Horse**

8. A dialect of this language uses the verb "to be" in its infinitive form to express habitual actions. This language is a superstrate of the Polynesian creole language Tok Pisin. William Labov studied this language's Northern Cities Vowel Shift. Between its Middle and Early Modern forms, this language underwent the Great Vowel Shift. Dialects of this language include Received Pronunciation, AAVE, and Cockney. For 10 points, name this West Germanic language, the majority language of the United States.

ANSWER: English

- 9. This leader of the "Young Wolves" was nicknamed the "bulldozer" for his blunt style. A state visit by this man led to the selling of the Osirak (AH-suh-rak) nuclear reactor to Saddam Hussein. Francois (fran-SWAH) Mitterrand shared power with this man in the "cohabitation." As prime minister, this longtime mayor of Paris declared a state of emergency during riots led by residents of banlieue (bon-LOO) housing projects. For 10 points, name this predecessor of Nicolas Sarkozy (sair-koh-ZEE), a French Prime Minister who opposed the Iraq War. ANSWER: Jacques Chirac [Jacques Rene Chirac]
- 10. This technique is used in the Castner-Kellner process to make sodium hydroxide. The mass made by this process is proportional to both the current and the equivalent weight, according to two laws of Michael Faraday. Fleischmann and Pons did this procedure to heavy water, allegedly causing cold fusion. The Hall-Heroult process uses this technique on molten cryolite (CRYE-ohlite) to make aluminum. When done to water, it releases oxygen and hydrogen gas. For 10 points, name this process of splitting apart molecules with an electric current.

ANSWER: **electrolysis** [or **electrolytic** cell]

- 11. This coach was a student at Kent State and narrowly avoided being at the protest during the 1970 shootings. He left a job coaching Toledo to become Bill Belichick's defensive coordinator at Cleveland and later coached against Belichick when leading the 2005 Miami Dolphins. He is the only coach to win an NCAA title with two different SEC teams, having previously won with LSU. This coach's team shockingly lost the 2013 Iron Bowl to in-state rival Auburn. For 10 points, name this coach of the Alabama Crimson Tide football team.

  ANSWER: Nick Saban [Nicholas Saban, Jr.]
- 12. The speaker of a poem by an author from this country cries "I will not see it!," lamenting an event that occurred "at five in the afternoon." That poet from this country wrote the collections *Poet in New York* and *Gypsy Ballads* and was killed during a civil war. The protagonist of a novel set in this country quests in the name of the beautiful Dulcinea (dool-suh-NAY-uh) and attacks windmills he mistakes for giants. For 10 points, name this home country of Federico Garcia Lorca and the author of *Don Quixote* (kee-HOH-tay), Miguel de Cervantes.

  ANSWER: **Spain** [Kingdom of **Spain**; or Reino de **España**]
- 13. Youth in this city had to steal cheese from the Temple of Orthia. This city was ruled by two kings of the Agiad (EY-jee-ad) and Eurypontid (yur-uh-PON-tid) dynasties who shared power with the five ephors (EE-forz). After this city won the Battle of Aegospotami (EYE-goh-SPAH-toh-mee), it patronized the Thirty Tyrants. This city used slaves called helots (HEH-lots). Leonidas (LEE-uh-NYE-dus) led an army from this city at the Battle of Thermopylae (thur-MOP-uh-lai). For 10 points, name this militant Greek city state, the rival of Athens. ANSWER: **Sparta** [or **Lacedaemon**]
- 14. This process occurs often in microsatellite instability. Molecular clocks use the fixation rate of this process's neutral kind. The "somatic hyper-" form of this process in the variable domain lets antibodies respond to a wide range of molecules. Cancer can result from a loss-of-function type of this process in p53. Indels, or insertions and deletions, can cause the "frameshift" form of this event. In its "silent" version, a base is exchanged without changing the protein code. For 10 points, name this mechanism of evolution in which a genetic sequence is changed.

  ANSWER: mutations [or more specific kinds of mutation; prompt on substitution; prompt on molecular evolution]
- 15. This symphony's first movement includes a theme based on the composer's aria "Un bacio di mano" (oon BAH-chee-oh dee MAH-noh). This symphony's finale opens with the four-note theme "C D F E" and closes with a five-voice fugato (fyoo-GAH-toh). This symphony, nicknamed by Johann (YO-hahn) Peter Salomon, is the final symphony by the composer of the "Haffner" symphony and *Eine Kleine Nachtmusik* (AI-nuh CLAI-nuh NOKT-myoo-sik). For 10 points, identify this symphony by Wolfgang Amadeus Mozart, named for a Roman god. ANSWER: *Jupiter Symphony* [Mozart's symphony 41 or Mozart's 41st symphony or equivalent phrasings containing each word; or 41st after "Mozart" is read]



## VHSL Scholastic Bowl Regional Tournament 2014 Round 3 Tiebreaker/replacement questions

- 1. This writer included the stories "Down by the Riverside" and "Big Boy Leaves Home" in his collection *Uncle Tom's Children*. He wrote about his move to Chicago and affiliation with the Communists in his autobiography *Black Boy*. In another novel, he created a young man who works as a chauffeur for the Dalton family and accidentally murders their daughter Mary. For 10 points, name this African-American author who wrote about Bigger Thomas in *Native Son*. ANSWER: Richard **Wright**
- 2. This artist used one of his early paintings to derive the pose in his portrait of Thomas Carlyle, and he showed a woman holding a lily in front of a monochrome curtain in a painting modeled by his mistress Joanna Hiffernan. His depiction of fireworks above Cremorne Gardens was likened by John Ruskin to "flinging a pot of paint in the public's face." This artist of *Symphony in White, No. 1* painted an elderly woman seated in profile. For 10 points, name this artist whose *Arrangement in Grey and Black, No. 1* is a painting of his mother.

ANSWER: James Whistler [James Abbott McNeill Whistler]

- 3. Using principal planes to analyze these things allows for the application of Gullstrand's equation. Like a similar device, their power can be measured in dioptres (DYE-op-terz), but these devices can be useful with the same amount and type of curvature on both of their sides. For a thin one of these things, one over the object distance plus one over the image distance is equal to one over the focal length. Real images are formed by convex examples of these devices. For 10 points, name these transparent devices often used to focus light, as in eyeglasses. ANSWER: **lens**es
- 4. This man's disagreements with Gerd von Rundstedt (ROONSH-tet) helped weaken the Axis defensive position during the Normandy invasions. This man's forces successfully repelled Operation Battleaxe, before the success of Operation Crusader forced this man to lift the Siege of Tobruk (tuh-BROOK). This man led the Seventh Panzer (POHN-zer) Corps during the Nazi invasion of France. For 10 points, name this German field marshal, who lost to Bernard Montgomery at El Alamein (AH-luh-meen) and was nicknamed "the Desert Fox." ANSWER: Erwin **Rommel** [Erwin Johannes Eugen **Rommel**]
- 5. The largest lake in this country, Lake Manchar (MAHN-char), has recently become contaminated with saline waters, causing the death of much of its wildlife. This country's western border was laid out by Sir Mortimer Durand. This country holds the western part of the Thar (TAR) Desert. The Indus River flows through this country and into the Arabian Sea near its city of Karachi (kuh-RAH-chee). For 10 points, name this South Asian country, formed in 1947 after a partition with its eastern neighbor India.

ANSWER: **Pakistan** [Islamic Republic of **Pakistan**]

During the Eisenhower presidency, both his anti-Communist Secretary of State and the head of the CIA were members of what family?

ANSWER: **Dulles** 

This is a calculation question. If secant x plus tangent x equals 3, what does secant x minus tangent x equal?

ANSWER: 1/3