VHSL Format Set<br>Sample Round

First Period, Fifteen Tossups

1.The feat usually attributed to this man was actually completed by Juan Sebastian Elcano aboard the Victoria. This man's travels were related by Antonio Pigafetta, and he quelled an Easter mutiny against him in Argentina before being killed a year later in a skirmish in the Philippines. For 10 points, name this Portuguese navigator whose crew completed the first circumnavigation of the Earth.
ANSWER: Ferdinand Magellan
2.Lord George Gordon is fictionalized in this man's Barnaby Rudge. Miss Havisham is saved from burning by Pip, but eventually dies in a novel by this man. Another of his works opens with the line, "It was the best of times, it was the worst of times." For 10 points, name this author of Great Expectations and $A$ Tale of Two Cities.
ANSWER: Charles Dickens
3.This woman was the sister of Stheno and Euryale, who were afflicted by the same curse. That curse occurred because while serving as a priestess in Athena's temple, this woman had an affair with Poseidon. This woman's death came after the son of Zeus and Danaë appeared with a reflective shield. For ten points, name this Gorgon with snakes for hair who turned men into stone until Perseus killed her.
ANSWER: Medusa
4.One author from this country wrote about Julian Sorel in The Red and The Black. In addition to Stendhal, another author from this country wrote about the title lover of Leon Dupuis and wife of Charles in Madame Bovary. In a novel set in this country, Javert does not turn in Jean Valjean. For ten points, name this country where Les Miserables is set, the home of Gustave Flaubert and Victor Hugo, who lived in Paris.
ANSWER: France
5.This artist painted a curved brown path in his Wheatfield With Crows, and he included two chairs in a painting of a blue-walled room. This painter of the Bedroom in Arles also put a blue spire in the middle ground of a work with undulating cypresses and blue hills. For ten points, name this painter noted for his sunflowers and the Starry Night, who is most famous for cutting off his ear in a fight with Gaugin. ANSWER: Vincent Van Gogh
6.The philologist Elwin Ransom is the protagonist of this author's Space Trilogy, and he also wrote a work of Christian apologetics entitled The Screwtape Letters. However he may be best known for a series in which the Pevensie siblings visit the title location and meet Aslan. For 10 points, name this author of The Chronicles of Narnia, which includes The Lion, the Witch, and the Wardrobe.
ANSWER: Clive Staples Lewis
7.This man's presidency saw Brigade 2056 disastrously storm a beach, as well as Sargent Shriver's creation of a civilian foreign service program. In addition to the Bay of Pigs and the creation of the Peace Corps, this man laid the seeds for the Vietnam War by sending US advisors there. For ten points, name this president who was succeeded by Lyndon Johnson after being assassinated in 1963.
ANSWER: John F. Kennedy
8.This man wrote "so long live this and it gives life to thee" in his sonnet 18, while Ariel is freed by Prospero in his The Tempest. This man also described Gloucester's blinding in a play about the father of Cordelia and another work in which a sword-thrust through a curtain kills Polonius. For ten point name this author of King Lear and a work in which the title Dane says "To be or not to be," Hamlet. ANSWER: William Shakespeare
9.This state is home to Lake Mono and Lake Tahoe. The tallest mountain in the lower 48 states appears in this state home to Yosemite Valley and Sequoia National Park, while the San Andreas fault runs under this state. For ten points, name this US state home to both the Mojave Desert and Death Valley, along with its capital of Sacramento.
ANSWER: California
10.This composer's Hammerklavier is known for its difficulty, while his piano sonatas include the Appassionata and Pathétique. His sixth symphony is known as the "Pastoral," while his third is the "Eroica." For ten points, name this German composer of the Moonlight Sonata, whose ninth symphony contains lyrics from the Ode to Joy.
ANSWER: Ludwig van Beethoven
11.One song by this group has a speaker who ends up sleeping in a bathtub. In addition to Norwegian Wood, this group wrote a song proclaiming "You can talk to me," Hey Bulldog. Their first big hit was Love Me Do, and other albums by this band include Rubber Soul, Revolver, and Yellow Submarine. For ten points, name this British group behind Sgt. Pepper's Lonely Hearts Club Band.
ANSWER: The Beatles
12.One man with this profession was Walter Gropius, who founded the Bauhaus movement. Another man in this field was Ludwig Mies van der Rohe, and Christopher Wren worked in London for many years in this profession. Fallingwater was created by Frank Lloyd Wright, a famous one of these. For ten points, name this profession, where one designs buildings.
ANSWER: Architecture [or Architect; accept equivalents like "designing buildings" before the end]
13.One concept associated with this religion is anatman, or "selflessness". Followers of this belief system strive to follow the Eightfold Path in order to relieve suffering; this endeavor is considered the last of the Four Noble Truths. Nirvana is the ultimate goal of its adherents. For 10 points, name this religion based on the teachings of Siddhartha Gautama.
ANSWER: Buddhism
14.Robert Nozick wrote about "Anarchy, State, and" this type of location. Ones called Phalansteries were described by Charles Fourier, while Plato's Republic is about one of these. The most famous example of one of these places was described by Thomas More in a namesake work. For ten points, name this type of place which names a genre of literature about idealized societies.
ANSWER: Utopias
15.In August 2010, a mass grave containing at least 72 bodies was found near a ranch with this nation. The Zeta crime syndicate operates in this nation, which is also the home of the Sinaloa drug cartel.
President Felipe Calderon has tried to curb drug violence in this nation, especially in Ciudad Juarez and Nuevo Laredo. For 10 points, name this nation, the southern neighbor of the U.S.
ANSWER: Mexico

## Directed Round

1A. What economic downturn began with the stock market crash of 1929 and may have been worsened by the actions of President Herbert Hoover?
ANSWER: Great Depression
1B. What novel set in Maycomb, Alabama describes the trial of Tom Robinson, who is defended by Atticus Finch, the father of Scout and Jem? It was written by Harper Lee.
Answer: To Kill a Mockingbird
2 A . This is a ten second computational math question. Find the roots of the polynomial $\mathrm{x}^{2}-7 \mathrm{x}+12$.
ANSWER: $(\mathbf{4}, 0)$ and $(\underline{\mathbf{3}}, 0)$
2B. This is a ten second computational math question. What is the mode of the set of numbers $5,9,9$, 10, 14 ?
ANSWER: $\underline{9}$
3A. What nation was home to the authors of The Sheep Well and Blood Wedding, the home of playwrights Lope de Vega and Fernando Garcia Lorca?
Answer: Spain
3B. What government body opposed the New Deal, causing Roosevelt to try to "pack" it full of members supporting his efforts?
ANSWER: Supreme Court [prompt on "Judicial Branch" or "Courts"]
4A. What region of the Earth predominantly solid and accounts for most of the Earth's volume? It lies between the crust and the outer core.
Answer: mantle
4B. What principle named for a Swiss mathematician states that as the speed of a fluid increases, its pressure or potential energy decreases?
Answer: Bernoulli's Principle
5A. Frederic Chopin's Minute Waltz was written for what instrument with a keyboard with white and black keys, which, when pressed, cause a hammer to strike strings?
Answer: piano
5B. What compound is divided into HDLs, which are often referred to as the "good" type of these molecules, and LDLs, known as the "bad" type because they signal heart problems?
Answer: cholesterol
6A.What first chancellor of a unified Germany instituted the Kulturkampf campaign against the Roman Catholic Church?
ANSWER: Otto von Bismarck
6B. What process allows a government official to be accused of misconduct in office or breaking the law? It has only happened to two U.S. presidents, Andrew Johnson and Bill Clinton.
Answer: impeachment

7A. This is a twenty second computational math question. Josh's first four math test scores are 65, 55, 70 , and 42 . What must he make on his fifth test in order to pass his class with a score of exactly $60 \%$ ? ANSWER: $\underline{68}$

7B. This is a twenty second computational math question. What is the center of an ellipse with one endpoint at $(3,1)$ and another at $(-1,4)$ ?
ANSWER: $(-1,1)$
8B. What author of a book about a boy who goes to Battle School to learn to fight the Buggers titled Ender's Game also wrote about the planet Harmony in the Homecoming Saga?
Answer: Orson Scott Card
8A. What English novel about the love affair between Elizabeth Bennet and Fitzwilliam Darcy was written by Jane Austen?

## Answer: Pride and Prejudice

9A. This is a thirty second computational math question. What is the diagonal of a rectangle given that one of its sides is six units longer than the other and its perimeter is 24 units long?
ANSWER: $\underline{\sqrt{ } 90}$ units [or $\underline{\mathbf{3} \sqrt{ } 10}$ units]
9B. This is a thirty second computational math question. What is the volume of a trapezoidal prism if the trapezoidal part has base lengths 5 and 9 units and a height of 4 units and the prism has a depth of 3 units?
ANSWER: $\underline{84}$ units cubed
10A. What movie has as its protagonist a 700 year-old trash compactor robot that collects knick-knacks and falls in love with the robot EVE?
ANSWER: WALL-E
10B. What Renaissance artist painted the Sistine Chapel's ceiling and sculpted David?
ANSWER: Michelangelo di Lodovico Buonarroti Simoni

## Extra Directed Round Questions

11A. What war saw an invasion of Canada by the United States and the penning of the Star Spangled Banner?
ANSWER: War of $\mathbf{1 8 1 2}$
11B. What Italian discovered the four largest moons of Jupiter with a telescope and was placed under house arrest by the Church for claiming that the earth revolves around the sun?
ANSWER: Galileo Galilei (accept either)

## Second Period, Fifteen Tossups

16.This is the only elemental solid that exhibits antiferromagnetism at room temperature. In the +6 oxidation state, it can form ions with four or seven oxygen atoms, depending on the pH . Atoms of this element are used to prevent rust in steel. For ten points, name this element with atomic number twentyfour and chemical symbol Cr .
ANSWER: chromium [accept $\mathbf{C r}$ before mentioned]
17.This country has been criticized for allowing the import of only one car per fifty two exported in a free trade agreement with the US. In March 2010, the Cheonan, a warship belonging to this nation, was torpedoed, while in November, its island of Yeonpyeong was shelled. For 10 points, name this nation led by Lee Myung-Bak separated by the Demilitarized Zone from its Communist northern neighbor, with capital at Seoul.

18.Eutrophication can result in the namesake blooms of these organisms. Lichens are a symbiosis of a fungus and a cyanobacterium or one of these organisms, while seaweed is a multicellular form of this type of protist. For ten points, name these photosynthetic organisms that come in red, brown, but most commonly green varieties, which usually live in water.
ANSWER: algae
19.One branch of this religion is divided into Ismaili and Twelvers, and mystics in this religion are known a sufis. One duty in this religion is the donation of zakat, while another is the Shadha. The most famous duty of this religion involves circling the Kaaba seven times; that duty is the hajj. For ten points, name this religion which regards Muhammad as god's final prophet.
ANSWER: Islam
20.Structures in this organ include the glomerulus, Bowman's capsule, and the Loop of Henle. Calcium oxalate crystals can form objects in this organ made up of nephrons; those objects are this organ's namesake stones, which are rather painful. For ten points, name this organ which filters wastes from blood to create urine.
ANSWER: kidney
21.Exceptions to this right include the Miller test and the outcome of Schenck v. U.S., which established the "clear and present danger" rule. The case Tinker v. Des Moines dealt with the symbolic variety of this freedom in a school setting. For 10 points, name this freedom guaranteed by the first amendment that allows individuals to express their ideas without censorship.
ANSWER: freedom of speech[prompt on first amendmentbefore mentioned]
22.Raymond Davis won a Nobel prize for detecting neutrinos in this celestial body, the associated regions of which include the chromosphere. The frequency of patches found on this body tends to follow eleven-year cycle; these are its namesake spots. Proxima Centauri is the closest other star to this one. For 10 points, name this star located about 93 million miles from the Earth.
ANSWER: the Sun
23.This leader began the swadeshi program of protesting foreign goods, which included an emphasis on homespun cloth. This leader who was succeeded by Nehru led the salt march against a tax on that substance, and was assassinated because he insisted on paying 550 million rupees to Pakistan. For ten points, name this supporter of satyagraha, or nonviolent resistance, who led the liberation of India. ANSWER: Mohandas Ketchurian Gandhi [or Mahatma Gandhi or Bapu]
24.Ceva's Theorem provides a test for whether cevians in this shape are concurrent. An Euler line is formed by the centroid, orthocenter, and circumcenter of this shape. The law of sines equates the ratios of this shape's side lengths to the sines of the opposite angles. Its area can be calculated using Heron's formula and its solid of revolution is a cone. For ten points, name this three sided polygon.
ANSWER: triangle
25.William Berkeley's unpopular rule in this colony led to Bacon's Rebellion. This present-day state was the site of Nat Turner's slave revolt, and its northwestern counties seceded from it during the Civil War. Home of the House of Burgesses, Williamsburg succeeded Jamestown as its capital. For 10 points, name this state whose current capital is Richmond.
ANSWER: Virginia
26.The first major dissenter from this man's views was Alfred Adler. This man created the idea of the Electra and Oedpius complexes. One of this man's most famous works asserts that the title entities are all means of wish-fulfillment; that work is The Interpretation of Dreams. For ten points, name this Austrian psychologist who founded psychoanalysis.
ANSWER: Sigmund Freud
27.This is the only one of the four fundamental interactions without a known force carrier particle. Einstein described it as a curvature in spacetime, while this interaction's universal law describes its force as proportional to the masses of the two objects and inversely proportional to the square of the distance between them. For ten points, name this fundamental interaction explained by Isaac Newton which attracts masses to one other.
ANSWER: gravity[or gravitation]
28.This man's troops defeated Russia at the battles of Friedland and Borodino. After returning from Elba, this Corsica-born military leader was exiled to St. Helena after losing to the combined forces of Blucher and the Duke of Wellington at Waterloo. For 10 points, name this early 19th century French military leader who actually wasn't particularly short for his time.
ANSWER: NapoleonBonaparte
29.This author invented the detective story in his work The Murders in the Rue Morgue, while another of his stories deals with the murder of an old man with a "vulture eye." This author wrote a poem about how the title creature "came a tapping, As of someone gently rapping, rapping at my chamber door." For ten points, name this Baltimore author of "The Telltale Heart" "The Raven"
ANSWER: Edgar Allan Poe
30.One short story by this author sees its title character's wife Faith take part in a ritual in the woods. In addition to Young Goodman Brown, this author wrote a book the Pynchons own the title residence. In another book by this author, Roger Chillingworth is the former husband of Hester Prynne. For ten points, name this man who wrote The House of the Seven Gables and The Scarlet Letter.
ANSWER: Nathaniel Hawthorne

## Replacement Tossups

## Tiebreaker One

The War Powers Resolution restricts the power of this office and the minimum age to hold it is 35 . This office notably does not have a line-item veto and only one person has ever resigned it. the holder of this office uses the Oval Office and he notably cannot make laws. For ten points, name this head of the executive branch of the government.
Answer: President of the United States

## Tiebreaker Two

This novel sees the servant Fedallah foresees his and another man's death and an encounter with the ship Rachel, which is ignored. Starbuck attempts to talk one character out of his quest over the course of this book which sees Queequeg fall. For ten points, name this novel narrated by Ishmael about Captain Ahab's pursuit of a white whale, written by Herman Melville.
ANSWER: Moby Dick

## Tiebreaker Three

This process consists of the light and dark reactions. This process occurs in the thylakoids and stroma of chloroplasts, which make up the Chlorophyll which capture the light energy that drives this process. For ten points, name this process used by plants to convert carbon dioxide into sugars and oxygen.

## ANSWER: photosynthesis

## Tiebreaker Four

The fact that this property holds for real numbers explains why the product of two negative numbers is a positive number. One use of this property is the multiplication of a monomial of a binomial, and one statement of this property is that $a(b+c)=a b+a c$ [A times the quantity $B$ plus $C$ equals $A B$ plus $A C$ ]. For 10 points, name this property of real numbers illustrated by the fact that $2(x+3)=2 x+6$. ANSWER: distributive property [or distribution]

## Tiebreaker Five

This god's most famous possession requires special gloves for its use, and he had to wear a dress to get it back from Thrymir. Hymir cut this god's fishing line after he caught the Midgard Serpent. This god will be walk nine paces and die of the Midgard Serpent's venom after killing it at Ragnarok. For ten points, name this wielder of Mjolnir, the Norse thunder god and namesake of Thursday.
ANSWER: Thor

