1. **The Mvita dialect of Swahili uniquely possesses this feature, though many other Bantu languages, like Zulu, possess it. This feature is altered contextually in a phenomenon called "sandhi." Depressor consonants lower this feature in those languages, which possess its** (*) "register" type. Because of the role of this feature, volume is the only way to express inflection in Mandarin. For 10 points, name this feature, which can be "rising," "falling," "dipping," or "level" in Mandarin.
ANSWER: **tone** [accept **register tone** before it is read]

022-09-11-08102

2. **This politician gained the support of the mayor of New Orleans by promising to build a bridge over the Mississippi and an airport. He used the slogan "every man a king" to promote a program limiting personal net worth called** (*) Share Our Wealth, and he was assassinated in 1935 before he could complete his split from Franklin Roosevelt by pursuing the Democratic presidential candidacy. For 10 points, name this Louisiana politician nicknamed "the Kingfish" and fictionalized as Willie Stark in Robert Penn Warren's novel *All the King's Men*.
ANSWER: Huey **Long**

032-09-11-08103

3. **One form of this effect sees an evanescent wave transfer to a separate medium, followed by a flow of energy across the boundary. That form, similar to quantum tunneling, is known as the "frustrated" form of this phenomenon. It occurs when light exceeds the angle given as "theta equals the inverse sine of the ratio of the smaller index of refraction to the larger index of refraction." For 10 points, name this phenomenon that occurs when the angle of incidence for light** (*) exceeds the critical angle, a type of reflection used in fiber optics.
ANSWER: **total internal reflection** [prompt on partial answer; award 15 points for a post-FTP buzz within power mark]

064-09-11-08104

4. **One work by this painter includes three figures in the left background making their way up stairs as one holds up his hand. Another painting by this man shows a man holding a paper in his left hand while drooping to the right with a** (*) quill pen in his right hand. This painter depicted a man being given a goblet of hemlock and a death in a bathtub without Charlotte Corday shown. For 10 points, name this neoclassical French painter of *The Death of Socrates* and *The Death of Marat*, who painted through the French Revolution and for Napoleon.
ANSWER: Jacques-Louis **David**

023-09-11-08105

5. **After drinking the blood of one of these creatures, Sigurd gains the ability to understand the language of birds in the *Volsung Saga*. One of these animals was named Ladon and protected the golden apples of the Hesperides. This creature was called "lung" in China, and a Babylonian one killed by** (*) Marduk was named Tiamat. Fafnir turned himself into one of these animals before being killed for his hoarded gold. For 10 points, name this mythological animal that was often represented as a flying, fire breathing lizard.
ANSWER: **dragon**s

027-09-11-08106

6. **This novelist portrayed the archer Sam Aylward, who befriends Alleyne Edricson before they join the title mercenary company led by Sir Nigel Loring, in *The White Company*. This author described John Openshaw's persecution by the (*)** Ku Klux Klan in one work and depicts James Mortimer and Sir Henry's fear of an ancient family curse in the form of a giant black dog in another. For 10 points, name this author of "The Five Orange Pips" and the *Hound of the Baskervilles* who created John H. Watson to narrate the tales of Sherlock Holmes.
ANSWER: Sir Arthur Conan **Doyle**

7. **One character in this film owns over eighty fast food restaurants and is played by Tim McGraw. Its central character writes a paper titled "White Walls" and decides to write an essay about "The Charge of the Light Brigade" in his quest to get a 2.5 GPA at Wingate Christian School. The protagonist of this film saves (*)** S.J. from a deploying airbag after crashing into a truck. This movie ends with actual footage of the 2009 NFL draft. For 10 points, name this movie starring Sandra Bullock as Leigh Anne Tuohy and Quinton Aaron as left tackle Michael Oher.
ANSWER: *The **Blind Side***

8. **One work by this author includes a Colonel married to a Mummy. The title character of one work by this author left her fiance when he refused to jump over a riding crop. The character who relates that incident cooks a concoction to induce an abortion in a dog. The title character's servant cuts off the head of her pet bird shortly after they agree to start running a (*)** hotel together; that play ends as its title character walks through a door with a razor, planning suicide. For 10 points, name this author of *The Ghost Sonata* and *Miss Julie*.
ANSWER: Johan August **Strindberg**

9. **Tests for identifying these include the Miller-Rabin test and the AKS test, and they can also be found using the sieve of Eratosthenes (air-a-TOSS-the-nees). The Riemann (REE-mawn) hypothesis has implications regarding their distribution. According to (*)** Goldbach's conjecture, any even number greater than two is the sum of two of them. Euclid famously proved that there are an infinite number of them. For 10 points, name these numbers which are divisible only by one and themselves.
ANSWER: **prime** numbers

10. **This leader had to receive a special commission to lead cavalry due to a conflict with the Self-Denying Ordinance. That commission allowed this man to fight during the Battle of Naseby with an army led by Thomas Fairfax. Pride's Purge, which created the (*)** Rump Parliament, was undertaken by his allies in the New Model Army. This man ruled for much of the Interregnum, which started after the execution of Charles I. For 10 points, name this Roundhead who ruled during the Protectorate as the Lord Protector of England.
ANSWER: **O**liver **Cromwell** [prompt on **Cromwell**]

11. **Thomas Graham launched the study of these and did a study of ones involving silicic acid. Components are surrounded by a electric double layer, and their stability is partially indicated by the zeta potential. The hydro types of them are used to dress wounds. They are classified based on their continuous and dispersed (*)** phases. These can appear bluish under certain lighting conditions because of the Tyndall effect. They include foams, aerosols, and emulsions. For 10 points, name these mixtures in between solutions and suspensions, an example of which is milk.
ANSWER: **colloid** [or **colloidal dispersion**]

12. **He maintained a system of *missi dominici* to keep subordinate rulers from getting too powerful. His primary contemporary biographer listed him as seven feet tall, but his remains reveal that he was only six feet, three inches tall. After conquering the Avars, he started a *Drang nach Osten* to expand Christianity to the east, and also defeated (*)** Basques near Roncesvalles, an incident described in the *Song of Roland*. For 10 points, name this Frankish king, son of Pepin the Short, who, in 800 CE, was crowned the first Holy Roman Emperor.
ANSWER: **Charlemagne** [or **Carolus Magnus**; or **Carolus Augustus**; or **Karl der Grosse**]

13. **Two characters in this work discuss whether or not a letter was written by an acquaintance named Bill Tenner. In it, the stable buck Crooks rails against books and is complimented on his horseshoe skills by Slim. Carlson finds his Luger missing after earlier suggesting using it to kill (*)** Candy's sickly old dog. One of the central characters of this novella dreams of a rabbit farm and accidentally kills Curley's wife. For 10 points, name this work which takes its name from a Robert Burns poem, a John Steinbeck novella about George and Lenny.
ANSWER: *Of Mice and Men*

14. **The third of this man's four orchestral suites contains the "Air on the G string." Christian Petzold composed a minuet in G misattributed to this man as part of the "Notebook for Anna Magdalena." He composed one prelude and fugue in each key for both books of his (*)** *Well-Tempered Clavier*. He composed a concerto for three violins, violas, and cellos, accompanied by a basso continuo which was one of six dedicated to a margrave. For 10 points, name this Baroque composer of the *Brandenburg Concertos* and a *Toccata and Fugue in D minor* for organ.
ANSWER: Johann Sebastian **Bach**

15. **In one novel by this author, Vera Gangart cares for the protagonist, who describes his "Perpetual Exile" in Uzbekistan. This author created Oleg Kostoglotov and wrote a novel in which a decree stated that any temperature lower than -41°C meant that the title character could (*)** relax. That character worked for Caesar, laughed at the jokes of Latvian Johann Kilgas, and served ten years after being convicted of being a spy. For 10 points, name this Soviet author whose *One Day in the Life of Ivan Denisovich* and *Gulag Archipelago* described gulag life.
ANSWER: Aleksandr Isayevich **Solzhenitsyn**

16. **After launching a second invasion against this empire, Ahmad Al-Mansur displayed a skull he claimed was from this empire's leader. During the previous invasion, this empire lost to forces under Judar Pasha at the Battle of Tondibi; messengers sent before the battle to call for reinforcements were allegedly murdered by Tuaregs. This empire was founded by (*)** Sunni Ali, and though it is not Mali, it established a university at Timbuktu under Askia Muhammad. This empire had its capital at Gao. For 10 points, name this West African empire that succeeded the Mali.
ANSWER: **Songhai** Empire [prompt on Kingdom of **Gao**]

17. **One character of this type sings of the freedom of the birds in "Stridono lassù," (stree-DOH-noh lah-SOO) and another explains the need to portray one of these people during a time of sorrow in "Vesti la giubba" (VEH-stee lah JOO-buh). One of them, (*)** Beppe, attempts to help Tonio protect a female one named Nedda, who is cheating with Silvio, but neither can prevent Canio from stabbing the lovers. For 10 points, identify the performing arts profession of those characters, in Ruggiero Leoncavallo's opera *Pagliacci* (pahg-lee-AH-chee).
ANSWER: **clown**s [or **harlequin**s; or **jester**s; or other obvious equivalents]

18. **Although the central rite of this event is known as "the Standing," standing is not required. At its end, an animal is slaughtered and eaten and women cut a single lock of hair. At its start, men don a robe of white cotton. A ritual of this event known as "the Running" was changed in 1990 after over 1400 people (*)** died in a stampede and represents Hagar's journey to the Well of Zamzam. Participants in this event also throw seven stones at a pillar in the "stoning of the devil" and circle the Ka'aba seven times. For 10 points, name this pilgrimage to Mecca.
ANSWER: **haj**j [prompt on **pilgrimage** to **Mecca**]

19. **This country's Tsingy de Bemaraha Strict Nature Reserve is one of the best examples of Karst topography in the world. The island of Nosy Mangabe can be found in this country's Antongil Bay. Ethnic groups native to this country include the Sakalava and Merina, who dominated much of it until the arrival of the French. Islands off its coast include Juan de Nova and the Gloriosos, and it is the natural home of (*)** lemurs. For 10 points, name this island country which contains the fourth largest island in the world and is found to the east of Mozambique.
ANSWER: **Madagascar**

20. **This can be measured on the Allen scale. One method of calculating this quantity defines it as the average of ionization energy and electron affinity. On the periodic table, it increases as one goes up and to the (*)** right, so that cesium has the lowest value for this quantity and fluorine the highest. For 10 points, name this quantity which can also be described by the Mulliken and Pauling scales and describes an atom's ability to attract electrons.
ANSWER: **electronegativity**

21. **Malfunction of this organ in utero can result in cretinism if it goes untreated after birth. Underactivity of this organ in utero can result in Hashimoto's disease, and** (*) Graves's disease results from hyperactivity of it. This organ stimulates resorption of calcium by producing calcitonin. This organ's namesake peroxidase helps the body use tyrosine to produce its T4 and T3 hormones. Iodine deficiency causes this organ to increase in size. For 10 points, name this endocrine gland which, when enlarged, becomes a goiter.
ANSWER: __thyroid__ gland

1. The plus or minus in this classification scheme denotes the presence or absence of the Rh antigen. For 10 points each:

[10] Name this classification scheme that classifies people as A, B, AB, or O and was developed by Karl Landsteiner.

ANSWER: ABO **blood group** system [or **blood type**s]

[10] The IA (I-A) and IB (I-B) alleles are both expressed in type AB blood, while only two little-i alleles can produce O-type blood. This is an example of what situation in which two alleles are each expressed?

ANSWER: **codominance**

[10] In contrast to codominance, in this situation, heterozygotes exhibit a phenotype that is intermediate between the two parent phenotypes. An example is red snapdragons and white snapdragons mating to produce pink snapdragons.

ANSWER: **incomplete dominance**

003-09-11-08201

2. This man wrote *Social Statics* and he outlined his beliefs synthesizing philosophy, sociology, and biology in his work *The Synthetic Philosophy*. For 10 points each:

[10] Name this man who coined the phrase "survival of the fittest."

ANSWER: Herbert **Spencer**

[10] Herbert Spencer inspired the "social" form of a belief system named for this man. It applied the concept of natural selection to social interaction to explain who has power.

ANSWER: Charles Robert **Darwin**

[10] This early attempt at understanding social behavior was based on the beliefs of Franz-Joseph Gall and involved analyzing the structure of the skull to determine a person's behavior.

ANSWER: **phrenology**

027-09-11-08202

3. This painter depicted many scenes of waterlilies at his garden in Giverny. For 10 points each:

[10] Name this French artist who also depicted *Haystacks* in a series of paintings.

ANSWER: Claude Oscar **Monet** [or Oscar Claude **Monet**]

[10] Monet championed this artistic movement, which was named after a Monet painting of a sunrise at the harbor of Le Havre (HOV).

ANSWER: **Impression**ism [accept word forms; accept *Impression: Sunrise*]

[10] Monet depicted this English locale at different times of day and in different weather from his window at St. Thomas' Hospital.

ANSWER: the British Houses of **Parliament** [accept any reasonable answers including **Parliament**; accept Palace of **Westminster**]

026-09-11-08203

4. This legislation set the average *ad valorum* rate at 48.4%. For 10 points each:
[10] Name this piece of legislation passed in 1890, sponsored by a future president of the U.S.
ANSWER: the **McKinley Tariff** of 1890
[10] In a textbook example of logrolling, the McKinley tariff was passed in exchange for Republican support of this 1890 Silver Purchase Act, whose namesake also sponsored an Antitrust Act.
ANSWER: **Sherman** Silver Purchase Act [or John **Sherman**]
[10] Both the McKinley Tariff and Sherman Silver Purchase Act were passed during the "Billion Dollar Congress" that served contemporaneously with this president, who served between the terms of Grover Cleveland.
ANSWER: Benjamin **Harrison**

5. The recurrance of the oboe in this work signifies that the duck has been eaten alive rather than killed. For 10 points each:
[10] Name this work, whose title character is represented by the strings. He lives with his grandfather, who is represented by the bassoon.
ANSWER: *Peter and the Wolf*
[10] This Russian composer of *Peter and the Wolf* also wrote the *Lieutenant Kije Suite* and composed the *Classical Symphony*.
ANSWER: Sergei **Prokofiev**
[10] Prokofiev composed a ballet after this play. His rendition includes the *Dance of the Masks* and a musical battle between the Montagues and Capulets.
ANSWER: *Romeo and Juliet*

6. This figure had the whitest skin of the gods, and he needed less sleep than birds and could hear wool growing on sheep. For 10 points each:
[10] Name this watchman of Norse mythology.
ANSWER: **Heimdall**
[10] Heimdall guarded this rainbow bridge that links the human world to the captal city of the gods.
ANSWER: **Bifrost**
[10] That capital city of the gods is surrounded by an incomplete wall and goes by this name in Norse myth.
ANSWER: **Asgard**

7. This poem notes that "every fair from fair sometime declines" but assures its addressee that Death will not "brag thou wanderest in his shade." For 10 points each:
[10] Identify this poem, often known by its opening line, whose speaker talks up the loveliness and temperateness of its addressee and describes how "rough winds do shake the darling buds of May."
ANSWER: "**Shall I compare thee to a Summer's day?**" [or Shakespeare's **Sonnet** #**18**; do not mention "Shakespeare" if this part is answered incorrectly]
[10] "Shall I compare thee to a Summer's day" is one of the 154 sonnets produced by this English poet, who also wrote plays like *Coriolanus* and *Macbeth*.
ANSWER: William **Shakespeare**
[10] An incident in Ovid's *Metamorphoses* inspired this long Shakespeare poem, whose second title character is gored to death by a boar despite the warnings of the first title character, a goddess of love.
ANSWER: "**Venus and Adonis**"

8. Despite promising to support William the Conquerer, he took over the throne of England after the death of Edward the Confessor. For 10 points each:

[10] Name this last Anglo-Saxon king of England, who was defeated and killed by William.

ANSWER: **Harold II** Godwinson of Wessex [or **Harold Godwinson**)] [or **Harold of Wessex**]

[10] This 1066 battle, depicted on the Bayeux Tapestry, was the site of Harold's death and confirmed the Norman conquest of England.

ANSWER: **Hastings**

[10] Before losing at Hastings, Harold II stamped on his brother Tostig and Harald Hardrada at this battle, where a single Viking held off hundreds of Saxons until being taken out from underneath the namesake feature.

ANSWER: Battle of **Stamford Bridge**

062-09-11-08208

9. The strength of this property is lessened by the addition of surfactants. For 10 points each:

[10] Name this cohesive force that causes molecules not entirely surrounded to have a stronger attraction, which allows for the actions of the aptly named water striders.

ANSWER: **surface tension**

[10] Surfactants form into these clusters at sufficient levels, and at a critical concentration named for these aggregations the surface tension will no longer lower.

ANSWER: **micelle**s

[10] This phenomenon occurs with liquids in a tube due to adhesion and surface tension, and it is responsible for the formation of a meniscus.

ANSWER: **capillary action**

023-09-11-08209

10. For 10 points each, answer the following about award winners from the 2009 NFL season.

[10] This quarterback broke a tie with Johnny Unitas and Brett Favre when he won his fourth MVP honor. He led the Indianapolis Colts over the Jets in the AFC Championship game.

ANSWER: **P**eyton **Manning** [prompt on **Manning**]

[10] The Offensive Player of the Year award went to this Tennessee Titans halfback, whose 2,000 yard season also helped him become the only unanimous selection to the All-Pro team.

ANSWER: Chris **Johnson**

[10] For his efforts guiding the Cincinnati Bengals to a playoff berth and AFC North division crown, this former Ravens defensive coordinator was awarded Coach of the Year accolades.

ANSWER: Marvin **Lewis**

063-09-11-08210

11. This man dictated his memories of traveling throughout Asia to Rustichello, with that work eventually being published as *Il Milione*. For 10 points each:

[10] Name this Italian explorer who traveled with his family to the court of the Chinese emperor Kublai Khan.

ANSWER: Marco **Polo**

[10] Marco Polo was taken prisoner by this city's forces as part of their wars with Venice. This city was home to Christopher Columbus.

ANSWER: **Genoa**

[10] Kublai Khan's Yuan dynasty was one branch of the empire of these people. They reached their prominence under their ruler Genghis Khan.

ANSWER: **Mongol**s

027-09-11-08211

12. For 10 points each, name these rivers of the Greek underworld.
[10] Gods swore unbreakable oaths on this river.
ANSWER: **Styx**
[10] Charon the ferryman is sometimes said to have done his thing on the River Styx, but more commonly Charon was required to cross this river, the river of woe.
ANSWER: **Acheron**
[10] This river of fire separated Tartarus from the rest of the underworld.
ANSWER: **Phlegethon**

13. This company was weakened by the Charter Acts of 1813 and 1833. For 10 points each:
[10] Name this joint-stock company which had Dutch and French counterparts and ruled for over one hundred years after winning the battle of Plassey.
ANSWER: British **East India Company**
[10] The British East India Company was crippled by this 1857 rebellion which was named for its participant soldiers and which was partially sparked by the use of cow and pig fat on ammunition casings.
ANSWER: **Sepoy** Rebellion
[10] The Battle of Plassey was won by the British East India company under the direction of this man, who teamed with Warren Hastings to expand the power of the Raj.
ANSWER: Robert **Clive**

14. John Hale is brought into this play after Samuel Parris finds his daughter and other girls out in the woods with Tituba. For 10 points each:
[10] Name this Arthur Miller play set during the Salem witch hunt, in which an accusation against Elizabeth inadvertently causes the hanging of John Proctor.
ANSWER: *The **Crucible***
[10] This is the character who makes the accusation of witchcraft against Elizabeth, allegedly in a scheme to marry John Proctor, with whom this character had already committed adultery.
ANSWER: **Abigail** Williams [or Abigail **Williams**]
[10] This character accuses Thomas Putnam of using the scare to try and gain land, and he is pressed to death while crying out for more weight.
ANSWER: **Giles** Corey [or Giles **Corey**]

15. Answer some questions about a common element, for 10 points each.
[10] This diprotic acid is used in car batteries and is synthesized in the contact process. It's the principal acid in acid rain.
ANSWER: **sulfuric acid**
[10] This functional group is a sulfur-containing analogue of alcohols. They were once called mercaptans, and they give garlic its odor.
ANSWER: **thiol**s
[10] Sulfur has an eight-atom one of these. Examples for carbon include graphite and diamond.
ANSWER: **allotrope**s

16. One poem claims that the executions rolled off the tongue of this country's leader "like berries." For 10 points each:
[10] Name this no-longer-existent state, whose ruler was the subject of Osip Mandelstam's "Stalin Epigram."
ANSWER: the **Soviet Union** [accept **USSR**; do not accept or prompt on "Russia"]
[10] Josef Stalin was fictionalized as Number One, the supreme leader of the party, in this author's story of political prison Nikolay Rubashov, *Darkness at Noon*.
ANSWER: Arthur **Koestler**
[10] An Ilya Ehrenberg novel gave its name to "The Thaw," a period of literary tolerance during the reign of this Soviet Premier.
ANSWER: Nikita **Khrushchev**

17. Recognizable types of these atmospheric phenomena include cumulus and cumulonimbus. For 10 points each:
[10] Name these masses of water droplets or ice crystals that are suspended in the sky.
ANSWER: **cloud**s
[10] This type of cloud is formed from the aggregation of ice crystals at high altitudes of over 20,000 feet.
ANSWER: **cirrus** clouds
[10] This artificial cloud resembles a cirrus cloud, but is typically formed from the ejection of water vapor from a jet engine into a sufficiently cold atmosphere.
ANSWER: **contrail**s [or **condensation trail**s; prompt on **jet trail**s]

18. This architect created one building with a room called the Sky Church, intended to be an homage to Jimi Hendrix. For 10 points each:
[10] Name this creator of the Experience Music Project in Seattle, who also designed the Guggenheim Bilbao.
ANSWER: Frank Owen **Gehry** [or Ephraim Owen **Goldberg**]
[10] Gehry's architectural depiction of Fred Astaire and Ginger Rogers, the Dancing House, is located in this European capital that also has the Charles Bridge and an astronomical clock.
ANSWER: **Prague** [or **Praha**]
[10] This Gehry creation is home to the Los Angeles Philharmonic. It is part of the city's Music Center along with the Dorothy Chandler Pavilion, Ahmanson Theater, and Mark Taper Forum.
ANSWER: **Walt Disney Concert** Hall

19. This city is home to Radio City Music Hall, where the Rockettes regularly perform, and Julliard school is found in Lincoln Center in this city. For 10 points each:
[10] Name this city, which is called "the big apple" and which has the Empire State Building and Central Park found on its island Manhattan.
ANSWER: **New York** City
[10] This borough of New York City is coterminous with Kings County. It is home to Coney Island and the nearby Brighton Beach neighborhood on its southern coast.
ANSWER: **Brooklyn**
[10] This neighborhood in Manhattan, also called Clinton, is bounded roughly by 59th and 40th street. It was home to violent gangs that inspired its name.
ANSWER: **Hell's Kitchen**

20. The protagonist of this work is made to eat bananas by a religious teacher, leading him to enjoy only tinned salmon. For 10 points eahc:
[10] Name this work in which the title protagonist accidentally marries into the Tulsi family, becomes a journalist, and ultimately acquires the title abode.
ANSWER: *A __House for Mr. Biswas__*
[10] This Trinidadian author of *A House for Mr. Biswas* also wrote *Miguel Street*.
ANSWER: Vidiadhar Surajprasad **Naipaul**
[10] This Naipaul novel follows the Indian Muslim Selim, who lives in a country often compared to Zaire or Uganda ruled by the Big Man.
ANSWER: *A __Bend in the River__*

21. This economic concept has a "Hicksian" or "compensated" function in which expenditures are minimized at a fixed level of utility. For 10 points each:
[10] Name this economic concept, contrasted with supply.
ANSWER: **demand**
[10] This English economist wrote a massive 1890 text called *Principles of Economics* and is the namesake of the uncompensated demand function.
ANSWER: Alfred **Marshall** [accept **Marshallian** demand]
[10] This equation, named for a Russian economist, relates changes in Marshallian demand to changes in Hicksian demand.
ANSWER: **Slutsky** equation [accept **Slutsky** identity]