

# **LADUE INVITATIONAL SPRING TOURNAMENT 2012**

Round 7

## TOSS-UPS

**1. In one novel with this adjective in the title, The Marshal is stricken with the title illness and not cured by Dr. Galen, while another sees Arabella March face off with Adam Salton, who uses dynamite to destroy the title creature. In addition to a Karel Capek novel about a plague of this type, and Bram Stoker's *The Lair of the [this] Worm*, this color describes the jacket of a sailor on the *Neversink* in a Melville work and a woman in a (\*) Wilkie Collins novel, as well as titling a novel about Jack Gladney, a professor of Hitler Studies. For ten points, identify this color which accompanies "Noise" in the title of a Don DeLillo work, the color of a man whose burden was discussed by Rudyard Kipling.**

ANSWER: **white** (accept any titles like *The White Plague/Disease*, *The Lair of the White Worm*, *White Jacket*, *The Woman in White*, *White Noise*, and "The White Man's Burden, or *Bila Nemoc*, Capek's original language title)

<MS>

**2. Johann Lowitz first obtained the "pure" type of this compound by filtering its distilled form through activated charcoal. Toxins such as pyridine and naphtha are agents added to make the "denatured" variety of this substance, while the "absolute" variety of this substance can be obtained by using a small quantity of (\*) benzene. In the presence of a phosphoric acid catalyst, this compound is formed by the hydration of ethylene, and its most common application is as a biofuel additive for gasoline. A byproduct of yeast cells undergoing fermentation, for ten points, name this compound with formula C<sub>2</sub>H<sub>5</sub>OH that is commonly found in liquor.**

ANSWER: **ethanol** (accept **ethyl alcohol**; prompt on "alcohol")

<EnzeC>

**3. Benjamin Rush's "seeds of slavery" speech led to this event, and a congregation took place at the Old South Meeting House prior to this event, because Faneuil Hall was too small. Governor Thomas Hutchinson's refusal to let the *Dartmouth* leave without paying duties was the primary cause of this event, while Britain passed the (\*) Intolerable Acts in response to this event. For ten points, identify this event coordinated by the Sons of Liberty in which a group of Massachusetts colonists disguised as Mohawk Indians boarded three vessels and dumped the namesake product into the harbor.**

ANSWER: **Boston Tea Party**

<EnzeC>

**4. One essay that laid the foundation for this school of thought used the dichotomy between musical notes and rests to distinguish between things we are "immediately" and "mediately" conscious of and also discusses three grades of clearness of conception. One work titled after this movement distinguishes between tough and tender-minded philosophers and discusses whether a man chasing a (\*) squirrel around a tree goes around the squirrel or not. Other works written by proponents of this philosophical tradition include "How to Make Our Ideas Clear" and *Democracy and Education*. For ten points, name this school of thought championed by C. S. Peirce, John Dewey, and William James which focuses on linking hypotheses to their "practical consequences."**

ANSWER: **pragmatism**

<HX>

**5. This man painted a grey-haired, smirking man with his index finger in a book looking at his wife in *Mr. and Mrs. Thomas Mifflin*. Another of his works sees a group of mostly left-facing soldiers in red, and a large British flag held in front of smoke; that work is *The Death of Major Peirson*. This man portrayed his half-brother Henry Pelham holding a gold chain in (\*) *Boy With a Squirrel*, and painted a portrait of Paul Revere. He is most famous for depicting a naked blond boy struggling for his life while a man in Havana Harbor attempts to spear the title creature to death. For ten points, name this American artist of *Watson and the Shark*.**

ANSWER: John Singleton **Copley**

<KT>

6. This country's current prime minister was sworn in a week after being chosen to serve as a senator for life, before which he had served as the European finance commissioner from 1999 to 2004. The previous prime minister ratcheted up \$2.6 trillion in debt, and this country's prime minister recently won passage of his austerity plan in this country's (\*) Chamber of Deputies. The cruise ship Costa Concordia recently capsized after hitting a reef off the coast of this country. For ten points, name this country whose current prime minister Mario Monti replaced the disgraced Silvio Berlusconi.

ANSWER: The Italian Republic (accept Italy)

<DA>

7. Raizen, Muga, and Ruschhaupt's "single-photon cooling" is the closest it is possible to get to this entity, and Rolf Landauer's refutation of this idea argues that information cannot be stored indefinitely, leading him to the conclusion reached earlier by Leo Szilard. The most famous disproof of it claims that it would have to (\*) expend energy to measure speeds and sort particles, preventing entropy from decreasing. For ten points, identify this physics thought experiment in which the Second Law of Thermodynamics would be violated by its namesake creature.

ANSWER: Maxwell's Demon

<MS>

8. This poet wrote about a contest between "fire, air, earth and water" to see "which was the strongest, noblest and the best". Another of this author's works ends by telling the reader, "The World no longer let me love/ the world and treasure lies above" and the title event occurs "In a silent night when rest I took". In addition to "The Four Elements" and (\*) "Verses Upon the Burning of our House" this poet wrote "thou ill-formed offspring of my feeble brain" and that "If ever two were one, then surely we" in a larger poetry collection. For ten points, name this seventeenth-century American female poet who included her poems "To My Dear and Loving Husband" and "The Author to her Book" in her collection, *The Tenth Muse Lately Sprung Up in America*.

ANSWER: Anne Bradstreet

<KT>

9. The Baha'i Faith places this figure's descendants as spiritually greater than everyone else and claims that he lived for 950 years. This son of Lamech cursed his grandson Canaan to be the "lowest of slaves" because Canaan's father caught this figure naked. This figure has been compared to the Greek mythological figure (\*) Deucalion, who was also given an olive branch by a messenger pigeon. This father of Japheth, Shem, and Ham was well-known for a Rainbow Covenant, which protected all animals, that occurred on Mount Ararat. For ten points, name this biblical figure who survived a flood by sailing for 40 days and 40 nights on an ark.

ANSWER: Noah (or Noe; or Novach)

<KT>

10. In retribution for attacking Subartu, a deity supposedly cursed this ruler's people with famine. This figure defeated Lugalzagesi after rising to power in Kish, and he later appointed Rumish as his successor. This ruler grew up as a (\*) cupbearer to the king Ur-Zababa before he revolted and became the king himself, and his daughter Enheduanna became a High Priestess to the moon god Nanna. This man, who gained the loyalty of his soldiers by eating with them daily, conquered various Sumerian city-states in the 23rd and 22nd centuries BC. For ten points, name this supposed inspiration for Nimrod in the Bible, a war-loving ruler of Akkad.

ANSWER: Sargon I (or Sargon the Great; or Sargon of Akkad)

<MukS>

## HALFTIME

11. One rarely-included chapter in a novel about this man details his fight with wolves while transporting his wealth through the Pyrenees. This man was captured by Moorish pirates but escapes with the boy Xury, finding his way to Brazil where he owns a plantation. This man labels a land close to the Orinoco River as "The Island of Despair" before meeting a group of (\*) cannibals that eat other humans for strength. This man's story was based on that of Alexander Selkirk, and he teaches one of the cannibals, Friday, how to speak English. For ten points, name this fictional castaway described in a Daniel Defoe novel.

ANSWER: Robinson Crusoe (accept either underlined portion)

<KT>

**12. Men involved in this battle asked each other who Mickie Mouse's girlfriend was after the aggressors of this battle infiltrated enemy ranks and sabotaged progress in Operation Greif. In this battle, the Peipers, after capturing an enemy unit of 150 men, murdered 84 of them in an event known as the (\*) Malmedy Massacre. The instigators of this offensive met fierce resistance in the city of Bastogne from a small force led by Brigadier General McAuliffe, who, when asked to surrender, cried "Nuts!" before being relieved by General Patton's Third Army. For ten points, name this last German offensive in the Ardennes, in which Adolf Hitler attempted to recapture Antwerp.**

ANSWER: Battle of the Bulge (accept the Ardennes Offensive before mentioned)

<MukS>

**13. The eastern portion of this country contains the Dasht-e-Kavir and Dasht-e-Lut deserts. This country contains the Khuzestan Plain, and Mt. Damavand is found in its Alborz Mountains. Its city of Bandar-e-Abbas lies on a strait that transports a third of the world's seaborne oil shipments. The (\*) Zagros Mountains are located in this country which was home to the ancient cities of Ecbatana and Persepolis. Modern-day cities in this country include Tabriz and Esfahan, and, like Oman, it abuts the Strait of Hormuz. This country is bordered by the Caspian Sea to the north and the Persian Gulf to the south. For ten points, name this large Islamic republic with capital at Tehran.**

ANSWER: Islamic Republic of Iran

<JD>

**14. Combining one of these compounds with a reducing sugar can be used to produce different flavors in the Maillard reaction, while reacting an aldehyde with potassium cyanide and ammonia is involved in the Strecker synthesis of these molecules. The dihedrals of these compounds can be visualized using a Ramachandran plot, and people with PKU cannot metabolize one of these compounds. Nine (\*) "essential" ones, including phenylalanine [fee - nol - AL - a - neen] and tryptophan [TRIP - toe - fan], cannot be synthesized by the human body, and glycine is the simplest of these molecules. For ten points, name these organic compounds which are joined by peptide bonds to form proteins.**

ANSWER: amino acids

<HX>

**15. Each "bulb" of the Mandelbrot set is an inverse of one of these figures, because the bulbs are cardioids. Menaechmus found a solution to the problem of doubling the cube by intersecting two of these figures, and Joachim Jungus demonstrated that a catenary was not one of these curves. This shape is the locus of all points equidistant from a focus and a line called a (\*) directrix. This figure is equivalent to an ellipse with one focus at infinity, and it has an eccentricity of one. For ten points, identify this conic section, whose vertical variety is the graph of a quadratic equation, one example of which has equation  $y$  equals  $x$ -squared.**

ANSWER: parabola (accept quadratic function/curve before mentioned)

<MS>

**16. Characters in this film include Deb, who constantly searches for her sister, and Jacques, who is obsessed with cleaning. In response to a dentist's niece singing "Twinkle Twinkle Little Star", Peach cries out "Find a happy place! Find a happy place!" The main character ascends Mount Wanaakalugi and passes through the Ring of Fire before being given the name (\*) "Sharkbait." Meanwhile, two other characters try to find P. Sherman at 42 Wallaby Way, Sydney and encounter a helpful school of moonfish and some vegetarian sharks on the way. For ten points, name this Pixar film about Marlin and Dory trying to locate the title clownfish.**

ANSWER: Finding Nemo (do not accept just Nemo)

<CC>

**17. In one of this man's works, the aria *Heute noch, lieber Vater* is sung by Lieschen, who is addicted to the title drink. In addition to the *Coffee Cantata*, this man also created a collection of "puzzle canons" based on the "King's theme" called *The Musical Offering*. The second movement of this composer's Orchestral Suite No. 3 was adapted by August Wilhelmj into the "Air on the G String," while one of his works for (\*) harpsichord that includes an aria and 30 variations is named after its first performer. This man also wrote three sonatas and three partitas for solo violin, as well as six suites for solo cello, and six Brandenburg concertos. For ten points, name this German composer of the *Goldberg Variations* and *Tocatta and Fugue in D Minor*.**

ANSWER: Johann Sebastian Bach (prompt on Bach)

<HX>

**18. The Greek equivalent of this letter denotes the curvature of space curves in math, while this letter in biology is given to organisms that live longer and have fewer offspring than their “r-strategist” counterparts. This letter in electromagnetism represents a constant equal to one over quantity four pi times the (\*) permittivity of free space, which is multiplied by charge over distance squared to find electric force in Coulomb’s law. The vitamin of this letter is important in blood clotting, while in chemistry, the equilibrium constant is symbolized by this letter. An element often used in fertilizers is represented by, for ten points, which letter of the English alphabet, the chemical symbol for potassium?**  
 ANSWER: K (accept kappa or C before “live longer” but do not prompt after)

<HX>

**19. This event was recorded in a now-lost epic poem by Eumelus of Corinth. One side in this conflict had their base at Mount Othrys, and the main leader of that side would later move on to rule the Isles of the Blessed. The beginning of it ended the peaceful Golden Age of man, and the leader of another side in this conflict was raised by the goat Amalthea and had his siblings (\*) regurgitated due to a potion brewed by the goddess Metis. The Hekatonkheires assisted one side by throwing rocks at the opponents, and the Cyclopes provided lightning bolts for Zeus to use as weapons during this event. It ended with the imprisonment of Kronos and many of his brothers. For ten points, name this conflict between the Olympians and the children of Gaia and Uranus.**

ANSWER: Titanomachy (accept war between Olympians/gods and Titans or equivalents)

<BZ>

**20. Tupac Amaru II rebelled against Spanish rule in this country, and this country’s independence was sealed after a battle in which Royalist forces under Viceroy La Cerna were defeated by Antonio Jose de Sucre. This country was the site of the Battles of Callao and Ayacucho, and it is currently the home of a Maoist terrorist group formerly led by Abimael Guzman called (\*) Shining Path. This country was led in the 1990’s by Japanese-descent president Alberto Fujimori, and it fought with Bolivia against Chile in the War of the Pacific. For ten points, identify this South American country home to Machu Picchu, with capital at Lima.**

ANSWER: Republic of Peru

<JD>

## **End of regulation, only proceed if tied**

**21. One character of this work, Peter, describes how Chrysostom fell in love with Marcela. The protagonist of this work attempts to end Master Pedro’s puppet show by tossing rocks and also discovers that the helmet of Mambrino was in the hands of a barber before trying to retrieve it. That character encounters Samson Carrasco dressed as the (\*) Knight of the White Moon, and also falls in love with Dulcinea. The title character of this work travels with the horse Rocinante, mistakes windmills for ferocious giants, and is accompanied by his “squire” Sancho Panza. For ten points, name this novel written by Miguel de Cervantes.**

ANSWER: *The Ingenious Gentleman* Don Quixote of La Mancha (or *El ingenioso hidalgo* don Quijote de la Mancha)

<KT>

**22. This country contains the Mambilla Plateau as well as the the western end of the Adamawa Plateau, through which the Benue River flows. Kano is this country’s second largest city, and the Bight of Bonny lies to this country’s southwest. This country was home to a breakaway country formed by native Igbo people, the Republic of (\*) Biafra. The Gulf of Guinea lies to the southwest of the country, which contains the Niger River delta. Lake Chad lies to the northeast of this country, which borders Benin to the west and Cameroon to the east and whose largest city is Lagos. For ten points, identify this most populous African country whose capital is Abuja.**

ANSWER: Federal Republic of Nigeria

<JD>

## BONUSES

1. Bonus: Its near-field type is named for Fresnel, and it can be explained through the Hyugens principle. For ten points each:

[10] Name this phenomenon which occurs when light propagates and spreads out upon encountering an object.

ANSWER: diffraction

[10] This English scientist established the principle of wave-particle duality using the diffraction of light through a card with parallel slits in his namesake “double-slit” experiment.

ANSWER: Thomas Young

[10] Young also names a type of this quantity, which can be found by taking the ratio of stress to strain in a material. The “bulk” type of this quantity is the inverse of compressibility.

ANSWER: modulus

<HX>

2. Bonus: Examples of it include *Bleach* and *Naruto*. For ten points each:

[10] Name this type of comics that is generally created in Japan. When made into TV series or films, they are called anime.

ANSWER: manga

[10] This ongoing *manga* series is written by Eiichiro Oda and centers on a pirate named Monkey D. Luffy (LOO-fee) who strives to become the next Pirate King.

ANSWER: One Piece

[10] In order to become the Pirate King, Luffy must conquer this vast ocean, which is cut in two by the Red Line and which is surrounded by the Calm Belts. Alabasta, Marineford, and Impel Down lie on this ocean.

ANSWER: Grand Line

<JD>

3. Bonus: This figure wrote his “April Theses” while returning from exile in Switzerland on a sealed train. For ten points each:

[10] Identify this leader of the Bolsheviks, who led the 1917 October Revolution and later became the first leader of the Soviet Union. The previous Russian capital of St. Petersburg was once named after him.

ANSWER: Vladimir Ilyich Lenin

[10] This Marxist created the Red Army after participating in the October Revolution. He later opposed Joseph Stalin, which led to his exile and eventual assassination with a ice pick in Mexico.

ANSWER: Leon Trotsky (or Lev Davidovich Bronstein)

[10] This group split from the Bolsheviks after a 1904 dispute between Lenin and Julius Martov, the latter of whom would later become this group’s leader. Its name was derived from the Russian word for “minority.”

ANSWER: Mensheviks

<JD>

4. Bonus: Varignon’s theorem states that one of these figures is formed by the midpoints of the sides of a quadrilateral. For ten points each:

[10] Identify this type of quadrilateral, in which opposite angles are equal and whose opposite sides have equal length.

ANSWER: parallelogram

[10] Given two vectors, the area of the parallelogram they form can be found by performing this mathematical operation on the two of them.

ANSWER: vector cross product (or Gibbs vector product)

[10] Adjacent angles in a parallelogram have this property, meaning they sum to 180 degrees.

ANSWER: supplementarity (or word forms)

<MS>

5. Bonus: One character in this novel visits the Hermann Goering Casino. For ten points each:

[10] Identify this novel, in which Tyrone Slothrop is able to predict the location of German V-2 rocket strikes.

ANSWER: **Gravity's Rainbow**

[10] This American author of *Gravity's Rainbow* wrote about the title surveyors in *Mason & Dixon*. He also penned such novels as *Vineland*, *Inherent Vice*, and *V*, and Meatball Mulligan throws a party in this author's short story "Entropy."

ANSWER: Thomas Ruggles **Pynchon**, Jr.

[10] Pynchon also wrote this post-modern novel, in which Oedipa Maas finds out about the secret postal organization Trystero, unraveling the mystery behind the company's conflict with Thurn und Taxis.

ANSWER: **The Crying of Lot 49**

<MS>

6. Bonus: Name some people involved with the Golden Fleece, for ten points each:

[10] This master musician descended into the Underworld in an attempt to reunite with his wife Eurydice. In the quest for the Golden Fleece, he played his lyre to counter the Sirens' song.

ANSWER: **Orpheus**

[10] This princess of Colchis helped Jason retrieve the Golden Fleece with her sorcery and killed her brother Aspyrtus to facilitate the Argonauts' escape.

ANSWER: **Medea**

[10] This ruler of Colchis and son of Helios welcomed Phrixus to his kingdom after Ino tried to kill him and his sister Helle. Phrixus rewarded this man's hospitality with the Golden Fleece, which was later taken by Jason.

ANSWER: **Aeëtes**

<BZ>

7. Bonus: This property was first discovered by Friedrich Wöhler ("vou-ler") after he noted the different properties of cyanic acid and fulminic acid. For ten points each:

[10] Give this name used to describe chemical compounds with the same molecular formula but different structural formulas.

ANSWER: **isomerism**

[10] Unlike structural isomerism, in which molecules bond together in different orders, this type of isomerism applies to molecules that differ only in their spatial orientation.

ANSWER: **stereo**isomerism

[10] Enantiomers exhibit this property of asymmetric isomerism, used to describe molecules that cannot be superposed onto their mirror images.

ANSWER: **chiral**ity

<EnzeC>

8. Bonus: It was originally commissioned to accompany an educational film, and it ends after the narrator explains that the title entity is about to be put back together. For ten points each:

[10] Name this didactic work by Benjamin Britten, based on a melody from Henry Purcell's *Abdelazar*, which highlights each section of the orchestra.

ANSWER: *The **Young Person's Guide to the Orchestra**, Variations and Fugue on a Theme of Purcell, Op. 34*

[10] This instrument begins the fugue at the end of *The Young Person's Guide to the Orchestra*, followed by the woodwinds, strings, brass, and percussion. The classical type of this half-sized flute is called a fife.

ANSWER: **piccolo** (accept **ottavino**)

[10] Britten also composed this opera, based on George Crabbe's poem, *The Borough*. It tells the story of the title fisherman who is accused of killing his apprentice, John.

ANSWER: **Peter Grimes**

<HX>

9. Bonus: Name some famous Native American chiefs, for ten points each:

[10] This Lakota chief helped Chief Gall and Sitting Bull defeat George Custer at the Battle of Little Bighorn. A gigantic monument of him is currently being carved into the Black Hills.

ANSWER: Crazy Horse (or His Horse is Crazy; or Thašúnke Witkó)

[10] This chief led his Nez Perce tribe in an attempt to escape to Canada, but was captured a mere 40 miles from the border. He famously stated, "From where the sun now stands, I will fight no more forever."

ANSWER: Chief Joseph (or Young Joseph; or Thunder Rolling Down the Mountain; or Hin-mah-too-yah-lat-kekt)

[10] This Apache chief led many massacres against settlers in the Southwest. He repeatedly tried to escape life on the reservation, but finally surrendered to Nelson Miles at Skeleton Canyon in 1886.

ANSWER: Geronimo (or One Who Yawns; or Govaalé; or Goyathlay or Goyahkla)

<JD>

10. Bonus: The title character's valet Osip persuades him to return to St. Petersburg. For ten points each:

[10] Identify this play, in which Khlestakov gets engaged to the Mayor's daughter and collects large bribes after being confused for the title bureaucratic official.

ANSWER: *The Inspector General* or *The Government Inspector* (or *Revizor*)

[10] This Russian author of *The Inspector General* wrote of Chichikov buying the title entities to appear wealthy in his unfinished *Dead Souls*.

ANSWER: Nikolai Vasilievich Gogol

[10] In this Gogol short story, Akaky Akakievich saves up enough money to buy the title garment only to have it stolen by some thugs on his way home from a party.

ANSWER: "The Overcoat" (or "Shinel" or "The Cloak")

<MS>

11. Bonus: Identify some Asian rivers, for ten points each:

[10] This largest Mesopotamian river begins at the confluence of the Karasu and Murat River. It later flows past Ataturk Dam and joins with the Tigris River to form the Shatt al-Arab.

ANSWER: Euphrates River

[10] This river rises in Tibet and flows through the Punjab and Sindh provinces of Pakistan before draining into the Arabian Sea. It gives its name to a Bronze Age civilization which included cites like Mohenjo-Daro and Harappa.

ANSWER: Indus River

[10] This largest river in Myanmar flows past Mandalay before draining into the Andaman Sea near Yangon.

ANSWER: Irrawaddy River (or Ayeyarwady River)

<JD>

12. Bonus: Its radix type can start from either the least significant digit or the most significant digit of a number, while its time type is a hybrid of its insertion and merge types. For ten points each:

[10] Name this type of computer algorithm which reorders the elements of a list.

ANSWER: sorting

[10] This sorting algorithm uses constant memory, but has an average running time of big O of  $n$  squared. It continually steps through a list, comparing adjacent items and switching them if they are in the wrong order.

ANSWER: bubble sort

[10] This other sorting algorithm, named for its speed, can sort  $n$  items in big O of  $n \log n$  time. Its essential step involves choosing a pivot and sorting elements based on whether they are greater or less than the pivot.

ANSWER: quicksort

<HX>



13. Bonus: One principle this holiday commemorates is *umoja*, or unity. For ten points each:

[10] Name this African-American gift-giving holiday that celebrates seven principles over seven days, from December 26 to January 1.

ANSWER: Kwanzaa

[10] This creator of Kwanzaa enacted the holiday in the United States in 1966 and presented his principles in his doctrine, the *Nguzo Saba*, or the Seven Principles of Blackness.

ANSWER: Dr. Maulana Karenga

[10] During Kwanzaa, seven of these objects are used to represent the different principles. Jews use a total 44 of these objects over the course of Hanukkah.

ANSWER: candle (accept obvious equivalents like “columns of solid wax”)

<KT>

14. Bonus: He created the League of Corinth after defeating Athens at Chaeronea. For ten points each:

[10] Name this Macedonian king who initiated the invasion of Persia and was assassinated by his bodyguard Pausanias.

ANSWER: Philip II of Macedon

[10] Philip II's son was this man, who is said to have cut the Gordian knot, and created a Hellenistic Empire in the Middle East. Aristotle tutored him, and the Diadochi succeeded him in running the empire.

ANSWER: Alexander the Great

[10] Alexander the Great won this battle against Darius III near the Pinarus River in southern Anatolia. Darius fled away and let his army become disorganized, and Alexander won at Guagamela two years after this battle.

ANSWER: Battle of Issus

<KT>

15. Bonus: The protagonist of this work is offered a job by Alice Fairfax. For ten points each:

[10] Identify this novel, in which the protagonist befriends the consumptive Helen Burns at Lowood before going to Thornfield Hall and falling in love with Edward Rochester.

ANSWER: Jane Eyre

[10] An exciting plot twist occurs when it is discovered that Rochester is actually married to this crazy lady, whom he keeps locked up in his attic. She later dies after setting fire to Thornfield.

ANSWER: Bertha Mason (prompt on Mason)

[10] *Jane Eyre* is the most famous work of this author, who wrote under the pseudonym Currer Bell.

ANSWER: Charlotte Brontë (prompt on just Brontë)

<MS>

16. Bonus: This work was criticized by Charles Hockett and Geoffrey Sampson. For ten points each:

[10] Identify this 1957 work on transformational grammar which contains the correct yet meaningless sentence, “Colorless green ideas sleep furiously.”

ANSWER: Syntactic Structures

[10] *Syntactic Structures* was written by this MIT professor who criticized BF Skinner's work *Verbal Behavior* and claimed that children have a “poverty of the stimulus.”

ANSWER: Avram Noam Chomsky

[10] Chomsky is often called “the father of modern [this].” This field studies languages and other pioneers of this field include Ferdinand de Saussure.

ANSWER: linguistics

<JD>

17. Bonus: Answer some questions about 2011's natural disasters, for ten points each:

[10] This hurricane killed 47 Americans and caused several billion dollars in damages after making landfall in North Carolina in late August of 2011. Fortunately, major east coast cities like New York did not get flooded as expected.

ANSWER: Hurricane **Irene**

[10] On October 23, 2011 a 7.1-magnitude earthquake struck near Van in the eastern portion of this country. The earthquake was also felt in nearby Armenia and Iran, and tremors reached as far as this country's capital of Ankara.

ANSWER: Republic of **Turkey**

[10] Monsoons have caused heavy flooding in this Southeast Asian country, which is home to the Chao Phraya River. As of the end of 2011, the floods are still ongoing, leading to a spike in hard drive prices.

ANSWER: Kingdom of **Thailand**

<JD>

18. Bonus: The Tuileries Gardens lie east of it and a large glass pyramid sits in the main court. For ten points each:

[10] Name this French art museum that houses the *Mona Lisa* and the *Venus de Milo*.

ANSWER: Musée du **Louvre**

[10] This Chinese-American architect of the glass pyramid in front of the Louvre also designed the John Hancock Tower, John F. Kennedy Library, and Bank of China Tower.

ANSWER: Ioh Ming **Pei**

[10] I. M. Pei also created this building with seven floors in Cleveland, Ohio close to Lake Erie. Each floor of the building provides different exhibits centering on influential musicians.

ANSWER: **Rock and Roll Hall of Fame**

<KT>

19. Bonus: This people believed that the Toltecs were the source of all the great cultural achievements in Mesoamerica. For ten points each:

[10] Name this Central American empire which lasted from the 14th to 16th centuries and had leaders such as Moctezuma II.

ANSWER: **Aztec** Empire

[10] The Aztec ruled from this capital city, the site of modern day Mexico City.

ANSWER: **Tenochtitlan**

[10] Tenochtitlan was situated on an island in this body of water found in the Valley of Mexico that has no natural surface outflow.

ANSWER: Lake **Texcoco**

<EnzeC>

20. Bonus: In one scene from this work, the title character arrives at an island of edible algae inhabited by meerkats. For ten points each:

[10] Identify this novel about the title character stranded at sea for 227 days with a Bengal tiger.

ANSWER: **Life of Pi**

[10] This Canadian author was awarded the 2002 Man Booker Prize for *Life of Pi*.

ANSWER: Yann **Martel**

[10] This Stephen Crane short story also tells of the survivors of a shipwreck trying to reach the shore. It begins, "None of them knew the color of the sky."

ANSWER: "The **Open Boat**"

<EnzeC>

21. Bonus: Patients with this condition can have hyperphosphorylated tau tangles in their brain. For ten points each:

[10] Name this disorder that causes 80% of all cases of dementia and mostly affects seniors.

ANSWER: **Alzheimer's disease**

[10] One theorized cause for Alzheimer's Disease is the due to low levels of this neurotransmitter, the first one to be labeled as such. This compound is responsible for muscle contraction.

ANSWER: **acetylcholine** (prompt on **ACh**)

[10] Acetylcholine serves as a transmitter for these cells which communicate through synapses. These cells possess dendrites and a long axon tail, and are partially surrounded by a myelin sheath.

ANSWER: **neurons** (or **nerve** cell)

<KT>

22. Bonus: Fleischmann and Pons claimed to have developed this process, but their results were never replicated. For ten points each:

[10] Identify this nuclear process in which multiple atomic nuclei combine at low temperatures to form a larger nucleus, creating energy in the process.

ANSWER: nuclear **cold fusion** (prompt on just **fusion**)

[10] In hydrogen bombs, the fusion reaction needs to be started with energy from this type of process, which commonly releases neutrons and photons in the form of gamma rays.

ANSWER: nuclear **fission**

[10] This toroidal reactor was invented by Tamm and Sakharov and uses a magnetic field to confine a plasma. It may eventually be able to use fusion as a viable energy source.

ANSWER: **tokamak**

<MS>