

**LADUE INVITATIONAL
SPRING TOURNAMENT 2011**

Round 2

TOSS-UPS

1. This man gave what is often considered the “most eloquent speech in Congress,” his reply to Hayne, and he supported the Compromise of 1850 in the “Seventh of March speech.” As Secretary of State in 1842, he helped end of the Aroostook War and settle the dispute over the location of the (*) Maine border in a treaty named for him and Ashburton. For ten points, name this Massachusetts senator, who, along with John Calhoun and Henry Clay, was part of the Great Triumvirate.

ANSWER: Daniel **Webster**

<RU>

2. In 1986, large amounts of this compound erupted from the bottom of Lake Nyos. In the Sabatier process, this molecule reacts with hydrogen to produce methane and water. The abundance of this molecule in the atmosphere is 388 ppm, making it the second most common (*) greenhouse gas after water vapor. For ten points, identify this chemical compound, a byproduct of cellular respiration, consisting of a carbon atom covalently bonded to two oxygen atoms.

ANSWER: **carbon dioxide** (accept **CO2** before “oxygen”, afterward, prompt)

<EnzeC>

3. In one section of this work, the narrator sees one who is both a king and a conqueror ride forth on a white horse, while in another section, the narrator envisions a plague of locusts terrorizing the earth for five months. In the beginning of this work, the narrator writes letters to seven cities to warn them of their (*) sins, while the chief antagonist is prophesized to be defeated in battle and cast into the lake of fire, along with all the wicked. For ten points, name this work that sees 144,000 sealed and Satan defeated, commonly considered the last book of the Bible.

ANSWER: Book of **Revelation** (do NOT accept Revelations)

<JD>

4. These entities are not always explicitly noted in abjads, most of which are Semitic in origin. In Hebrew, they are denoted with Nikkud, and in Arabic, they can be altered via Imalah. Otto Jespersen studied a (*) “great shift” in these entities, and when two of these occur in the same syllable, they form a diphthong. Coming in long and short varieties, The letter Y is sometimes considered one of, for ten points, what type of sound, which in English is represented by “A”, “E”, “I”, “O”, and “U”?

ANSWER: **Vowel**

<MS>

5. One of this man's last works sees Rosalie fall in love with an American-born tutor before dying of cancer, and, in another, the hypnotist Cipolla represents fascist Europe. In addition to *The Black Swan* and *Mario and the Magician*, this man wrote a novella in which a man dies while attempting to get up to chat with (*) Tadzio; that man is Gustav von Aschenbach. Another of his novels describes the decline of a prosperous family living in Lubeck, this author's birthplace, and a third tells of Hans Castorp's stay in a sanatorium. For ten points, name this author of *Death in Venice*, *Buddenbrooks*, and *The Magic Mountain*.

ANSWER: Thomas Mann

<MS>

6. Fighting with this empire prolonged an event that almost overthrew Catherine the Great, Pugachev's Rebellion, and this empire supported the Aceh Sultanate in its fight against the Portuguese. This empire employed the devshirme system to conscript Christian boys and underwent the (*) Tanzimat reforms, and this empire fell into civil war following the capture of Bayezid I by Timur in 1402. The Tulip Era was a peaceful time in, for ten points, what "sick man of Europe," an empire that saw the reign of Suleiman the Magnificent and was succeeded by the Republic of Turkey?

ANSWER: Ottoman Empire

<HX>

7. The secret Project Hammertong recovered one part necessary for this structure's creation, and Garm Bel Iblis was freed from here by Galen Marek. The blueprints of this structure were smuggled to Polis Massa and from there to the Tantive IV, hastening its destruction, and needed labor for the construction of this structure prompted an invasion of (*) Kashyyyk. One of its exhaust ports is approximately the size of a womp rat, and can be reached by travelling down a TIE-fighter guarded trench. Used to destroy Alderaan and almost Tatooine, this is, for ten points, what superweapon, capable of destroying planets, which was destroyed in the Battle of Yavin by Luke Skywalker?

ANSWER: Death Star I (accept DS-I Orbital Battle Station, prompt on Seperatist Ultimate Weapon, or Expeditionary Battle Planetoid, accept Death Star II before "freed")

<MS>

8. This man painted a scene in which Don Gonzalo Ruiz is laid to rest by Saint Augustine and Saint Stephen. He also painted a work in which a blue-clad man raises his arms to heaven while naked people behind him are given white robes. One of his works depicts the (*) Castle of San Servando on the right, below a dark, stormy sky, and this man's work probably served as the inspiration for Picasso's *Les Femmes d'Alger*. For ten points, name this Spanish artist of *The Burial of the Count of Orgaz*, *The Opening of the Fifth Seal*, and *The View of Toledo*, whose name literally means "the Greek".

ANSWER: El Greco or Domenikos Theotokopoulos

<MS>

9. A failure of the enzyme that takes apart sphingolipids in this organelle may cause Gaucher's disease. Failures in these organelles can also cause Mucopolysaccharidosis I, which is caused by the lack of function by the enzyme L-iduronidase, and these organelles have a pH of (*) 5. Tay-Sachs disease is also caused by a failure in these organelles, which are nicknamed "suicide sacs" due to their critical role in autolysis. For ten points, name this organelles which digest macromolecules and are made by the Golgi apparatus.

ANSWER: Lysosome

<KT>

10. This man's only novel is about a stowaway on the *Grampus* and he wrote about a "tintinnabulation that so musically wells". In addition to *The Narrative of Arthur Gordon Pym* and "The Bells", he wrote about a young man and his love who lived in a (*) kingdom by the sea. In one of this man's stories, the narrator wants to kill an old man because of his vulture-like eye, and he wrote about a man "pondering weak and weary" and a bird which repeats "Nevermore". For ten points, name this author of "Annabel Lee", *The Tell-Tale Heart* and "The Raven".

ANSWER: Edgar Allen Poe

<MS>

HALFTIME

11. A "renaissance" of this civilization occurred in the 21st century BC, which was ended by Semetic-speaking Amorite invaders, but this "land of the civilized lords" first took form in the Uruk period. This civilization created the Code of Ur-Nammu, and is thought to have developed writing during the Jemdet Nasr period. This civilization also adopted (*) agricultural techniques such as mono-cropping, intensive cultivation, and organized irrigation, which, combined with the silt-deposits resulting from flooding of the Tigris and Euphrates rivers, lead to this civilization's agricultural culture. For ten points, name this ancient Mesopotamian civilization that developed cuneiform and was most famously ruled by Gilgamesh.

ANSWER: Sumerian Civilization

<HX>

12. This quantity can be found via the equation momentum squared divided by two times the mass, and it is reduced by damping. For rotating objects, it is equal to the one-half the moment of inertia times the angular velocity squared, and a pendulum reaches its (*) maximum height when this quantity is zero, or when the potential energy is maximized. Equal to one-half m times v squared, for ten points, name this amount of energy stored in an object's motion.

ANSWER: Kinetic energy (prompt on energy)

<KT>

13. Lake Zaysan lies in the eastern part of this country, high in the Tarbagatai Mountains. Its most populous province has its capital at Shymkent. The Syr Darya has its mouth in this country, while in its southeast, the Ili River flows into Lake Balkhash. This country's most populous city lies on the (*) Esil, a tributary of the Irtysh. The Baikonur Cosmodrome lies in the south of this country, east of the Aral Sea. For ten points, name this second-largest former Soviet republic whose capital was Almaty but is now Astana.

ANSWER: Republic of Kazakhstan

<JD>

14. One of this man's novels tell the tale of Urania Cabral, who was raped by Dominican dictator Rafael Trujillo. Another novel by this author of *The Feast of the Goat* ends after a large battle in Canudos is won by the Brazilian military; that book is (*) *The War of the End of the World*. One of his novels is set in a military school in Lima, and another tells of Mario's love for the much older title character. For ten points, name this Peruvian author, whose works like *The Time of the Hero* and *Aunt Julia and the Scriptwriter* helped win him the 2010 Nobel Prize.

ANSWER: Mario Vargas Llosa

<MS>

15. One of this man's works, based on a libretto by Shpazhinsky, sees Nikita fall in love with Nastasia, who loves his son, Yuri. Another work by this composer of *The Enchantress* features a tamtam crash before the coda of the last movement, and its second movement, depicting a bridal march, uses the Ukrainian folk song "Spin, O My Spinner." In addition to his Symphony No. 2, (*) "Little Russian," this man famously used fireworks and a cannon in a piece commemorating Russia's defense of Moscow. For ten points, name this Russian composer of the *Sleeping Beauty Waltz* and *1812 Overture*.

ANSWER: Pyotr Illyich Tchaikovsky

<HX>

16. The main conflict of this book occurs when the imprisoned Gabelle sends a letter to Evrémonte, and many characters are known only as “Jacques”. After storming the Bastille, Monsieur (*) Defarge finds a letter which had been stored there by Dr. Manette, whose daughter Lucie marries the main character. For ten points, name this novel, which sees Sidney Carton take Charles Darnay’s place on the guillotine, a work by Charles Dickens.

ANSWER: A Tale of Two Cities

<MS>

17. One important point in this figure can be found by taking the isotomic conjugate of the Gergonne point; that point is the Nagel point. The Euler line connects the center of the nine-point circle, the (*) circumcenter, the orthocenter, and the centroid, and this figure's angles always add up to 180 degrees. Acute, obtuse, and right are varieties of, for ten points, what three-sided geometrical figure?

ANSWER: Triangle

<MS>

18. This politician announced the 100-Hour Plan, and was the main proponent of HR 106, a resolution to recognize the Armenian Genocide, a move which drew criticism from George W. Bush. This politician was preceded in her most famous role by (*) Dennis Hastert, and was the first female in U.S. history to be the House Minority Whip. For ten points, name this California Representative who was recently replaced by John Boehner as Speaker of the House.

ANSWER: Nancy Pelosi

<MS>

19. Plages are located within one layer of this astronomical body, and faculae form in the canyons near granules. Its surface temperature is 5,800 degrees Kelvin, and this is easily the most famous example of a Class G Main Sequence star. Layers of this star include the (*) chromosphere, photosphere, and corona, which is where its namesake flares occur. Lying 1 AU away from you right now, for ten points, this is what star, which our planet rotates around?

ANSWER: The Sun or Sol

<MS>

20. This man installed Kléber as leader of Egypt, and he reformed the Army of Italy. He was allowed to maintain some of his power after the Treaty of Fontainebleau, and he sold a lot of land to Robert Livingston. This man married Marie Louise after divorcing (*) Josephine, and his actions began the Hundred Days period. He lost to the Sixth Coalition at Liepzig, and this man raised funds by selling Thomas Jefferson the Louisiana Purchase before leading French forces to victory at Austerlitz. For ten points, name this French general and emperor, who returned from Elba only to be defeated at Waterloo.

Answer: Napoleon Bonaparte or Napoleon I

<CC>

BONUSES

1. Bonus: He was assassinated on January 30, 1948. For ten points each:

[10] Name this Indian, who led the Salt March and practiced non-violent resistance tactics to finally gain independence from the British.

ANSWER: Mohandas Karamchand Gandhi (Prompt on Bapu)

[10] Gandhi pioneered this technique of non-violence resistance. It was later utilized by Nelson Mandela and MLK, and an opera with this title was written by Philip Glass.

ANSWER: Satyagraha (prompt on Soul Force or anything else that sounds like a loose translation)

[10] This Hindu nationalist killed Gandhi. His brother Gopal was sent to prison for life.

ANSWER: Nathuram Godse

<KT>

2. Bonus: This war was instigated by the sinking of the USS *Maine* in Havana Harbor. For ten points each:

[10] Name this war that saw the Rough Riders capture San Juan Hill and the capture of Manila Bay.

ANSWER: Spanish-American War

[10] This man, whose flagship was the *Olympia*, led American forces to victory at Manila Bay. He is the only person to have attained the title of Admiral of the Navy.

ANSWER: George Dewey

[10] This letter, written by the Spanish minister of Cuba, insulted President McKinley as being weak. Its publication was one of the events that led to the Spanish-American War.

ANSWER: de Lome letter

<JD>

3. Bonus: Name some things that put the “fun” in “functions.” For ten points each:

[10] This function is equal to zero when its input is zero, and its derivative is equal to secant squared. It is also equivalent to sine divided by cosine.

ANSWER: Tangent

[10] This function is often written as an exclamation point, and is equal to the product of all natural numbers less than or equal to its input. Its generalization is the gamma function.

ANSWER: Factorial

[10] This function is often named for Euler and represented by a phi. It is equal to the number of integers less than a number which are coprime to it.

ANSWER: Euler’s Totient Function

<MS>

4. Bonus: He was awarded the Nobel Prize for Chemistry in 1908. For ten points each:

[10] Name this New-Zealand born physicist who proposed the concept of half-life and whose model of the atom was based on the result of an experiment involving shooting alpha particles at a sheet.

ANSWER: Ernest **Rutherford** (accept 1st Baron **Rutherford**)

[10] This aforementioned experiment led by Rutherford and his students would soon redefine the structure of the atom and supported a theory that the atom was mainly empty space.

ANSWER: **Gold-Foil** Experiment (accept **Geiger–Marsden** experiment)

[10] This Danish student of Rutherford won the Nobel Prize for Physics in 1922; his model of the atom explains the Rydberg formula.

ANSWER: Niels Henrik David **Bohr**

<KT>

5. Bonus: She is responsible for the flooding of the Nile every year. For ten points each:

[10] Name this Egyptian cow goddess of mining, music, and love.

ANSWER: **Hathor** (accept **Mehturt**, **Mehurt**, **Mehet-Weret**, and **Mehet-uret**)

[10] Hathor and this goddess compose the Milky Way in their bellies, but this sister of Geb is more well-known as the goddess of the sky.

ANSWER: **Nut** (accept **Nuit**, **Newet**, **nwt** and **Neuth**)

[10] This god got Hathor drunk to prevent her from wiping out the human race. He was worshipped primarily at Heliopolis.

ANSWER: **Ra**

<KT>

6. Bonus: This government succeeded the Third Republic and was led by Philippe Petain. For ten points each:

[10] Name this government of France during World War II, centered in a city of the same name.

ANSWER: **Vichy** France

[10] France's quick defeat at the outset of World War II was due to the ineffective location of this defensive line, which the Germans easily bypassed by flanking it through the Low Countries.

ANSWER: **Maginot** Line

[10] Charles de Gaulle led this group of men, which continued to fight against the Axis after France's surrender. It was headquartered at Algiers.

ANSWER: **Free France** Forces (accept **Free French**)

<JD>

7. Bonus: This work includes sections on various religions, such as Pietism, Methodism, and Calvinism. For ten points each:

[10] Name this work that argues that religion and hard work makes countries great.

ANSWER: *The **Protestant Ethic** and the Spirit of Capitalism*

[10] This German author of *The Protestant Ethic and the Spirit of Capitalism* examined other religions in *Ancient Judaism* and *The Religion of India*.

ANSWER: Karl Emil Maximilian "Max" **Weber**

[10] This other Weber work argues that the state has a "monopoly on the legitimate use of violence," and that leaders should not try to be saints.

ANSWER: **Politics as a Vocation**

<KT>

8. Bonus: He wrote an operetta based on a Voltaire work of the same title. for ten points each:

[10] This man was the music director of the New York Philharmonic and also gave numerous television lectures on classical music. His compositions include *Fancy Free*, *Candide*, and *West Side Story*.

ANSWER: Leonard **Bernstein**

[10] This contemporary of Bernstein was known for his radical ideas in music, such as the use of the prepared piano and water-filled conch shells. His compositions include *Imaginary Landscape No. 1*, *Etudes Australes*, and *I Ching*.

ANSWER: John Milton **Cage** Jr.

[10] This Cage work for any instrument or combination of instruments is perhaps his most famous. His 1951 visit to the anechoic chamber at Harvard University led to the realization that silence is impossible, inspiring this composition, in which every musician is instructed to "tacet."

ANSWER: **4'33"**

<HX>

9. Bonus: For ten points each, answer the following questions about hurricanes:

[10] This word of Chinese origin is the name given to hurricanes in the western Pacific Ocean. It is a type of tropical cyclone.

ANSWER: **Typhoon**

[10] Hurricanes are usually classified into this many categories. The first category consists of hurricanes with wind speeds from 74-95 mph, while its highest category consists of hurricanes with wind speeds over 155 mph.

ANSWER: **Five**

[10] Hurricanes are typically created in these regions, also known as the "equatorial calms," which consist of calm winds near the equator.

ANSWER: **Doldrums**

<JD>

10. Bonus: Name some Indian authors, for ten points each:

[10] This only Indian to win the Nobel Prize in Literature got Yeats to write the preface to his poetry collection *Gitanjali*.

ANSWER: Rabindranath **Tagore**

[10] This Indian modeled his *The Golden Gate* off of Pushkin's *Eugene Onegin*, but he is more famous for his obscenely long *A Suitable Boy*.

ANSWER: Vikram **Seth**

[10] This ancient Indian author is known as *Adi Kavi*, or First Poet, in honor of his compilation of the *Ramayana*.

ANSWER: **Valmiki**

<MS>

11. Bonus: It opens in The Year of our Ford, 632. For ten points each:

[10] Name this novel, which sees John the Savage engage in a long discussion with Mustapha Mond, and Helmholtz and Bernard exiled.

ANSWER: **Brave New World**

[10] *Brave New World* is a novel by this British author, who discussed mortality in the story of Hollywood millionaire Jo Stoyte, *After Many a Summer Dies the Swan*.

ANSWER: Aldous **Huxley**

[10] This first Huxley novel tells of a party at the title abode, which is owned by Henry Wimbush.

ANSWER: **Crome Yellow**

<MS>

12. Bonus: A man who was taking pictures of the resulting tsunami swept out to sea in North California. For ten points each:

[10] Name this event, in which a certain country was devastated by a certain natural phenomenon with a magnitude of 8.9 on March 11, 2011.

ANSWER: 2011 **Japanese Earthquake** (accept equivalents, accept **Sendai Earthquake**, but if teams don't give this answer, obviously don't reveal it to them, since it would give away the answer to part 2!)

[10] This Japanese city, capital of Myagi Prefecture, was near the epicenter of the earthquake, and was among the hardest-hit areas.

ANSWER: **Sendai**

[10] Lots of people freaked out because the earthquake damaged a few of these buildings, especially one in Fukushima. Previous issues with these buildings include those at Three Mile Island and Chernobyl.

ANSWER: **Nuclear Reactor** or **Nuclear Power Plant** (accept equivalents)

<JD>

13. Bonus: Answer the following about Hindu mythology, for ten points each

[10] This god rides a bull and he is known as the father of dance. He has three eyes, and is the husband of Parvati and father of Ganesh.

ANSWER: **Shiva** (also accept **Bolenath**, **Umapathi**, **Mahesvara**, **Trilokesaya**, or **Nataraja**)

[10] Garuda, the mount of Vishnu, is one of these animals. In Greco-Roman mythology, Zeus took the form of this animal to abduct Ganymede.

ANSWER: **Eagle** (Prompt on bird, do not accept any other kinds of birds)

[10] These five brothers form the core of the Mahabharata and were victorious over the Kauravas in the Battle of Kurukshetra (Koo-rook-shay-thrah). Their names were Dharamaraju, Bhima, Arjuna, Sahadeva, and Nakula, and they were all married to Draupadi.

ANSWER: **Pandavas**

<RU>

14. Bonus: This city is one of the most violent in the world, and was also dubbed “The City of the Future” due to its economic growth. For ten points each:

[10] Name this Mexican city that lies across a certain river from El Paso, Texas.

ANSWER: **Ciudad Juarez**

[10] Ciudad Juarez is the capital of this largest Mexican state. Its namesake desert lies in southern Arizona, New Mexico, and Texas.

ANSWER: **Chihuahua**

[10] Much of the Mexican border is defined by this river, which separates Ciudad Juarez and El Paso.

ANSWER: **Rio Grande** River

<JD>

15. Bonus: One extension of it states that J equals sigma times E . For ten points:

[10] What is this law, named after its formulator, which claims that voltage equals current times resistance?

ANSWER: **Ohm**’s Law

[10] When a circuit is run on alternating current instead of direct current, Ohm’s Law states the voltage equals current times this value, the complex analogue of resistance.

ANSWER: **Impedance**

[10] For his efforts, Ohm got the unit of resistance named after him. Meanwhile, the unit of current was named after this man.

ANSWER: Andre-Marie **Ampere** (prompt on **Amp**)

<MS>

16. Bonus: It consists of six stacked mastabas. For ten points each:

[10] Name this first Egyptian pyramid ever built, which is located in the Saqqara Necropolis.

ANSWER: Pyramid of **Djoser**

[10] This man designed the Pyramid of Djoser. He was a pretty smart guy, being an architect, engineer, and physician, and was deified after his death.

ANSWER: **Imhotep** or **Immutef**

[10] This other guy was found intact in his pyramid by Howard Carter. He was the son of Akhenaten, and was probably infected with malaria when he died at age 18.

ANSWER: King **Tut**ankhamun

<MS>

17. Bonus: It introduced the word robot. For ten points each:

[10] Name this play, in which Alquist is the only human survivor of a robot uprising and Helena burns the formula to create them.

ANSWER: **R.U.R.** or **Rossum's Universal Robots**

[10] *R.U.R.* is a work by this author, whose play *The Makropulos Affair* was turned into an opera by Leos Janacek.

ANSWER: Karel **Čapek** (pronounced CHA-peck)

[10] This other Čapek work is eerily similar to *R.U.R.* It sees the title sea-dwellers enslaved by humans, but destroy much of the Earth's landmass so they have space to grow. When the battle is complete, humanity will be enslaved, rebel, and repeat the process.

ANSWER: **War with the Newts**

<MS>

18. Bonus: It was founded by Chad Hurley, Steve Chen, and Jawed Karim, and its current CEO is Salar Kamangar. For ten points each:

[10] Name this video-sharing website that is headquartered in San Bruno, California and was launched in February 2005.

ANSWER: **YouTube**

[10] This command is YouTube's slogan, and YouTube's countless videos are a testament to its simple appeal.

ANSWER: **Broadcast Yourself**

[10] This video ranked first in Time Magazine's list of Youtube's 50 greatest viral videos and formerly held the title of YouTube's most-watched video. It sees one of Harry's body parts stuck in his little brother's mouth.

ANSWER: **Charlie Bit My Finger**

<JD>

19. Bonus: It was originally deemed inefficient due to the denaturing of eukaryotic polymerases during it. for ten points each:

[10] Name this process in which a segment of DNA can be replicated into millions of copies in hours due to repeated cycles of doubling.

Answer: Polymerase Chain Reaction

[10] PCR requires these cool down periods, in which primers can bond to daughter strands.

Answer: Annealing Period

[10] Another offshoot of PCR is this type, in which mRNA is used to determine gene expression.

Answer: Reverse Transcriptase-Polymerase Chain Reaction

<AZ>

20. Bonus: Many thought his *The Age of Bronze* was surmoulage. For ten points each:

[10] Name this French sculptor of *The Gates of Hell*, which contains such works as *The Three Shades* and *The Kiss*.

ANSWER: François-Auguste-René Rodin

[10] Rodin may perhaps be most famous for this sculpture of a man with his hand under his chin.

ANSWER: *The* Thinker [accept *Le* Penseur]

[10] This other Rodin sculpture depicts the six leaders of a certain city surrendering to Edward III.

ANSWER: *The* Burghers of Calais

<BZ>