

**LADUE INVITATIONAL
SPRING TOURNAMENT 2011**

Round 7

TOSS-UPS

1. This empire's Djan-Tan-Nor-Woro was the military arm of its ruling Gbara, and this nation's leader Abubakari was lost at sea. This empire was founded at the Battle of Kirina with Sumanguru's defeat by Sundiata, and its most famous ruler's hajj was so lavish that it depressed the price of (*) gold in Cairo for years. This empire built the Sankore University to house its many scholars in Timbuktu, and was famously ruled by Mansa Musa. For ten points, name this West African trading empire, the namesake of a modern nation with capital at Bamako.

ANSWER: Mali Empire (also accept Mandingo Empire or Manden Kurufa)

<MS>

2. These numbers can be found recursively with the formula $f(n)=2f(n-1)-f(n-2)+2$ ("f of n equals 2 times f of n minus 1, minus f of n minus 2, plus 2"). An integer cannot be written as the sum of two of these numbers if it is congruent to 3 modulo 4, and Lagrange proved that any number can be written as a (*) sum of four of these. The n th one of these numbers is equal to the sum of the first n odd numbers, and the sum of two consecutive triangular numbers is equal to one of these. For ten points, what is this type of number, equal to a number times itself, examples of which include 1, 4, 9, and 16.

ANSWER: Perfect Square Number (accept A Number to the power of 2 or equivalents)

<MS>

3. This particle was first theorized by Richard Laming, and it is the only charged first-generation lepton. One property of this particle was measured by trying to suspend drops of oil in an electric field; that property is the charge, and was first measured by Fletcher and (*) Millikan. These particles are produced in beta minus decay, and this particle's discovery by J.J. Thomson led him to theorize the "plum pudding model." The antiparticle of the positron, for ten points, what is this subatomic particle, which has the opposite charge as a proton?

ANSWER: Electron

<MS>

4. One work by this man advocates the medicinal use of tar-water, while another opens with one of the title characters describing the beauty he sees in nature. That work is subtitled "In Opposition to Skeptics and Atheists", and asserts that all things perceived exist only when they are perceived by a mind; that formulation of idealism summarized in this philosopher's *A Treatise Concerning the Principles of Human Knowledge*. The author of (*) *Three Dialogues Between Hylas and Philonous*, for ten points, name this Anglo-Irish thinker who claimed "to be is to be perceived", the namesake of a California town.

ANSWER: George Berkeley

<HX>

5. This author wrote a work in which a man is stranded on Lemnos after a foot wound received from a snake bite festers and smells really bad. In addition to that play about the man who killed Paris, *Philoctetes*, this man wrote a play in which Creon's decree that Polyneices' body may not be (*) buried causes the death of his son Haemon and the title character. Another of his plays ends with the main character stabbing his eyes out and his wife and mother Jocasta hanging herself. The creator of the *Theban Plays*, for ten points, name this ancient Greek tragedian, author of *Antigone* and *Oedipus Rex*.

ANSWER: Sophocles

<MS>

6. In this painting, a small girl in white walks with her mother, while nearby, a man in a top hat sits holding a cane. On the left, a man smokes a pipe while reclining, and a dog sniffs the ground behind him, while behind him a girl can be seen playing with flowers. A (*) rowing team can be seen in the background, and a woman in the right foreground holds a dog and monkey on a leash. For ten points, name this pointillist work by Georges Seurat depicting a crowd of people spending a day on an island in the Seine.

ANSWER: A *Sunday Afternoon on the Island of La Grande Jatte* accept "Isle" for "Island" or *Un Dimanche après-midi à l'île de la Grande Jatte*)

<CC>

7. In this novel, the protagonist claims that the first of her ancestors to come to America was a fur-trader named Simon, while later on the protagonist's father says that the NRA was killed by nine old men. In one incident in this novel, Miss Maudie's house catches on fire, while in another, a man shoots and kills a rabid dog. In her school Halloween pageant, the protagonist dresses up as a (*) ham, which hinders her from running away from an attacker on the way back home. That attacker, Bob Ewell, succeeds in charging Tom Robinson of rape even though Atticus Finch's evidence proves him to be lying. For ten points, name this coming-of-age novel set in Maycomb, Alabama, in which Boo Radley befriends Scout Finch, a work of Harper Lee.

ANSWER: *To Kill a Mockingbird*

<JD>

8. Shang Yang was an important figure from the founding of this dynasty, but was executed after a political dispute with King Wu. This dynasty burned all its books and buried alive all its scholars, and its most famous emperor was advised by the Legalist Li Si, but wound up dying while seeking (*) immortality. Succeeded by the Han, for ten points, what is this dynasty, which ended the Warring States Period, built the Terracotta Army, and started construction of the Great Wall under the leadership of Shi Huangdi?

ANSWER: Qin Dynasty

<MS>

9. This man greatly admires Joseph Stalin because he believes they both have powerful genitals, and, though initially pagan, he converts his village to Christianity after attending a Pentecostal church service. He is strongly against women's rights, saying that they have "brain the size of squirrel," and he enjoys ping pong, sunbathing in his tankini, spitting, and taking pictures of women while they "make toilet." His sister is (*) "number 4 prostitute in [his home country]," and he falls in love with Pamela Anderson after watching an episode of *Baywatch*, travelling across the United States in an ice cream truck to meet her. For ten points, name this fictional character who made a movie to "make benefit glorious nation of Kazakhstan," played by Sascha Baron Cohen.

ANSWER: **Borat** Sagdiyev [prompt on "Sagdiyev"]

<JD>

10. Sir Rudolph Peters found that pigeons with an insufficient intake of this compound displayed opisthotonos, a behavior of head retraction characteristic of this compound's deficiency. One of this compound's derivatives is a cofactor required for the oxydative decarboxylation of pyruvate, which then forms Acetyl-Co-A, while another, TPP, is a coenzyme in the catabolism of sugars and amino acids. A deficiency of this compound in mammals results in (*) beriberi, and it was first named aneurin due to the detrimental neurological effects it causes when lacking in the diet. A pyrimidine and a thiazole ring form, for ten points, what water-soluble vitamin, also known as thiamine?

ANSWER: Vitamin **B1** (accept **thiamine** before mentioned)

<HX>

HALFTIME

11. This man's claims to continental Angevin lands were recognized by Phillip II with the Treaty of Le Goulet in 1200. Although he was the youngest of five, this man's path to power was made easier following the failed rebellions of his older brothers Henry and Geoffrey. Later, this man unsuccessfully rebelled against the administration left behind by his brother, who was fighting in the (*) Third Crusade. That brother was Richard the Lionheart, whose death in 1189 led to this man's kingship, the end of which saw a baronial uprising. For ten points, name this English king who was forced to sign the Magna Carta.

ANSWER: King **John** of England

<HX>

12. This author wrote a short story about a man who wants to cut out peoples' eyes to give to his girlfriend. He included that story, "The Blue Bouquet" in his collection *Eagle or Sun?*, and discussed what he thought poetry should be like in *The Bow and The Lyre*. This man wrote a group of nine essays including "The Conquest to Colonialism" and (*) "The Day of the Dead," and he also wrote a poem based on the Aztec calendar. The winner of the 1990 Nobel Prize, for ten points, name this Mexican author of *The Labyrinth of Solitude* and *The Sun Stone*.

ANSWER: Octavio Paz

<MS>

13. This country's oil reserves, which provide a vast majority of its revenue, are expected to be depleted by 2017, and in 2009, a group of nine tourists was kidnapped in this country, which was also where former German Secretary of State Jürgen Chrobog was kidnapped in 2005. This country's president has held office since 1999, but, following the initial stages of the Tunisian Revolution in 2011, protests in (*) Aden called for him to resign. Ali Abdullah Saleh announced he would not run for reelection as, for ten points, the president of which Middle Eastern country with capital at Sana'a, bordered by Saudi Arabia to the north and Oman to the east?

ANSWER: Yemen

<HX>

14. In 2000, the Hallé Orchestra commissioned Colin Matthews to add an eighth movement to this piece, which was dedicated to the original composer's daughter, Imogen. Its opening movement includes a rhythmic ostinato in 5/4 time, and wordless choir is featured in its seventh movement, which is subtitled (*) "the mystic." Clifford Bax, who introduced the composer to astrology, inspired, for ten points, which orchestral suite that includes sections subtitled "the winged messenger" and "the bringer of war," the most famous work of Gustav Holst?

ANSWER: The Planets Suite

<HX>

15. The exact value for the unit measuring this quantity is defined based on the Josephson Effect, and this quantity squared is equal to power times resistance. This quantity is equal to electric field strength times distance, and Wheatstone Bridges work because this quantity is the same across all (*) loops in a parallel circuit. Kirchoff's Loop Rule claims that this quantity sums to zero around a circuit, which makes sense because any two points connected by a wire have the same value of this. For ten points, what is this term for the potential difference between two points, which is often used to measure the strength of batteries?

ANSWER: Voltage

<MS>

16. A series of man-made and natural lakes connected by rivers run down the east coast of this country and is called the *Canal des Pangalanes*, and this country's Tsaratana Massif in the north is home to its highest peak, Maromokotro. This country is home to the Mananjary and (*) Bemarivo Rivers, and erosion of the central highlands of this country led to its nickname, "The Red Island". Antananarivo is the capital of, for ten points, what island nation located off the southeastern coast of Africa, which is not actually home to the dancing lemurs?

ANSWER: Madagascar

<HX>

17. One work by this man argued that it is not necessary to know how much a person valued something, and stated that "good" cannot be measured, while another of his works distinguishes R-type and S-type people. This author of *Manual of Political Economy* and *Circulation of the Elites* proposed the concept of "indifference curves", and is the namesake of a chart containing both (*) lines and bars. However, this man is better known for his namesake "principle", which came from an observation that 80% of the land in Italy was owned by 20% of the population. For ten points, name this Italian sociologist, economist, and philosopher, whose "optimality" describes a state where no one can be made better off without making someone else worse off.

ANSWER: Vilfredo Pareto

<HX>

18. When these entities are found in the same series, they are called isomorphs, and they have fourteen basic lattice arrangements of atoms in three dimensions, called the "Bravais lattices". One way of classifying these entities uses adjectives like adamantine or vitreous to describe the way light is reflected off of their surfaces, and another involves rubbing one of these entities on an (*) unglazed porcelain plate. Luster and streak, along with crystal structure and cleavage, can be used to describe, for ten points, what naturally occurring solids with highly ordered atomic structure, members of which are ranked on the Mohs Hardness Scale and include calcite and quartz?

ANSWER: Minerals (accept crystal before "unglazed," prompt afterwards, do NOT accept or prompt on "rock")

<HX>

19. One myth holds that this figure fathered Oenopion with Ariadne, and he also transformed pirates into dolphins. This figure caused Pentheus to be killed by his own mother, and after a certain man found Silenus, this god gave King (*) Midas the power to turn things into gold. This god's mother died when she looked at Zeus in "all his glory," and this god's followers often got drunk and had crazy parties. The son of Semele, for ten points, name this Greco-Roman god of wine, who was sometimes called Bacchus.

ANSWER: Dionysus or Bacchus (don't accept Bacchus after it's mentioned)

<MS>

20. In one of this man's novels, Ravelston publishes much of the work of the protagonist, who finally convinces his wife to buy the title plant. In addition to writing about Gordon Comstock in *Keep the Aspidistra Flying*, this man drew on his experiences as a police officer to write *Burmese Days* and (*) *Shooting an Elephant*. In one of his more famous novels, a successful coup of Mr. Jones results in Snowball and Napoleon taking the reins of power, and Winston Smith attempts to resist Big Brother in another of his novels. For ten points, who is this author of *Animal Farm* and *1984*?

ANSWER: George Orwell or Eric Blair

<MS>

BONUSES

1. Bonus: It was also called Operation Hummingbird. For ten points each:

[10] Name this event taking place in the summer of 1934, where the Nazis executed many of their enemies and political rivals, including Ernst Röhm.

ANSWER: **Night of the Long Knives** or **Nacht der Langen Messer**

[10] This man organized the Night of the Long Knives soon after becoming Chancellor of Germany a year earlier. He committed suicide in 1945 after losing WWII.

ANSWER: Adolf **Hitler**

[10] Along with Erich Ludendorff, Hitler earlier had tried to lead this failed 1923 uprising in Munich. It ended with his arrest, and while in jail, he published *Mein Kampf*.

ANSWER: **Beer Hall Putsch**

<MS>

2. Bonus: It is based on the story of the *Essex*, which also was sunk at sea by a whale. For ten points each:

[10] Identify this novel, in which Ishmael helps hunt for the title creature, the nemesis of Captain Ahab.

ANSWER: **Moby Dick**

[10] *Moby Dick* is a work by this author of *Typee* and *Billy Budd*.

ANSWER: Herman **Melville**

[10] Melville also wrote this short story, first published in *The Piazza Tales*, in which the title law clerk would “prefer not to” do work.

ANSWER: “**Bartleby the Scrivener**”

<MS>

3. Bonus: For ten points each, name these types of administrative divisions:

[10] Canada consists of ten of these areas, plus three territories, and China has the largest one of these in the world.

ANSWER: **Province**

[10] Russia consists of 83 subjects, of which 46 are called these. They include Volgograd and Moscow, and this term is used in a lot of other Slavic countries.

ANSWER: **Oblast**

[10] Switzerland is divided up into 26 of these divisions, the largest of which is Graubünden.

ANSWER: **Canton**

<JD>

4. Bonus: Osmium has the largest value of this of any known substance. For ten points each:

[10] What is this quantity, equal to mass divided by volume?

ANSWER: **Density**

[10] This is the second-densest substance known to man. Like Osmium, it is also an element, lying just to the right of it on the periodic table. A large amount of this element in a crater near Mexico suggest the impact of a meteor.

ANSWER: **Iridium**

[10] Liquids exhibit a buoyant force proportional to their density, a fact realized by this man. He apocryphally ran naked through the streets, yelling “Eureka!” after his discovery.

ANSWER: **Archimedes** of Syracuse

<MS>

5. Bonus: One man in this painting tears his hair out in anger. For ten points each:

[10] Name this painting showing the aftermath of a French shipwreck.

ANSWER: **The Raft of the Medusa** (accept **Le Radeau de la Méduse**)

[10] This French Romantic painter of *The Raft of the Medusa* also painted *Portrait of a Kleptomaniac*.

ANSWER: Théodore **Géricault**

[10] This other Romantic painter depicted the *Chalk Cliffs of Rugen*, but is more famous for his *Wanderer above the Sea of Fog*.

ANSWER: Caspar David **Friedrich**

<KT>

6. Bonus: We can all count, but can we count efficiently? Name some concepts from combinatorics, for ten points each:

[10] This function is the number of ways to pick m objects from a total of n possibilities and arrange them in a specific order. It is contrasted with combinations, in which the order doesn't matter.

ANSWER: **Permutations**

[10] This is what its called when one divides a set into multiple collectively exhaustive and mutually exclusive parts.

ANSWER: **Partition**

[10] Combinations can be found by drawing this diagram, named for a French mathematician. It has a 1 in the top row, followed by two 1's in the next, followed by 1, 2, 1 in the third, and each number can be found by adding the two above it.

ANSWER: **Pascal**'s Triangle

<MS>

7. Bonus: He conquered the Nanda dynasty, solidifying his power. For ten points each:

[10] Name this man who founded the first true empire in India. Legend has it that he met with Alexander the Great in his formative years.

ANSWER: **Chandragupta** Maurya (don't reveal Maurya if they don't say it!)

[10] Chandragupta founded this empire with capital at Pataliputra that ruled ancient India from 321 to 185 BC. It should not be confused with the Gupta Empire, which sprung up a few centuries later.

ANSWER: **Mauryan** Empire

[10] The Mauryan Empire reached its largest extent under this ruler, its third, the grandson of Chandragupta.

ANSWER: **Ashoka** the Great (accept **Asoka** Bindusara Maurya or **Ashoka**vardhan Maurya)

<HX>

8. Bonus: The protagonist of this work deserts the Bulgarian army during a battle with the king of Abares. For ten points each:

[10] Name this novel in which the title character travels to El Dorado after he and his tutor Pangloss survive an earthquake in Lisbon.

ANSWER: **Candide**

[10] This French Enlightenment philosopher wrote *Candide*, as well as over 20,000 letters.

ANSWER: **Voltaire** or Francois-Marie **Arouet**

[10] Candide is banished from the castle of Baron Thunder-ten-tronckh after he was caught kissing this character. Candide later marries this character after rescuing her from Constantinople.

ANSWER: **Cunegonde**

<JD>

9. Bonus: The underworld is generally considered a bad place to be. Identify some stuff about the Greek version, for ten points each:

[10] This man ventured into the underworld to rescue his wife, Eurydice. His music persuaded Hades to let her return to the living world, but under the condition that he could not look back at her until they left the underworld.

ANSWER: **Orpheus**

[10] This daughter of Demeter was abducted by Hades and ate three pomegranate seeds while in the underworld, forcing her to return there for three months each year.

ANSWER: **Persephone**

[10] Though the Styx is the most famous river in the underworld, equally important is this river of fire which runs parallel to the Styx.

ANSWER: **Phlegethon**

<HX>

10. Bonus: They include the lowering of vapor pressure and the elevation of boiling point. For ten points each:

[10] Name these properties of a solution that depend not on the identity of the molecules, but on the number of molecules.

ANSWER: **Colligative** properties

[10] This colligative property occurs when a compound is added to a liquid. It explains why salt water remains liquid at temperatures below 0°C.

ANSWER: **Freezing-point depression** (prompt on partial answer)

[10] This other colligative property is directly proportional to its absolute temperature, and can be calculated by a formula proposed by Jacobus Henricus van't Hoff. It is the force per unit area needed to prevent the inward flow of water across a semipermeable membrane.

ANSWER: **Osmotic** pressure

<HX>

11. Bonus: It is considered one of the first works of modern philosophy, and is sometimes compared to the *Life of Castruccio Castracani*, by the same author. For ten points each:

[10] Name this political treatise which advises the title ruler to be both a fox and a lion. It also includes the ideas that it is better to be feared than loved and that the end justifies the means.

ANSWER: **The Prince** (accept **Il Principe**)

[10] *The Prince* is by this Italian philosopher and author of *The Mandrake* and some *Discourses on Livy*.

ANSWER: Niccolò **Machiavelli**

[10] Many hypothesize that *The Prince* was a sardonic commentary on the rule of the Medicis, which is why Machiavelli used this tyrannical, illegitimate son of Pope Alexander VI as an example of “ideal leader”.

ANSWER: **Cesare Borgia**

<HX>

12. Bonus: In this work, Mr. Pilkings decides to interfere with everything. For ten points each:

[10] Name this play, in which the British prevent Elesin from committing ritual suicide, causing Olunde to do so in his place.

ANSWER: **Death and the King's Horseman**

[10] This author of *Requiem for a Futurologist* and *The Lion and the Jewel* wrote *Death and the King's Horseman*.

ANSWER: Wole **Soyinka**

[10] Soyinka was temporarily arrested after writing pro-Biafra works, a breakaway republic from this home country of his. This country was also the home to writers Ken Saro-Wiwa and Chinua Achebe.

ANSWER: **Nigeria**

<MS>

13. Bonus: This work was used in Kubrick's film *2001: A Space Odyssey*. For ten points each:

[10] Name this tone poem based on a treatise of the same name by Nietzsche. Its nine sections include ones titled "Of the Joys and Passions", "Of Science", and "Song of the Night Wanderer".

ANSWER: **Thus Spoke Zarathustra** (also accept: **Thus Spake Zarathustra** and **Also Sprach Zarathustra**)

[10] This composer of *Thus Spoke Zarathustra* also wrote *An Alpine Symphony*, *Metamorphosen*, and *Don Quixote* and used some dissonant chords in *Elektra*.

ANSWER: **Richard Strauss** (prompt on **Strauss**)

[10] This opera in one act by Strauss sees the title figure passionately kiss the severed head of John the Baptist and includes a famous *Dance of the Seven Veils*.

ANSWER: **Salome**

<HX>

14. Bonus: This group helped Al Smith get the Democratic presidential nomination in 1928. For ten points each:

[10] Name this Democratic political machine that controlled New York City and helped immigrants rise up in politics from the 1790's to the 1960's.

ANSWER: **Tammany Hall**

[10] This most infamous figure of Tammany Hall came to power in 1863 and practiced graft until he got busted in 1871.

ANSWER: William M "Boss" **Tweed**

[10] This political cartoonist for *Harper's Weekly* exposed Tweed's political corruption, leading to Tweed's arrest. He famously depicted Tammany Hall as a tiger.

ANSWER: Thomas **Nast**

<JD>

15. Bonus: The outer layer of it is called the visceral pericardium. For ten points each:

[10] Name this organ that pumps blood throughout the human body.

ANSWER: **Heart**

[10] Each of these two chambers of a human heart is the area where blood enters the heart. The blood then travels onward through the bi or tricuspid valves.

ANSWER: **Atrium** (accept **atria**)

[10] This innermost layer of tissue lines the chambers of the hearts and the myocardium.

ANSWER: **Endocardium**

<KT>

16. Bonus: This sect's origins are often traced to the Flower Sermon. For ten points each:

[10] Name this Buddhist sect, which focuses on meditation and thinking about strange-sounding statements.

ANSWER: Zen Buddhism (or Chan)

[10] This is the name for those riddles Zen Buddhists think about, the most famous example of which is "What is the sound of one hand clapping?"

ANSWER: Koans (or Gong'an)

[10] Zen Buddhism is a subset of this major branch of Buddhism. Meaning "Great Vehicle", it is contrasted with Theravada Buddhism.

ANSWER: Mahayana Buddhism

<MS>

17. Bonus: The first one of these conflicts was known as the Ohana War, during which British rule in the Transvaal was successfully rebelled against. For ten points each:

[10] Name these two wars fought between the British Empire and two namesake South African republics.

ANSWER: Boer Wars

[10] The Second Boer War ended after the signing of this treaty, named after a town in the Transvaal.

ANSWER: Vereeniging

[10] The British also had problems with this African nation on their northern border, who reached their peak under the leader Shaka.

ANSWER: Zulu Kingdom or Zululand

<HX>

18. Bonus: Bird's-foot type of these entities form when rivers do not avulse often enough, whereas alluvial fan types of these more closely approximates the namesake triangular shape. For ten points each:

[10] Name this land-form found at the mouth of a river, examples of which include one on the Nile River and one on the Mississippi river.

ANSWER: River delta

[10] These landforms are similar to deltas, and may develop into deltas as more sediment builds up. They are transition zones between river environments and ocean environments, exemplified by the Chesapeake Bay and Tampa Bay.

ANSWER: Estuaries

[10] These bodies of water are found in flat areas and can be slow-moving rivers or streams or wetlands. Louisiana is the location of many of these marshy lakes.

ANSWER: Bayous

<HX>

19. Bonus: His *The Silmarillion* was published posthumously. For ten points each:

[10] Name this author, who is better known for a series in which Frodo tries to destroy a ring and in which Gandalf doesn't actually die.

ANSWER: J.R.R. **Tolkien**

[10] This friend of Tolkien wrote such works as *The Screwtape Letters* and *The Space Trilogy*. His religion played a major role in his works, such as *Mere Christianity*.

ANSWER: C.S. **Lewis**

[10] Tolkien and Lewis were among the more notable members of the literary discussion group "The Inklings" who regularly met at this English university, the rival college of Cambridge.

ANSWER: University of **Oxford**

<MS>

20. Bonus: The New York Yankees are known for their 27 World Series Championships, but credit should go to the players. For ten points each,

[10] Name this current captain and shortstop of the New York Yankees who was a member of the 1998, 1999, and 2000 World Series championship teams.

Answer: Derek Sanderson **Jeter**

[10] Nicknamed "The Iron Horse," this Yankees first baseman racked up a 2,310 consecutive games streak and played alongside Babe Ruth in the 1927 World Series.

Answer: Henry Louis **Gehrig**

[10] This Yankees catcher won a league record ten World Series championships and swears he tagged out Jackie Robinson when he stole home base in Game 1 of the 1955 World Series.

Answer: Lawrence Peter "Yogi" **Berra**

<EnzeC>