

LADUE INVITATIONAL SPRING TOURNAMENT 2012

Round 4

TOSS-UPS

1. A scholar in this work is awarded a sheep after demonstrating that its wool was red by A plus B, minus C, divided by Z. This work sees Don Issachar thrown on a dung pile after he is killed by the title character, who escapes the cannibalistic Biglugs with his valet, Cacambo. One character in this work, a daughter of Pope Urban X, had a buttock cut off to feed some starving men, while another character is hanged after an (*) earthquake in Lisbon. The title character of this work is banished from the castle of the Baron Thunder-ten-Tronckh after he kisses Cunégonde, and his mentor believes that the current world is the “best of all possible worlds.” For ten points, name this satirical novel whose characters include the optimistic Pangloss, written by Voltaire.

ANSWER: Candide, ou l'Optimisme (or Candide: or, Optimism)

<HX>

2. An image of this figure swallowing someone else is carved on Thorwald's Cross, and the river Van was created from his saliva. He managed to break Laeding and Dromi before the dwarves made an object from things like the roots of a mountain and the footsteps of a cat. This son of the giantess Angrboda fathered Skoll and Hati, two children who will eventually (*) eat the Sun and Moon. This creature's mouth is ripped open with a leather shoe by Vidar for killing Odin at Ragnarok, and he bit off the right hand of Tyr after being unable to break the chain Gleipnir. For ten points, name this son of Loki, a monstrous wolf in Norse mythology.

ANSWER: Fenrir (accept Fenrisulfr, the Fenris wolf, Hroovitr, or Vanagandr)

<BZ>

3. The logistics of this event were administered by Bayard Rustin, and James Farmer and Roy Wilkins were other leaders of this event. An address by John Lewis at this event criticized the Kennedy administration, and Malcolm X condemned this event in his “Message to the Grass Roots” speech, calling it a circus that lost its militancy. The most famous speech given at this event criticized America for defaulting on a (*) promissory note and claims that “[they] will not be satisfied until justice rolls down like waters and righteousness like a mighty stream.” For ten points, identify this 1963 rally for civil rights that saw Martin Luther King Jr. present his “I Have a Dream” speech.

ANSWER: March on Washington for Jobs and Freedom (prompt generously, on things like “Martin Luther King giving the I Have a Dream speech”)

<EnzeC>

4. The electron dipole moment of this particle is at most three times ten to the negative 26th, and would violate CPT-symmetry if it is non-zero. This particle has a half-life of 881 seconds, and can break up into a proton, an electron and an electron antineutrino via beta decay. This particle is composed of one (*) up and two down quarks, and nuclear fission is initiated by the bombardment of this particle. The number of this particle dictates what isotope an atom is, and they have mass roughly equal to that of a proton. James Chadwick discovered, for ten points, what particle found in the nucleus, which, as its name suggests, has a net charge of zero?

ANSWER: neutrons

<MS>

5. In one work with this name in the title, the protagonist's companions take “evasive maneuvers” to avoid Narshlogs, and a goat-seal sings to the title character before he walks through The Door to help make a snowman. That work is a sequel to one in which a character with this name becomes covered with splinters after his blue and pink friends get directions from a magical (*) Liopleurodon. Another character of this name is told “that really hurt!” in a British accent after chewing on his brother Harry. One character of this name's kidney is stolen after a trip to Candy Mountain. For ten points, give this name shared by two characters in popular Youtube videos, such as a unicorn and a child who “Bit My Finger.”

ANSWER: Charlie (accept also Charlie the Unicorn 3 or Charlie Bit My Finger)

<MS>

6. This state's Chichagof Island and Prince of Wales Island are part of the Alexander Archipelago located off its southeastern coast, and this state also controls St. Lawrence Island. The Unorganized Borough covers more than half of this state. This state's city of Barrow is located on the Beaufort Sea, and this state contains the Brooks and Wrangell mountain ranges. This state's city of (*) Nome lies on Norton Sound, and an oil pipeline connects Prudhoe Bay to Valdez. This state contains Kodiak Island, and the islands Attu and Kiska, which were invaded during World War II, are part of its Aleutian Islands. Its cities include Fairbanks, Anchorage, and its capital, Juneau. For ten points, name this northernmost and largest US state.

ANSWER: Alaska

<JD>

7. In one work titled after this man, Mercury gives Robert Morris a bag of gold, Minerva stands beside an electric generator, and Ceres sits on a McCormick reaper. In that work, this title figure sits enthroned above a depiction of Freedom wearing a red, white, and blue helmet. Constantino Brumidi painted a fresco in the Capitol about this man's (*) Apotheosis, and a painting of him was defaced when a picture of the 9/11 attacks was glued to it. In that painting of this figure, a man in green kicks aside a chunk of ice, while many boats full of horses and Revolutionary soldiers row onward in the background. For ten points, identify this man whom Emanuel Leutze painted *Crossing the Delaware* on his way to the Battle of Trenton.

ANSWER: George Washington

<MS>

8. This war's naval battles of Kinburn and Sinope saw some of the first uses of ironclad warships. This war ended not long after the Omar Pasha led the Siege of Kars, and it began with Allied victories at Alma and Inkerman. French forces then trapped the Black Sea fleet during the Siege of (*) Sevastopol. The "Lady with the Lamp," Florence Nightingale, was a nurse in this war, which saw a disastrous cavalry charge at the Battle of Balaclava. For ten points, identify this major European war which was ended by the 1856 Treaty of Paris and was named after the Ukrainian peninsula on which most of the fighting occurred.

ANSWER: Crimean War

<MS>

9. This structure does not function correctly in those with Stargardt disease, and certain cells in the capillaries of this structure can cause Scheerer's phenomenon. Müller glial cells found in this structure can dedifferentiate into multipotent progenitor cells, and Tay-Sachs disease is often diagnosed by a red spot on it. This structure receives oxygen from the choroid coat, which separates it from the (*) sclera. This structure's most sensitive region is the fovea, which is located at the center of its macula. Vitamin A is necessary for the function of this structure, which has a "blind spot" where it connects to the optical nerve. Rods and cones are found in, for ten points, which inner layer of the eye that sends optical signals to the brain?

ANSWER: retina (accept macula and fovea until mention; prompt on eye before mentioned)

<HX>

10. In one of this author's works, a man kills McEachern with a chair after he calls Bobbie a harlot, while in another work, the title character murders Homer Barron with arsenic and then sleeps next to his corpse. This author of "A (*) Rose for Emily" also wrote a novel in which a character looking for Lucas Burch meets Byron Bunch, and that work about Lena Grove sees Joanna Burden murdered, possibly by Joe Christmas. Another of his works tells the tale of Quentin and Benjy Compson and is set in Yoknapatawpha County. For ten points, name this American author of *Light in August* and *The Sound and the Fury*.

ANSWER: William Cuthbert Faulkner

<MP>

HALFTIME

11. This number is the larger of the two perfect powers mentioned in the Catalan Conjecture. According to the k equals three case of Waring's Problem, every integer can be written as a sum of at most this many cubes. Though it's not three, the difference between a number and a rearrangement of its digits will always be divisible by this number, and a given number is divisible by this number if repeatedly summing its digits eventually yields this number. This is the smallest number with (*) three odd factors, a consequence of it being the square of an odd prime number. For ten points, identify this number equal to three squared.

ANSWER: nine

<MS>

12. Garnierite is a common rock containing this element, and a technique for extracting it involves reacting this element's oxide with a mixture of carbon monoxide and hydrogen gas to form its tetracarbonyl. This element's isotope-62 has the highest binding energy per nucleon of any isotope for any element, and one alloy of this element is the primary constituent in a hydrogenation catalyst named for Raney which is used in the (*) Mond process. This element forms austenitic stainless steel when combined with chromium in an iron alloy, and it's commonly found with cadmium or its hydride in rechargeable batteries. For ten points, name this element with atomic number 28 and chemical symbol Ni.

ANSWER: Nickel (accept Ni before read)

<EnzeC>

13. Like Ernst Jentsch, this man analyzed E.T.A. Hoffman's "The Sandman", to formulate his concept of "The Uncanny," and argues in another work that the title character must have been a follower of Akhenaten. In addition to *Moses and Monotheism*, he described the "oceanic" feeling in a work that analyzes the tensions between individuals and their environment; that work is (*) *Civilization and Its Discontents*. This man described the "death drive" and the struggle between Eros and Thanatos in *Beyond the Pleasure Principle*, while his most famous work separates the id, ego, and superego. For ten points, name this Austrian psychologist that founded psychoanalysis and authored *The Interpretation of Dreams*.

ANSWER: Sigmund Schlomo Freud

<KT>

14. In one of this man's work, an Irishman explains to the author that he received the title scar after betraying John Vincent Moon, while in another, the title character is able to give the exact time of day after being thrown from a horse. In addition to "The Shape of the Sword" and (*) "Funes the Memorious," which are found in his collection *Artifices*, this man wrote a story about the title group of hexagonal rooms, which contains every book ever written, and another story about a point from which one can see everything in the universe. For ten points, identify this Argentine author whose *Ficciones* includes stories like "The Library of Babel," "The Aleph," and "The Garden of Forking Paths."

ANSWER: Jorge Francisco Isidoro Luis Borges Acevedo

<MS>

15. During this event, William Hodson killed three princes at the Bloody Gate, and one cause of this event was the annexation of Awadh due to Lord Dalhousie's "Doctrine of Lapse." This conflict saw battles at Kanpur and Jhansi, and during this conflict Henry Havelock and Colin Campbell managed to relieve the siege on Lucknow, where Henry Lawrence had previously died. One side in this conflict was aided by Bahadur Shah II, the last (*) Mughal emperor. Another cause of this event was the use of ammunition lubricated with pork and beef fat, which insulted the native Muslim and Hindu population. For ten points, identify this 1857 event in which Indian soldiers rebelled against the British East India Company.

ANSWER: Sepoy Revolt/Mutiny (accept Indian Rebellion of 1857 until mentioned; or India's First War of Independence; or Great Rebellion; or Indian Mutiny; always obvious equivalents of "Revolt")

<JD>

16. Edsger Dijkstra [DIGE - stra] used this technique in his depth-first solution of the N queens problem, and a predictive parser uses this technique without backtracking. Bottom-up dynamic programming involves the use of these functions, the multi-branched type of which is used by divide and conquer algorithms. Its tail type reduces space requirements because it avoids adding new stack frames, and the (*) Tower of Hanoi problem can be solved with this technique. The factorial of n can be found with this technique by multiplying n by n minus one until the function reaches its base case. Fibonacci numbers are generated by, for ten points, which type of function which calls itself repeatedly?

ANSWER: recursive function (accept recursion and other word forms)

<HX>

17. The prime minister of this nation said that he had “no other option but to accept the will of the people” when discussing national sovereignty. American relations with this country deteriorated after a November attack from Shamsi airbase killed its soldiers near the (*) Khyber Pass. Rick Perry called into question this non-NATO member’s receipt of \$50 billion in aid this year to limit the activities of the Haqqani network and for flood relief. For ten points, name this country whose current president is Asif Zardari and which is in dispute with India over the territory of Kashmir.

ANSWER: Islamic Republic of Pakistan

<DA>

18. This ruler built a network of *burhs* and created the *fyrð* system in order to repel Viking attacks. Bishop Asser served as the biographer of this ruler, who won the Battles of Ashdown and Chippenham. He collected his law code in the Doom Book, and he signed the Treaty of Wedmore, which established the borders of the (*) Danelaw. At the Battle of Eddington, this ruler defeated the Danes under Guthrum, and he translated Latin works such as *Consolation of Philosophy* into English. For ten points, identify this English king of Wessex, the only English king to earn the epithet “the Great.”

ANSWER: Alfred the Great (or Alfred I; prompt on “Alfred”)

<JD>

19. This god sits on a tiger-skin, demonstrating how he has conquered lust, at the top of Mount Kailash in the Himalayas. This deity holds a trident in one hand to symbolize his power and is garlanded by a snake, which denotes his wisdom. He was nicknamed Nilkanth, meaning (*) “blue throat,” after he drank the Halahala, a poison in the Ocean of Milk. His third eye believed to burn all desire, or Kama, to ashes, and he is the father of Kartikeya and Ganesha. For ten points, name this wife of Parvati, a member of the Hindu Trinity along with Vishnu and Brahma, the god of destruction.

ANSWER: Shiva (Accept Siva)

<KT>

20. This author wrote a poem in which he tells Leerie to “see a little child and nod to him to-night!” That poem, “The Lamplighter,” was published as part of this author’s collection *A Child’s Garden of Verses*. This man wrote about Dick Shelton’s desire to rescue his love Joanna with help from the title fellowship in *The Black Arrow*. In another of his novels, Ransome and Captain Hoseason take (*) David Balfour aboard the Covenant. This author is better known for a work in which Gabriel Utterson investigates the title physician’s transformation into his evil self and a novel detailing the travels of Captain Smollett, Jim Hawkins, and Long John Silver in their search for the title locale. For ten points, name this Scottish author of *Kidnapped*, *The Strange Case of Dr. Jekyll and Mr. Hyde*, and *Treasure Island*.

ANSWER: Robert Louis Stevenson

<EnzeC>

End of regulation, only proceed if tied

21. The first of Richard Strauss’s *Four Last Songs* is named after this entity, and the last of Edvard Grieg’s opus 43 is a lyric piece dedicated to this. Johann Strauss Jr. wrote a waltz for orchestra and solo soprano entitled “Voices of” this, and Jean Sibelius’s *Improvisation for Orchestra* was subtitled “The Sadness of” this. Ludwig van Beethoven’s fifth violin sonata is nicknamed this, and Frederick Delius used a clarinet to portray the title bird in his tone poem titled *On Hearing the First Cuckoo in this*. Schumann’s (*) first symphony is nicknamed this, and riots broke out following the 1913 premiere of Igor Stravinsky’s *The Rite of this*. The first concerto in Antonio Vivaldi’s *The Four Seasons* is named after, for ten points, which season that is followed by summer?

ANSWER: spring

<HX>

22. One of this author's works tells his child that is "cradled by my side" that he "shalt wander like a breeze" and that "all seasons shall be sweet to thee." Another of his works exclaims "Joy, Lady! is the spirit and the power" after he is unable to "see, not feel how beautiful they are." This author of "Frost at Midnight" and "Dejection: An Ode" wrote a more famous work which mentions (*) "Alph, the sacred river" flowing "Through caverns measureless to man." That work begins with an order for "A Stately Pleasure-Dome", while another work by this poet cries "Water, water, everywhere, Nor any drop to drink," after the speaker kills an albatross. For ten points, name this English poet of "Kubla Khan" and "The Rime of the Ancient Mariner."

ANSWER: Samuel Taylor Coleridge

<KT>

BONUSES

1. Bonus: It asks “what immortal hand or eye / could frame thy fearful symmetry?” For ten points each:

[10] Identify this poem about the title animal “burning bright / in the forests of the night.”

ANSWER: “The **Tyger**”

[10] “The Tyger” is found in this collection which also includes “The Clod and the Pebble” and “The Poison Tree.” This collection’s counterpart contains “The Lamb.”

ANSWER: **Songs of Experience** (do not accept just *Songs of Innocence*, but prompt on **Songs of Innocence and Experience**)

[10] This author of “The Tyger” and “The Lamb” also wrote of a boy crying “weep! weep! weep!” in “The Chimney Sweeper.”

ANSWER: William **Blake**

<MS>

2. Bonus: This conflict included engagements at St. Albans, Tewkesbury, and Northampton. For ten points each:

[10] Identify this late 15th century conflict in which the Houses of York and Lancaster fought for the English throne. Its name refers to the flowers that appeared on the Houses’ badges.

ANSWER: **War(s) of the Roses**

[10] This final battle in the Wars of the Roses saw Richard III defeated after the defection of Lord Stanley and Henry Percy.

ANSWER: Battle of **Bosworth** Field

[10] This winner at the Battle of Bosworth Field ascended the English throne and founded the Tudor dynasty.

ANSWER: **Henry VII** (prompt on “Henry”)

<JD>

3. Bonus: Two molecules of ATP are invested in it, but four are produced during its pay-off phase. For ten points each:

[10] Name this catabolic pathway which breaks down glucose.

ANSWER: **glycolysis**

[10] Glucose is converted into this 3-carbon anion, which can ferment to produce lactate in anaerobic respiration. This ketone converted into acetyl-CoA before entering the Krebs cycle.

ANSWER: **pyruvate** (accept **pyruvic acid**)

[10] Glycolysis occurs in this gel-like substance of the cell. It makes up about 70% of the cell’s volume and is mostly composed of water.

ANSWER: **cytosol** or **cytoplasm**

<HX>

4. Bonus: The sacking of Rome by the Visigoths in 410 A.D. prompted this man to write *City of God*. For ten points each:

[10] Identify this bishop of Hippo Regius who converted from Manichaeism to Christianity at the behest of St. Ambrose of Milan.

ANSWER: St. **Augustine** of Hippo (or Aurelius **Augustinus**)

[10] This autobiographical work by St. Augustine of Hippo discusses his sinful upbringing by his mother Monica, as well as his studies in Carthage and his eventual rejection of Neoplatonism.

ANSWER: **Confessions** (or *The **Confessions** of St. Augustine*; or **Confessiones**)

[10] This other saint created the first Nativity scene, supported the Poor Clares, wrote “Canticle of the Sun,” and was the patron saint of animals.

ANSWER: St. **Francis** of Assisi

<JD>

5. Bonus: This man's son Valerian was a product of his affair with Juliana Pasteur. For ten points each:

[10] Identify this leader of the resistance group Sons of Korhal, who overthrew the Confederacy and established the Terran Dominion.

ANSWER: Arcturus Mengsk (accept either)

[10] Arcturus abandoned this second-in-command of the Sons of Korhal on Tarsonis, where she was overrun by the Zerg. She became the "Queen of Blades," but was de-infested and saved by Jim Raynor.

ANSWER: Sarah Kerrigan (accept either)

[10] Kerrigan and Raynor both appear in this video game series produced by Blizzard. Titles in this franchise include *Brood War* and *Wings of Liberty*, and its players are venerated in South Korea.

ANSWER: StarCraft

<MS>

6. Bonus: Identify some Jewish-American authors, for ten points each:

[10] This 1978 Nobel prize-winning author wrote about Yasha Mazur's love for Emilia in *The Magician of Lublin* and about the title bread-maker in *Gimpel the Fool*.

ANSWER: Issac Bashevis Singer

[10] This man wrote about the jailing of the "apolitical" Yakov Bok in *The Fixer*, but is better known for a novel about baseball star Roy Hobbs, *The Natural*.

ANSWER: Bernard Malamud

[10] This other Jewish author wrote the title monologue directed at Dr. Spielvogel in *Portnoy's Complaint*, as well as a number of novels about Nathan Zuckerman, including *The Ghost Writer* and *I Married a Communist*.

ANSWER: Philip Roth

<MS>

7. Bonus: It features lengthy violin solos representing the title Arabian princess. For ten points each:

[10] Name this symphonic suite based on *One Thousand and One Nights*.

ANSWER: Scheherazade (prompt on *The Arabian Nights*)

[10] This Russian composer, a member of the "Mighty Handful," composed *The Tale of Tsar Sultan* and *Capriccio Espagnol* in addition to *Scheherazade*.

ANSWER: Nikolai Rimsky-Korsakov

[10] This orchestral interlude in *The Tale of Tsar Sultan* features fast, chromatic sixteenth notes played by a solo violin to depict Prince Gvidon as the title stinging insect.

ANSWER: "Flight of the Bumblebee"

<HX>

8. Bonus: The BCS theory explains this effect on a microscopic level. For ten points each:

[10] Identify this phenomenon, in which at low enough temperatures certain materials have zero electrical resistance.

ANSWER: superconductivity (accept word forms)

[10] In the Meissner Effect, superconductors expel this field from their interior when they drop below the critical temperature. According to Faraday's law of induction, changes in this field induce a current.

ANSWER: magnetic field

[10] BCS theory posits that superconductivity is caused by two fermions bound together in pairs named after this co-developer of BCS with Bardeen and Schrieffer.

ANSWER: Leon Cooper (or Cooper pairs)

<MS>

9. Bonus: Viktor Bunyakovsky discovered the integral form of this inequality. For ten points each:

[10] Identify this inequality, named after the French mathematician who formulated it and the German who expanded on it. One formulation states that the inner product of two vectors is less than or equal to the product of their norms.

ANSWER: **Cauchy-Schwarz**-Bunyakovsky Inequality (or **CSB**)

[10] Cauchy-Schwarz is a much stronger inequality than the power mean, one formulation of which states that the arithmetic mean of n numbers is always greater than or equal to this quantity, the n th root of their product.

ANSWER: **Geometric** mean (or power mean with weight **0**)

[10] Perhaps the simplest algebraic inequality is the so-called “trivial” inequality, which states that all the outputs of this operation over the reals are non-negative. This operation is done by multiplying a number times itself.

ANSWER: **Squaring** (accept “taking a number to the **2**nd power” and equivalents)

<MS>

10. Bonus: Answer the following about the United States’ usage of Unmanned Aerial Vehicles, for ten points each:

[10] American usage of UAV’s began not long after this pilot was shot down from his U-2 spy plane while flying a reconnaissance mission over Soviet Union airspace in 1960.

ANSWER: Francis Gary **Powers**

[10] One of the first times UAV’s were used in combat was during this incident which occurred in a certain body of water northeast of Vietnam. It began after North Vietnamese torpedo boats attacked the USS *Maddox*.

ANSWER: Gulf of **Tonkin** Incident

[10] UAV’s were later used during this 1990-1991 war, which saw a US-led coalition force liberate Kuwait by defeating Iraqi forces under Saddam Hussein.

ANSWER: First Persian **Gulf** War (or Operation **Desert Storm**)

<MP>

11. Bonus: Ayatollah Khomeini issued a *fatwa* against this work’s author for its blasphemy. For ten points each:

[10] Identify this novel in which Gibreel Farishta turns into an angel after a hijacked plane blows up over the English Channel. He later kills his girlfriend Allie and commits suicide.

ANSWER: *The* **Satanic Verses**

[10] *The Satanic Verses* was written by this Indian author, who wrote about people like Saleem Sinai, who were born at the moment of the partition of Pakistan, in *Midnight’s Children*.

ANSWER: Salman **Rushdie**

[10] This comrade of Gibreel is transformed into the devil by the explosion, and seeks revenge for having been abandoned after the crash.

ANSWER: **Saladin Chamcha** (accept either)

<MS>

12. Bonus: This structure makes use of Lake Gatun and Lake Miraflores, and runs parallel to the Boyd-Roosevelt Highway. For ten points each:

[10] Name this canal completed in 1914 under the guidance of the US government, which connects the Caribbean Sea to the Pacific Ocean in its namesake country.

ANSWER: **Panama** Canal

[10] This other famous canal connects the Hudson River to its namesake lake. It runs through Mohawk Valley and its construction was promoted by DeWitt Clinton.

ANSWER: **Erie** Canal

[10] This 61-mile long canal in Schleswig-Holstein connects the North Sea to the Baltic Sea. Ships use this canal to save time instead of going around the Jutland Peninsula.

ANSWER: **Kiel** Canal (or **Kaiser Wilhelm** Canal)

<JD>

13. Bonus: A salt bridge in this device is used to separate the solutions while keeping their respective charges. For ten points each:

[10] Name this kind of cell in which a chemical reaction between two half-cells produces electricity, contrasted with an electrolytic cell.

ANSWER: galvanic cell (accept voltaic cell but do not reveal answer if given; prompt on “electrochemical cell”)

[10] This Italian scientist used a set of individual galvanic cells to create the world’s first electric battery. He is the namesake of the unit of electric potential.

ANSWER: Alessandro Volta

[10] This equation can be used to determine the equilibrium reduction potential of a half-cell and to determine the total voltage for a full electrochemical cell.

ANSWER: Nernst equation

<EnzeC>

14. Bonus: His mother Isis was impregnated by a dead Osiris. For ten points each:

[10] Name this falcon-headed Egyptian god of the sky, who defeated his uncle Set in a war for Egypt.

ANSWER: Horus [or Harsiesis, or Harmerty, or Heru-ur, prompt on “Harpokrates” or “Neferhor”]

[10] This part of Horus, known as a Wadjet, symbolized wealth and power. The proportions of it defined the number one during the Old Kingdom.

ANSWER: Eye of Horus

[10] Horus’s grandfather was this god of the earth. His wife was the sky goddess Nut, and he was believed to control the growth of crops.

ANSWER: Geb [or Gebeb, or Keb, or Seb]

<BZ>

15. Bonus: This period saw an uprising led by Saigo Takamori called the Satsuma Rebellion. For ten points each:

[10] Name this period of modernization in Japanese history in which its namesake emperor came to power after the fall of the Tokugawa Shogunate.

ANSWER: Meiji Restoration

[10] This document was created when Emperor Meiji took power in 1868. It laid out Meiji’s goals for Westernization, and can be considered the first constitution of modern-day Japan.

ANSWER: Charter Oath

[10] This grandson of Emperor Meiji would later give the Jewel Voice Broadcast after leading Japan through World War II. He ruled through much of the 20th century, and was succeeded by Akihito.

ANSWER: Hirohito (also accept Showa)

<JD>

16. Bonus: A lute, astrolabe, psalm book, and sundial lie on shelves in front of emerald curtains in this painting. For ten points each:

[10] Name this painting, housed in the National Gallery in London, which depicts Jean de Dinteville and Georges de Selve posing with a host of assorted objects, including an anamorphic skull.

ANSWER: *The French* Ambassadors

[10] In addition to portraits of Georg Gisze, Sir Thomas More, and Erasmus of Rotterdam, this German artist painted *The Ambassadors*.

ANSWER: Hans Holbein the Younger (prompt on Holbein)

[10] Hans Holbein the Younger worked during the “Northern” version of this Italian “rebirth” of art and literature. Painters in this time period included Masaccio and Titian.

ANSWER: Renaissance

<ZK>

17. Bonus: It was formed by the National Security Act of 1947 and took over the role of the OSS. For ten points each:

[10] Identify this part of the executive branch which specializes in covert operations and gathering information. It should not be confused with the FBI.

ANSWER: CIA (or Central Intelligence Agency; or Other Government Agencies; or OGA; or the Company; or the Agency; or Langley)

[10] This current director of the CIA was previously a 4-star general who commanded US forces in Iraq and Afghanistan.

ANSWER: David Howell Petraeus

[10] This former director of the CIA gave up his spot in mid-2011 in order to serve as Secretary of Defense under the Obama administration, replacing the retiring Robert Gates.

ANSWER: Leon Edward Panetta

<JD>

18. Bonus: The title character meets her husband after he treats her father's illness. For ten points each:

[10] Identify this novel in which Emma has affairs with Rodolphe Boulanger and Leon Dupuis and then commits suicide when she cannot pay off her debts.

ANSWER: Madame Bovary

[10] *Madame Bovary* is the most famous work of this French author, whose *Three Tales* include "Saint Julian," "Herodias." He also wrote a historical novel about the title Carthaginian princess in *Salammbô*.

ANSWER: Gustave Flaubert

[10] Flaubert's *Three Tales* also contains this short story, in which the servant Felicite is spurned by Theodore and goes to work for Madame Aubain.

ANSWER: "A Simple Heart" (or "Un coeur simple")

<MS>

19. Bonus: For some reason, climatologists seem to like naming cycles "oscillations." For ten points each:

[10] This meteorological cycle is characterized by warm surface waters in the eastern Pacific Ocean. It happens in intervals of 2-7 years and is paired with La Niña in its namesake "Southern Oscillation."

ANSWER: El Niño-Southern Oscillation (prompt on ENSO)

[10] El Niño sees a reduction in Walker Circulation, which involve the "trade" type of these phenomena. Monsoons are seasonal types of them that bring rain, and they generally occur due to uneven warming of the Earth's surface.

ANSWER: winds

[10] This other oscillation is often observed 6-12 months before El Niño and sees an anomalous amount of rainfall over the Indian and Pacific Oceans. It is also known as the 30-60 day oscillation due to the length of the cycle.

ANSWER: Madden-Julian oscillation (prompt on partial answer)

<HX>

20. Bonus: They were centered at sites such as Tres Zapotes, San Lorenzo, and La Venta. For ten points each:

[10] Identify this earliest Meso-American civilization centered in Mexico, famous for its large stone heads.

ANSWER: Olmec

[10] This other pre-Columbian civilization flourished from 100 to 800 CE on the shores of southern Peru. They are famous for a series of geoglyphs which are known as their namesake lines.

ANSWER: Nazca

[10] The Chavín and later Andean civilizations made good use of this domesticated beast of burden which resembles a large alpaca.

ANSWER: llamas

<JD>

21. Bonus: The first formulation of these maintains that one should act only if one can imagine a world where everyone acts that way, while the second is known as the “Humanity” formulation. For ten points each:

[10] Name this set of three philosophical concepts used to evaluate the morality of an action.

ANSWER: category imperatives (accept Kant’s category imperative but do not reveal this answer if not given)

[10] The creator of the category imperatives argued against Hume’s ideas in a work titled [this] *of Pure Reason*. That work was followed by another work of this type *of Practical Reason*, as well as one *of Judgement*.

ANSWER: critiques

[10] This German Enlightenment thinker proposed the category imperatives in his *Groundwork for the Metaphysics of Morals*, in addition to writing the three aforementioned critiques.

ANSWER: Immanuel Kant

<HX>

22. Bonus: This god turned into a seal to retrieve the necklace Brisingamen. For ten points each:

[10] Name this son of nine mothers, a golden-toothed god who created the first man and woman.

ANSWER: Heimdallr

[10] Heimdall guards this rainbow bridge connecting Asgard and Midgard, which will eventually be overrun by Jotunn during Ragnarok.

ANSWER: Bifrost [or Bilrost]

[10] The invasion of Asgard will be signaled with the blowing of this horn belonging to Heimdall.

ANSWER: Gjallarhorn

<BZ>