

2002 Martin Luther King Jr. Memorial Tournament
University of Michigan/Duke University
Tossups by Kentucky (Kelly McKenzie)

1. The battle near this town in 1761 saw Ahmad Shah Durrani defeat Maratha forces trying to fill the power vacuum in the region. The Sur Afghans under Hemu were defeated on November 5, 1556 by Bayram, Khan in another battle here, but the best-known battle of this name occurred on April 21, 1526. For 10 points - in what battle was the sultan of Delhi defeated by Babur, establishing the Mughal Empire?

Answer: Panipat

2. "Martern aller Arten" is a famous aria in this work, after whose debut Emperor Joseph II famously described it as "too beautiful for our ears and monstrous many notes." A subplot concerns Osmin's failure to impress Blondchen, whose love Pedrillo, in an attempt to reunite his master Belmonte with the kidnapped Constanza, introduces Belmonte as a famous architect at the court of Pasha Selim. For 10 points - what is this German singspiel set at a Turkish castle, written by Mozart?

Answer: Die Entführung aus dem Serail

English: The Abduction from the Seraglio

3. Some of the scenes for which this film is famous occur in a library, a candle shop, and the clothing store where the protagonist works for Mr. Greenfield, played by Robert Kerman. Written by Maria Minestra and directed by Jim Clark, in it the protagonist has just gotten a new job as a cheerleader in the title city. Starring Bambi Woods, For 10 points - what is this famous pornographic film with an alliterative name?

Answer: Debbie Does Dallas (or The Games People Play)

4. His most important work in mechanics, the *Pneumatica*, describes singing birds, coin-operated machines, a fire engine, and the steam-powered aeolipile, but his most lasting contribution to science is found in his *Metrica*. For 10 points - who was this 1st century Alexandrian mathematician whose formula square root of s times s-a times s-b times s-c gives the area of a triangle using only the lengths of its sides?

Answer: Heron of Alexandria

5. In this novel, the captain of the ship *Bachelor's Delight* is confused by the constant attention given to the title character by the slave Babo. As he takes leave of the title character's ship, the San Dominick, Amasa Delano discovers that Babo has actually led a slave revolt and has been threatening the title figure's life, and Delano soon returns with his fellow sailors and brutally crushes the slave rebellion. For 10 points - what is this 1855 novel by Herman Melville?

Answer: Benito Cereno

6. Near the end of his life this man retired with his disciples to Minobu-san, shortly after having been exiled to the island of Soto, where he wrote the treatise *Kaimokusho*. Earlier, he had been exiled for his attacks on Japan's government and for his tract *Rissho ankoku-ron*, in which he ascribed the ills of Japan to false religion. For 10 points - who is this 13th century Buddhist reformer who proclaimed the Lotus Sutra as the only true doctrine of Buddhism?

Answer: Nichiren

Accept: Zennichi

Accept: Zenshobo Rencho

7. This organization was founded in 1971 by 10 people who had served in Biafra and Bangladesh. They have served clandestinely in such places as Honduras, Iran, and Afghanistan, and they were ejected from Ethiopia in 1985 after criticizing the diversion of supplies by the Mengistu regime. Eschewing compensation, they now have more than 2,000 workers in over 80 countries. For 10 points - what is this large medical relief organization which was awarded the 1999 Nobel Peace Prize?

Answer: **Médecins sans frontières**

English: **Doctors Without Borders**

8. B-Lymphocytes and their derivatives form this varied class of blood compounds. Different kinds are used to inoculate against hepatitis, tetanus, and other diseases and to prevent Rh factor complications during childbirth. Differentiated from the alpha 1, alpha 2, and beta types due to its role in immunity - for 10 points - what is this part of albumin containing antibodies?

Answer: **gamma globulin**

SCROVEGNI: scro-vay-nee

9. Below the main scenes in this artistic work are figures personifying Virtues and Vices painted to simulate stone reliefs, making them the first grisailles in the history of art. The west wall features a Last Supper, while the main wall features three tiers of scenes from the lives of St. Anne, St. Joachim, and the Virgin. These scenes are found in a building popularly named for the Roman structure which formerly occupied it, and was built to atone for the sins of Enrico Scrovegni's father. For 10 points - what is this fresco cycle begun in 1305 by Giotto?

Answer: **Arena** Chapel fresco cycle

Accept: **Scrovegni** chapel cycle

10. This historian's determinism can be seen in his first important work, the nine-volume *The History of the United States of America During the Administrations of Thomas Jefferson and James Madison*. He wrote the novels *Democracy* and *Esther*, the latter perhaps based on his wife Marian Hooper, whose suicide greatly affected his later work, which includes a "study of 13th century unity" entitled *Mont-Saint-Michel and Chartres*. For 10 points - who was this member of a famous political family best known for a work detailing his "education"?

Answer: Henry **Adams**

11. This man nearly died trying to scale K2, and once fell in love with the daughter of the gangster who apparently killed his father with a car bomb. Having lost his millions in a con, he recovered his wealth in an elaborate scheme with the aid of Valerie Malone, but is better-known for his on-again-off-again romance with Kelly Taylor and tempestuous relationship with Brenda Walsh. For 10 points - who was this brooding, sideburn-wearing character played by Luke Perry on *Beverly Hills, 90210*?

Answer: **Dylan McKay**

12. This man's treatise on manganese aided in its discovery, and he also discovered copper arsenite and calcium tungstate, both of which are named for him. Some of his discoveries, like permanganates and uric acid went unnoticed, due to his failure to publish, as his only major work being 1777's *Experiments on Air and Fire*. For 10 points - who was this Swedish apothecary who, independently of Priestly, discovered oxygen?

Answer: Karl Wilhelm **Scheele**

13. This author's collections of short stories include *Black House* and *Tales of Natural and Unnatural Catastrophes*. Originally named Mary Plangman, this author of *The Tremor of Forgery* is known for reflections on human psychology, first seen in 1950's *Strangers on a Train*. For 10 points - who is this American mystery novelist now known for her novel *The Talented Mr. Ripley*?

Answer: Patricia **Highsmith**

14. From 1948 to 1975, this economist was director of the Harvard Economic Research Project on the Structure of the American Economy. Credited with developing economic linear programming, he is best known for a method to examine the components of a nation's economy using a table in which each row describes how one industry's final product is divided among various production processes and final consumption. For 10 points - identify this Russian-born economist who was awarded the Nobel Prize in 1973 for developing input-output analysis.

Answer: Wassily Leontief

15. Among the leaders of these military units were Edward Hatch and Benjamin Grierson. Noted for their discipline, bravery, and low desertion rate, they originally comprised the 38th through 41st infantries and the 9th and 10th cavalries, and were engaged in escorting stagecoaches, policing cattle rustlers, and controlling the Native Americans of the Plains and Southwest. Jack Pershing was a leader of, For 10 points - what African-American regiments of the United States army?

Answer: buffalo soldiers

16. Some of this sociologist's output includes *Houses and House-Life of the American Aborigines* and *League of the Ho-de-no-sau-nee*. Adopted in 1846 by the Seneca, his time with them resulted in *Systems of Consanguinity and Affinity of the Human Family*, and in his best-known work he influenced Marx and Engels with his classification of world cultures by progressive stages of savagery, barbarism, and civilization. For 10 points - who was this American ethnologist, author of 1877's *Ancient Society*?

Answer: Lewis Henry Morgan

17. This literary character is the daughter of Major Brian Tweedy and Lunita Laredo, a Spanish Jewess. A distinguished singer, she conducts an affair with her manager "Blazes" Boylan, and is famous in literature for her long stream-of-consciousness monologue near the end of the novel in which she can be found. For 10 points - who is this wife of Leopold Bloom in *Ulysses*?

Answer: Molly Bloom

18. Partially bounded by the Belle Fourche river, Rapid City is the largest city in this geographic region whose highest point is Harney Peak. Home to Jewel Cave and Wind Cave, its name comes from the appearance of its highly forested slopes, and its importance exploded in 1874 when gold was discovered there by George Custer. For 10 points - what is this chain of rugged mountains in Wyoming and South Dakota, home of Mount Rushmore?

Answer: Black Hills

MUR DU SOLEIL: muhr doo so-lay

19. Among this artist's more important works are *Mur du Soleil* and *Mur de la Lune*, two immense ceramic wall decorations for the UNESCO Building in Paris. Most often identified with the surrealists, he developed a unique style often incorporating amoeba like shapes floating on a plain background, as in *Dog Barking at the Moon*. Also famous for his Catalan landscapes, For 10 points - who was this Spanish painter of Dutch Interior?

Answer: Joan Miro

20. One of this thinker's main ideas called for the distribution of goods amongst free individuals outside state authority, a philosophy he called "mutualism". Considered Marx's main rival in the international socialist movement, he gained notoriety for his violent attacks on French church and state in 1858's *La Justice dans la Revolution et dans l'Eglise*, while many critics consider his best work to be *Systeme des contradictions economiques*. For 10 points - who was this thinker best-known for his seminal work *What is Property*?

Answer: Pierre Joseph Proudhon

21. He kills a schoolyard bully at the age of six, and another at the age of 11. He didn't find out about either, however, as his teachers kept the knowledge from him, to preserve his sanity. Groomed to be commander of the International Fleet in the Third Invasion, he is tricked into committing the first ever act of Xenocide. For 10 points - identify this child military genius, the title character of a science fiction novel by Orson Scott Card.

Answer: Ender Wiggin

22. This story's narrator's love for Beatriz leads him to befriend Carlos Argentino Daneri, who is currently at work on a doggerel epic poem entitled *The Earth*. The narrator learns that Carlos' inspiration comes from a discovery made in his childhood while looking at the stairs in his basement, a small iridescent sphere in which one can see everything in the universe from all possible angles. For 10 points - what is this Jorge Luis Borges story named for the first letter in the Hebrew alphabet?

Answer: The Aleph

23. A water demon, at one point this god was left with the Vanir as a hostage, and they cut off his head. However, Odin then used his magic to enbalm it, and ever after consulted it on critical occasions. He had dwelt under the roof of Yggdrasill, where his well was located, and Odin gave one of his eyes to drink from it, making him the wisest of the gods. For 10 points - who was this god of wisdom?

Answer: Mimir

24. These particles may be involved in the fractional quantum Hall effect, and have been proposed as a mechanism for high-temperature superconductivity. Hypothesized to occur in two-space dimensions, for these particles the wave function is not symmetric or antisymmetric, but rather interpolates continuously between phase signs of +1 and -1. For 10 points - what are these particles which have statistics between fermions and bosons?

Answer: anyons

25. This ruler joined St. Benedict of Aniane in instituting major reforms of the church, though his empire was weakened by Norse raids in the Seine and Scheldt. Sometimes dubbed "der Fromme", much of the turmoil of his later years as king grew from his marriage to his second wife, Judith of Bavaria, whose son joined with his sons from his previous marriage to depose him due to his bungled attempts to clearly establish his successor. For 10 points - who was this father of Lothair, Charles the Bald, and Louis the German, the son of Charlemagne?

Answer: Louis I

Accept: Louis the Pious

26. This thinker's early work used Freudian techniques to study the significance of myths in the classic paper "The Myth of the Birth of the Hero". Also known for works like "Will Therapy" and "Art and Artist", late in his life he practiced a brief, intense form of therapy intended to relieve what he believed to be the central cause of neuroses, a belief which led him to end his time as Freud's secretary. For 10 points - who was this Austrian psychologist who expounded on his landmark idea in 1924's "The Trauma of Birth"?

Answer: Otto Rank

27. This man coined the term "McCarthyism". Winner of three Pulitzer Prizes and joint recipient of a fourth with the Washington Post, the newspaper with which he was associated since 1946, he was a staunch defender of civil liberties, seen in his satirical commentaries on the Vietnam War, the arms race, and Watergate. For 10 points - who was this recently deceased political cartoonist best-known by his pen-name, a contraction of his first and last names?

Answer: Herbert Block

Accept: Herblock

28. Molecules containing three groups of these compounds occur in nature as oils and fats. Ethanoate, methyl propanoate, and glycerides are examples of these compounds which when containing simple hydrocarbon groups are volatile fragrant substances used as flavorings in the food industry. For 10 points - what are these organic compounds formed by reactions between alcohols and acids?

Answer: esters

29. This leader is currently under fire for being the supposed mastermind behind attempts to shut down Channel 6, his country's major independent news channel. Possessing a doctorate in economics, in 1998 he became head of the Federal Security Service after 15 years in the KGB. Succeeding Sergei Stepashin as Prime Minister in 1999, he ordered the invasion of Chechnya and was criticized for his handling of the Kursk affair. For 10 points - who is this current president of Russia?

Answer: Vladimir Putin

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Bonuses by Kentucky (Kelly McKenzie)

1. For 10 points each, identify this terms from poker, none of which is the Barker tax.

A. (10) An alternative to antes, these are required bets placed by the two players to the left of the dealer before seeing any cards.

Answer: **blind** bets

B. (10) In variations such as Texas hold 'em and Omaha, these is the term for the three community cards seen after the first round of betting.

Answer: **flop**

C. (10) This is the best hand acknowledged in poker rules, the royal flush is a subset of this type of hand.

Answer: **straight flush**

2. 30-20-10. Name the artist from works.

(30) *Dedham Vale*, portrait of Maria Bicknell

(20) *Salisbury Cathedral from the Bishop's Grounds, A View on the Stour*

(10) *The Hay Wain*

Answer: John **Constable**

3. For 10 points each, answer the following about enzymes.

A. (10) This is the name for the molecule undergoing reaction, which binds to a specific active site on the enzyme to form a short-lived intermediate.

Answer: **substrate**

B. (10) This is the term for any inactive enzyme that, after secretion, is chemically altered to active form. An example is trypsinogen.

Answer: **zymogen**

C. (10) This is the name for any enzyme that catalyses the formation of covalent bonds using the energy released by the cleavage of ATP.

Answer: **ligase**

4. For 10 points each, name the following stuff from economics.

A. (10) This theorem states that under certain conditions, one cannot guarantee that a ranking of societal preferences will correspond to rankings of individual preferences when more than two people and alternatives are involved.

Answer: **Arrow's impossibility** theorem

B. (10) This is a unique solution to a two-player, non-zero sum game which satisfies four conditions: it is symmetrical, independent of the choice of utility function, independent of irrelevant options, and satisfies Pareto optimality.

Answer: **Nash** equilibrium

C. (10) This theorem states that if transaction costs are negligible and property rights are clearly defined, the most efficient outcome to an economic conflict will be reached regardless of who owns the property.

Answer: **Coase's** theorem

5. For 10 points each, name these volcanoes.

A. (10) Standing at the southern end of the Cascade Range in northern California, this mountain erupted without warning in 1914, and has shown evidence of a 65-year cycle for volcanic activity.

Answer: Lassen Peak

B. (10) Found near Mauna Loa on southeastern Hawaii Island, its name means "Much Spreading", and it is the world's largest active volcanic mass.

Answer: Kilauea

C. (10) Alexander von Humboldt made the first unsuccessful attempt to scale this volcano in central Ecuador. Its height of 19,347 feet makes it the world's highest continuously active volcano.

Answer: Cotopaxi

6. For 10 points each, name these directors from films.

A. (10) *First Name: Carmen; Breathless*

Answer: Jean-Luc Godard

B. (10) *Ministry of Fear, Hangmen Also Die, Metropolis*

Answer: Fritz Lang

C. (10) *Beware of the Holy Whore, The Marriage of Maria Braun, Despair, The Bitter Tears of Petra von Kant*

Answer: Rainer Fassbinder

7. For 10 points each, name these modern female authors.

A. (10) Originally a biologist and scientific writer, this author of *Homeland and Other Stories* is best-known for the novel *Prodigal Summer*.

Answer: Barbara Kingsolver

B. (10) Recent works by this author include *Foxfire: Confessions of a Girl Gang*, and *Zombie*. She is most famous for the trilogy *A Garden of Earthly Delights, Expensive People*, and *Them*.

Answer: Joyce Carol Oates

C. (10) This first-generation Chinese-American gained acclaim for her first book, the non-fiction work *The Woman Warrior: Memoirs of a Girlhood among Ghosts*. Her first novel was *Tripmaster Monkey: His Fake Book*, which centers on the character Wittman Ah Sing.

Answer: Maxine (Ting Ting) Hong Kingston

8. Answer the following about the formation of a provisional government in Afghanistan for 10 points each.

A. (10) This leader of the Northern Alliance was recognized as the head-of-state of Afghanistan by the United Nations after the fall of the Taliban.

Answer: Burhanuddin Rabbani

B. (10) This man was declared chairman of the interim Afghan cabinet in December 2001.

Answer: Hamid Karzai

C. (10) This woman was named a vice chair of woman's issues in the cabinet.

Answer: Sima Samar

9. Answer the following about a pagan movement for 10 points each.

A. (10) With a name derived from the Hebrew for "the king", this Canaanite god of fire's worship was introduced by King Ahaz.

Answer: Moloch

B. (10) The center of Moloch worship was this valley south of Jerusalem at the extreme end of Gehenna. Josiah threw dead bodies in the valley to prevent its use in further sacrifices.

Answer: Tophet

C. (10) This Assyrian king captured many of the cities of Hezekiah, but an angel destroyed his army at Tophet, allowing Jerusalem to be spared.

Answer: Sennacherib

10. For 10 points each, name the actors from the roles they played in Mike Judge's magnum opus, "Office Space".

A. (10) This actor played the protagonist, who rebels against the company for which he works. He is currently playing the new district attorney on "The Practice."

Answer: Ron Livingston

B. (10) The romantic lead is played by this actress whose character loves kung fu movies and hates wearing pieces of flair for her waitress job.

Answer: Jennifer Aniston

C. (10) Ron Livingston's lugubrious boss is memorably portrayed by this actor also known for his dead-on impersonation of Robert Reed in the Brady Bunch movies.

Answer: Gary Cole

11. For 10 points each, answer the following about a New Deal Act.

A. (10) This was the First New Deal's keystone law for business reform. Its main provisions were funding for the Public Works Administration and the creation of the NRA to coordinate drafting of industry-wide codes of corporate conduct.

Answer: National Industrial Recovery Act

B. (10) Section 7 of Title 1 of the National Industrial Recovery Act outlawed these colorfully-named contracts which allowed corporations to fire employees who joined labor unions.

Answer: Yellow-Dog contracts

C. (10) In this 1935 Supreme Court Case the NIRA was unanimously struck down for infringing on the states' intrastate commerce rights and for delegating too much legislative authority to the President.

Answer: Schechter Poultry Corporation v. U.S.

Prompt on: Sick Chicken case

12. For 10 points each, name these poets associated with the American Civil War.

A. (10) This poet of *The Revenge of Hamish*, *The Marshes of Glynn*, and *The Symphony* is known both for his flute-playing and *The Song of the Chattahoochie*.

Answer: Sidney Lanier

B. (10) This poet of *The Cotton Boll*, *Ethnogenesis*, and *Charleston* was popularly known as the Poet Laureate of the Confederacy.

Answer: Henry Timrod

C. (10) Known for the volume of his output, this man's mansion was destroyed during Sherman's March to the Sea. His poems include *My Study*, *Aspects of the Pines*, and *The Mockingbird*.

Answer: Paul Hamilton Hayne

13. 30-20-10. Name the philosopher.

(30) He is the author of "Political Liberalism" whose dissertation was "A Study in the Grounds of Ethical Knowledge: Considered with reference to Judgments on the Moral Worth of Character."

(20) Having spent his entire academic career at Harvard, his most important work examines "the grounds of ethical knowledge", and reaches controversially liberal conclusions about "distributive justice".

(10) That most famous work is "A Theory of Justice" where he introduces the idea of the "veil of ignorance."

Answer: John Rawls

14. For 10 points each, name these things from chemistry.

A. (10) In contrast to dextrorotatory compounds, this is an optically active compound which rotates the plane of plane-polarized light counterclockwise from the point of view of someone facing the oncoming radiation.

Answer: levorotatory

B. (10) This is any mixture of equal quantities of the d- and l- forms of an optically active compound. They are denoted by the prefix dl-.

Answer: racemic mixture

Accept: racemate

C. (10) This synthesis is used to prepare racemic alpha-amino acids by treating an aldehyde with potassium cyanide and aqueous ammonia, yielding an intermediate alpha-aminonitrile which is then hydrolyzed to an alpha-amino acid.

Answer: Strecker synthesis

15. For 10 points each, name the following about a composer.

A. (10) A member of Les Six, this man is noted for such works as *Joan of Arc at the Stake* and *King David*.

Answer: Arthur Honegger

B. (10) Described as Honegger's "Symphonic Movement No. 1", this work was inspired by the sounds of a locomotive.

Answer: Pacific 231

C. (10) This symphony was inspired by Honegger's view of post-WWII Europe. Its three movements are *Dies Irae*, *De profundis*, and *Dona nobis pacem*.

Answer: Symphony #3

Accept: Liturgical Symphony

16. For 10 points each, name these famous Ottomans.

A. (10) This Turkish nomad was the leader of the famous "four hundred tents" who declared his independence from the Seljuk's in 1290, making him the founder of the Ottoman Empire.

Answer: Uthman I

Accept: Osman I

B. (10) This son of Murad II gained the name "conqueror" for his 1453 taking of Constantinople.

Answer: Mehmed II

Accept: Muhammad II

C. (10) This famous Ottoman pirate joined his brother Aruj in freeing Algiers from Spain, and soon rose to become Grand Admiral of the Ottoman navy. His greatest victory was his taking of Tunis from Charles V in 1534.

Answer: Khayr ad-Din Pasha

Accept: Barbarossa

17. 30-20-10. Name the scientist.

(30) He was the first to discover piperidine and developed a useful apparatus to determine the compressibility of fluids. He also founded the Society for the Promotion of Natural Science.

(20) In 1825 he became the first scientist to isolate aluminum.

(10) In 1820 he discovered that a magnetic needle aligns itself perpendicularly to a current-carrying wire, and is the namesake of the cgs unit of magnetic field strength.

Answer: Hans Christian Oersted

18. Answer the following about a myth concerning Thor's trip to Utgard for the stated number of points.

A. (10) Thor made the trip to Utgard with this trickster god of Norse myth, who will remain chained to a rock and tortured by drops of venom until Ragnarok, where he will kill Heimdall.

Answer: Loki

B. (5/5) While traveling, Thor and Loki stayed for the night with a peasant family. Thor provided their meal for the evening by sacrificing these two goats that drew his chariot.

Answer: Tangristi and Tangnasti

Accept: Tanngnjost and Tanngrislir

Prompt on: Toothgrinder and Toothgnasher

C. (15) Against Thor's orders, this child broke a tiny bone from the meal, leading one of the goats to limp when regenerated the next day.

Answer: Thialfi

Accept: Thjalfi

19. "He must have pictures of Jerry Reinsdorf having sex with a monkey." For 10 points each:

A. (10) What outspoken NBA on TNT analyst made this claim.

Answer: Charles Barkley

B. (10) Barkley's off-the-cuff comment was directed at what general manager of the Chicago Bulls, who has seen his team fall into disarray since its 1999 dismantling of a six-time champion.

Answer: Jerry Krause

C. (10) Barkley's comment was made on the "The Last Word", a Fox Sports Net program hosted by this controversial man, also known for hosting his syndicated radio show nicknamed "The Jungle."

Answer: Jim Rome

20. For 10 points each, name these works by Tom Stoppard.

A. (10) Told mainly through the memories of Henry Carr, this play tells of an amateur performance of *The Importance of Being Earnest* in Zurich, where James Joyce, Vladimir Lenin, and Tristan Tzara engage in philosophical conversations.

Answer: Travesties

B. (10) In this satire of academic philosophy, the physical acrobatics of the people of the title parallels the verbal gymnastics used by George Moore.

Answer: Jumpers

C. (10) This 1966 play places two "attendant lords" from Hamlet at the center of a drama which examines man's solitude and lack of mastery over his own life.

Answer: Rosencrantz and Guildenstern Are Dead

21. For 10 points each, name the following about the art movement Constructivism.

A. (10) This Russian is considered the founder of Constructivism.

Answer: Vladimir Tatlin

B. (10) The name constructivism derives from a line in this manifesto produced by the brothers Antoine Pevsner and Naum Gabo.

Answer: Realist Manifesto

C. (10) This architectural design by Tatlin is considered by many to represent the climax of Constructivism. Although it was never built, it was intended to be an iron design with a revolving central glass cylinder, and was to be bigger than the Eiffel Tower.

Answer: Monument to the Third International

22. For 10 points each, name the following about Carl Jung.

A. (10) Jung defined this as the repressed and guilt-laden part of the personality.

Answer: shadow

B. (10) Jung formulated the concepts of introvert and extrovert in this 1923 work.

Answer: Psychological Types

C. (10) A conceptual equivalent of instinct, Jung conveyed of these as symbols organizing elements of the collective unconscious.

Answer: archetypes

23. For 10 points each, name these physical effects.

A. (10) Especially seen in Rochelle salts and quartz, this is the generation of a potential difference across the opposite faces of certain nonconducting crystals.

Answer: piezoelectric effect

B. (10) Known in normal and anomalous versions, this analogue of the Stark effect is the splitting of the lines in a spectrum when the source of the spectrum is exposed to a magnetic field.

Answer: Zeeman effect

C. (10) Not yet observed but predicted to occur in quantum electrodynamics, this is an effect in which electron-positron pairs are "sucked out" of a vacuum by an electric field. It is named for the man who shared the 1965 Nobel Prize with Tomonaga and Feynman.

Answer: Schwinger effect

24. For 10 points each, given a nickname, name the French king named Louis who was called by said nickname.

A. (10) the Do-Nothing

Answer: Louis V

B. (10) the Stammerer

Answer: Louis II

C. (10) the Quarrelsome

Answer: Louis X

25. For 15 points each, name these people controversial for their work concerning comparison of races.

A. (15) This French diplomat and scholar is considered the intellectual founder of racialism for his "Essay on the Inequality of Human Races", in which he held that the White Aryan race is the purest race, superior to all others.

Answer: Joseph Arthur, Comte de Gobineau

B. (15) With contributor Charles Murray, this man wrote the controversial "The Bell Curve: Intelligence and Class Structure in American Life".

Answer: Richard J. Herrnstein

26. For 10 points each, name these European battles fought by dead white men.

A. (10) This 1176 battle was a decisive victory of the Lombard League over Frederick Barbarossa. It forced Frederick to recognize the liberty of the Italian cities and come to terms with Pope Alexander III in the Treaty of Venice.

Answer: Legnano

B. (10) This 1525 battle of the Italian Wars saw the superior numbers of Francis I's Valois forces defeated by Habsburg forces. Francis was taken prisoner during an abortive cavalry attack on the Habsburg garrison, temporarily checking the French threat in Italy.

Answer: Pavia

C. (10) This 1726 battle was the decisive battle of the Great Northern War and saw Peter the Great lay the smackdown on Charles XII of Sweden.

Answer: Poltava