

2001 Mad City Masters / UC-Irvine Open

Tossups by Berkeley A (Amar Hatti, Steve Kaplan, Selene Koo, Mike Usher)

1. Partly because of an inaccurate translation by Henry Williams and partly because of the signatories' fear of exploitation by private land speculators, within a week of being drafted it was signed by over 100 chiefs, including Tamati Waka Nene. Its February 6, 1840 composition by James Busby and William Hobson is commemorated by a holiday of thanksgiving, though it was substantially weakened by the 1862 Native Land Act and native activists remain bitter over what they perceive as its false promises. For 10 points--name this treaty which led to Britain's annexation of the North Island of New Zealand.

ans: Treaty of Waitangi

2. He lends his name to a pair of laws which guarantee that the amount of electric charge necessary to liberate one gram equivalent of any ion from an electrolytic solution is a constant; that constant, equal to about 96,500 coulombs, is also named for him. In optics, his namesake effect, the strength of which depends partly on Verdet's constant, is the rotation of the plane of polarization of light in a magnetic field. For 10 points--name this one-time apprentice to Humphrey Davy and discoverer of benzene, best known for his discovery of electromagnetic induction.

ans: Michael Faraday

3. He desires to see the gigantic race from which [he was] degenerated, which naturally leads him to visit Eastcheap, Westminster Abbey, and Little Britain. For the entertainment of his friends, he also tells the tales of George Somers, Sir Herman von Starkenfaust, and Philip of Pokanoket. For 10 points--identify this American storyteller who finds and recounts the tales of Rip van Winkle and Ichabod Crane, the fictional author of Washington Irving's work *The Sketch Book*.

ans: Geoffrey Crayon, Gentleman

4. His myth appears in several religions: he is the Ugaritic god of evil, and in Canaanite mythology, in which he is called Lotan, he is a seven-headed monster eventually killed by Baal. Referred to thrice in the Old Testament, in Psalm 74 he is a sea serpent killed by God and given to the Hebrews as food. For 10 points--name this monster who, in the messianic era, will engage in a spectacular battle with Behemoth.

ans: Leviathan (accept early Lotan)

5. Cast members have included former tavern proprietor Bill Foster and dancer Nicole Rodriguez. The show features frequent man on the street interviews as well as a segment called household hints from adult film stars. For 10 points--name this Comedy Central show that's 30 minutes of beer commercial fun hosted by Adam Carolla and Jimmy Kimmel.

ans: The Man Show

6. Born in the 4th-century BC, though not venerated until the 11th century, much of the system of thought he formulated was related to the concepts of *jen* and *yi*, roughly translatable as humanity and duty, respectively. His conceptions foreshadow the later development of Lockean contract theory. For 10 points--name this Chinese philosopher, known as the Second Sage, who refined the systems of ethics and morality expostulated by Confucius.

ans: Mencius or Meng-tzu

7. Before its southeastward bend, this river's right bank reaches heights of 160 feet near the cities of Lebedyan and Dankov. Major projects during the Soviet era involving it included the creation of the enormous Tsimlyansk Reservoir along its lower course as well as a canal running 50 miles eastward from its easternmost point to the Volga River. Known mainly for the Cossacks that lived along its shores--for 10 points--name this river which empties into the Gulf of Taganrog in the Sea of Azov after quietly flowing for 1162 miles.

ans: Don river

8. At the age of 40 he was the youngest man ever to serve as president of Yale University. During his time there he published two works of Comparative Literature focusing on the Renaissance. He resigned as president in 1986 to become president of the National League. Three years later he succeeded Peter Uebberoth and took on a new position. For 10 points--name this commissioner of Major League baseball who banned Pete Rose from baseball for life.

ans: A(n)gelo Bartlett Giamatti

9. The most primitive way of constructing these uses step functions introduced by Alfred Haar, but they only became really useful in 1987 when Ingrid Daubechies discovered a compactly supported continuously differentiable basis for them. Because the Daubechies method uses localized functions, it is more efficient for the approximation of choppy data than the traditional method of using the Fourier transform. For 10 points--name these mathematical objects that have been used for the compression of video signals, the name of which dates back to Christiaan Huygens' term for "little waves."

ans: wavelets

10. A mass killing at a late-night café results in the death of an ex-policeman cashiered from the force because of his involvement in the assault of prisoners at a police lockup. The investigation of the crime eventually ensnares prominent members of the city elite, including a television scandalmonger, a developer, and a ruthless police captain. For 10 points--name this stylish *noir* [nwahr] thriller, based on a James Ellroy novel, that starred Kevin Spacey, Russell Crowe, and Guy Pearce as L.A.P.D. detectives caught in James' Cromwell's effort to seize control of the Los Angeles underworld.

ans: L.A. Confidential

11. As a financier he was president of the Central Trust Company of Illinois starting in 1902. Later, he would serve in the military in World War I and serve as first director of the Bureau of the Budget. He and Teddy Roosevelt are the only two United States Vice-Presidents to win the Nobel Peace Prize. For 10 points--name this man who also headed up the Allied Reparations Commission which drafted a plan named for him.

ans: Charles Gates Dawes

12. Characters in this play include Ferdinand the Duke of Calabria, his brother the Cardinal, and the Marquis of Pescara. The title character marries Antonio, enraging her brothers so much that they hire Bosola to murder her and her children. For 10 points--name this play, the most famous of John Webster.

ans: The Duchess of Malfi

13. Racemic versions of this group of compounds can be synthesized by a modified Gabriel synthesis with a derivative of malonate, or by the Strecker synthesis from a corresponding aldehyde. Additionally, some members can be synthesized by the transamination of pyruvate or oxaloacetate, two intermediates in the breakdown of glucose. For 10 points--identify this common class of compounds that includes citrulline, ornithine, and proline, and which are the basic building blocks of proteins.

ans: amino acids

14. In the late 16th century it took approximately its current form, with a three-stringed lute accompanying the chanting of a *yoruri*. It reached its height in the early 18th century thanks to the chanting of Takemoto Gidayu and the scripts of Monzaemon Chikamatsu, who wrote most of his plays for this theatrical form. For 10 points--name this Japanese genre of puppet theater.

ans: bunraku

15. He was first elected to Parliament in 1757, and in 1763 went into the publishing business as well. Vulgar material printed in his newspaper led to his expulsion from Parliament. His constituents reelected him three times, but each time Parliament refused to seat him. However, he was so popular among the people that he became lord mayor of London in 1774. For 10 points--name this British politician popular among American revolutionaries, who was also the namesake of a later actor and assassin.

ans: John Wilkes

16. Originally, it was intended that the roles of the evil characters Lindorf, Coppelius, Dapertutto, and Dr. Miracle would all be sung by the same baritone, while the four loves of the main character would all be sung by the same soprano. Based on three short stories entitled "The Sandman," "New Year's Eve Adventure," and "Councillor Crespel," the libretto by Jules Barbier modified these stories so that the title character is the hero of all of them. For 10 points--identify this opera that contains a famous Barcarolle in its second act, composed by Jacques Offenbach.

ans: The Tales of Hoffmann (or Les contes d'Hoffmann)

17. They exhibit dynamic instability, as described by Mitchison and Kirschner, causing them to have half-lives of only several minutes in the cell. They are responsible for the proper assembly of the Golgi apparatus and the extension of the endoplasmic reticulum throughout the cell, while they themselves require the presence of magnesium and GTP for assembly. For 10 points--identify these protein polymers associated with the motor

proteins kinesin and dynein [DIE-neen], the cytoskeletal components that are the main structural elements in centrioles, cilia, and flagella.

ans: microtubules

18. This kingdom's people, also known as the Maeonians, had been destined for ultimate destruction since the moment when the king's bodyguard saw the king's wife naked, leading to the usurpation of the Heraclids by the Mermnadae. In the fifth generation after the ascendance of Gyges, the invasion of a land whose men drank no wine failed when this kingdom's vaunted cavalry was disabled by the enemy's use of camels. For 10 points--identify this ancient kingdom with capital at Sardis, the first to introduce the use of gold and silver coins.

ans: Lydia

19. When his sister attempts to force him to consume snails, he takes drastic action on June 15, 1767. He later meets Viola Violante and makes a vow to never leave his situation before carrying on a passionate love affair in unique circumstances. He then also becomes a noted liberal thinker and corresponds with important personages of the time before eventually departing the novel by balloon. For 10 points--Cosimo Piovasco di Rondo is the title character of what 1959 novel by Italo Calvino about a man who spends much of his life literally high above everyone else?

ans: The Baron in the Trees or Il Barone Rampante (accept Cosimo Piovasco di Rondo early)

20. He was commissioned a second lieutenant in his nation's Air Force after training at military schools. He and several other young officers staged a 1979 coup that culminated in the executions of their former commanders, Generals Acheampong and Akuffo. After handing over control of the government to the elected civilian president Hilla Limann, he returned to power in 1981 with the Provisional National Defense Council and instituted extensive socialist and later free-market economic reforms. For 10 points--name this leader who in January 2001 left power after four terms as president of Ghana.

ans: Jerry Rawlings

21. The name's the same. The punk-rock band on the Industrial Strength Records label that recently released the EP *Born Too Loose*. An alkaloid extract from the seeds of the tree *nux vomica* that has supposedly been mixed with LSD and put on pay phone buttons. For 10 points--identify this poison that stimulates the spinal cord and causes hypersensitivity and convulsions in the muscles of the back, once frequently used in tonics to create a sense of well-being, and as a bird and rat poison.

ans: strychnine

22. Its western edge experiences some of the heaviest precipitation in the nation, and highway 101 rings its perimeter. Cities on it include Clallam Bay, Port Townsend, Neah Bay, and Port Angeles. For 10 points--name this peninsula surrounded on three sides by the Pacific Ocean, Puget Sound, and the Strait of Juan De Fuca, which is home to a national park of the same name in the state of Washington.

ans: the Olympic peninsula

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Bonuses by Berkeley A (Amar Hatti, Steve Kaplan, Selene Koo, Mike Usher)

1. In a span of 15 years, two major Russian authors died young and two others were punished by Tsar Nicholas I for eulogizing them. For 5 for one and 15 for both in each episode--name them from clues.

A. The first to die did so in 1837 in a duel with the Baron d'Anthes. One of his many admirers wrote the scathing poem "The Death of a Poet" in response, for which he was exiled to the Caucasus, where he wrote narrative poems like *Mtsyri* and *Demon* before being killed in a duel himself at the age of 26.

ans: Alexander Sergeyevich Pushkin and Mikhail Yuryevich Lermontov

B. In 1852, the second died insane after falling under the influence of a fanatical priest. One of his admirers was briefly exiled to his estate for writing a mildly liberal obituary, after which he was pardoned, allowing him to spend most of the rest of his life in Western Europe, where he pined after French opera star Pauline Viardot and wrote such novels as *Smoke* and *The Torrents of Spring*.

ans: Nikolai Vasilievich Gogol and Ivan Sergeyevich Turgenev

2. Answer the following about the path-integral approach to quantum mechanics, for 10 points each each:

A. Who invented it in his 1942 dissertation?

ans: Richard (Phillips) Feynman

B. Feynman's approach was based on Dirac's suggestion that the probability amplitude for a quantum-mechanical system to evolve in a certain way should take the form $e^{iS/\hbar}$. What quantity, which also appears in classical mechanics, is represented by the "S"?

ans: action

C. Because the contribution to the integral of $e^{iS/\hbar}$ to the iS/\hbar is largest near the extreme values of S, Feynman's approach may be considered a modification of what generalized principle first formulated by Maupertuis and further developed by the mathematicians Euler, Lagrange, and Hamilton?

ans: principle of least action

3. Name these emperors of the Mauryan dynasty:

A. For 5 points--this ruler conquered the province of Kalinga, after which he renounced armed conflict and helped to expand Buddhism throughout India.

ans: Asoka

B. For 10 points--this founder of the dynasty, the first man to unify most of India under a central government, fasted to death in sorrow over a famine. He shares his name with the founder and namesake of a later Indian dynasty.

ans: Chandra Gupta Maurya

C. For 15 points--the Mauryan dynasty was replaced by the Sunga dynasty when this man, its last ruler, was killed by his commander-in-chief in 185 BCE.

ans: Brhadratha

4. Identify these American museums from highlights of their collections, for 10 points each:

A. It has the largest collection of works by Monet of any museum outside France, and also has the world's foremost collection of 19th-century American art, including murals and numerous paintings by John Singer Sargent.

ans: Boston Museum of Fine Arts (or MFA)

B. This museum has the world's largest collection of works by Thomas Eakins. It also administers a major Rodin museum located a couple of blocks away from the main museum grounds.

ans: Philadelphia Museum of Art

C. This museum, whose East Building was designed by I. M. Pei, has an extremely strong collection of Italian Renaissance art, including Titian's *Venus and Adonis* and Fra Angelico and Fra Filippo Lippi's *Adoration of the Magi*.

ans: National Gallery of Art

5. Identify these related things, for 10 points each:

A. The character of Meyer Wolfsheim in *The Great Gatsby* is supposedly based on this gambler who allegedly fixed the 1919 World Series.

ans: Arnold Rothstein

B. In Bernard Malamud's baseball novel *The Natural*, the hero Roy Hobbs carves this amazing baseball bat out of the tree his father died under.

ans: Wonderboy

C. The 1995 novel *Wonder Boys* was written by this author of the recently published novel *The Amazing Adventures of Kavalier and Clay*.

ans: Michael Chabon

6. Given a city, name the county of which it is county seat, for 5 each.

A. Phoenix ans: Maricopa

B. Detroit ans: Wayne

C. Atlanta ans: Fulton

D. Seattle ans: King

E. San Antonio ans: Bexar

F. Cleveland ans: Cuyahoga

7. The concept of electronegativity is useful for predicting bond polarities and reactivities of molecules. Several different people have attempted to quantify this mysterious property of an atom. Given a brief description of a definition of electronegativity, give the name of the scientist who proposed it.

A. For 5 points--the first definition for electronegativity, proposed by this proponent of Vitamin C, is based on differences in bond enthalpies due to their different ionic characters.

ans: Linus (Carl) Pauling

B. For 10 points--electronegativity is defined as the average of the ionization energy and electron affinity of an atom by this winner of the 1966 Nobel Prize in Chemistry.

ans: Robert S(Anderson) Mulliken [not to be confused with physicist Robert A. Millikan]

C. For 15 points--name either of the two scientists who defined electronegativity as proportional to the electric field at the surface of an atom.

ans: A. Louis Allred or Eugene George Rochow

8. Identify these overtures, all of which were not written to accompany an opera, for 10 points each:

A. This overture was written by Beethoven as part of the incidental music to a play by Goethe. In this play, the title character, a Flemish patriot, leads an uprising against oppressive Spanish rulers.

ans: Egmont Overture

B. This overture was the one Brahms first wrote expressing his gratitude for being awarded an honorary doctorate. However, he decided to dedicate his *Academic Festival Overture* to the university instead because of the mood of this original overture.

ans: Tragic (or Tragische) Overture

C. Dvorak opened his first concert in the United States with a series of three concert overtures collectively titled *Nature, Life, and Love*. These overtures were later published as separate works, with the second one becoming by far the most popular. Give the more common name of this second overture on *Life*.

ans: Carnival Overture

9. Peter the Great and Catherine the Great ruled Russia for 77 years. In the 37 years between their reigns six people were tsar. For 5 points each--name the six interceding tsars.

ans: Catherine I, Peter II, Anne, Ivan VI, Elizabeth, and Peter III (accept in any order).

10. For 10 points each--answer the following concerning the 1987 album *Appetite For Destruction*, already a classic:

A. What group recorded it?

ans: Guns N Roses

B. Which song on the album contains the lyrics: "Where the grass is green / And the girls are pretty / Take me home"?

ans: Paradise City

B. Which track has the lyrics: "If you got a hunger for what you see / You'll take it eventually / You can have anything you want / But you better not take it from me"

ans: Welcome to the Jungle

11. Identify the delicacy from a description.

A. For 5 points--per person, Hawaiians eat more of this concoction of pork shoulder, ham, and spices than people of any other state. In a Monty Python sketch, it has been served with Lobster Thermidor and truffle paté.

ans: Spam

B. For 10 points--this Norwegian delicacy consists of cod soaked in lye for several days until it attains the consistency of gray jelly; it is generally served with aquavit.

ans: lutefisk

C. For 15 points--this dish from the Philippines, affectionately called "chocolate pork," actually consists of assorted pork parts cooked in pigs' blood.

ans: diniguan

12. Identify these British authors from works and interesting things they did:

A. For 5 points--this author of *Burmese Days* served with the Indian Imperial Police in Burma from 1922 to 1927.

ans: George Orwell (or Eric Arthur Blair)

B. For 5 points--this author of *Where Angels Fear to Tread* and *The Longest Journey* also wrote the libretto to Benjamin Britten's *Billy Budd*.

ans: E(dward) M(organ) Forster

C. For 10 points--this author of *Tom Brown's Schooldays* bought land in Tennessee to build a model community for boys called Rugby.

ans: Thomas Hughes

D. For 10 points--this author of the spy thriller *Ashenden* based the work on some of his own experiences as a British secret agent in World War I.

ans: W(illiam) Somerset Maugham

13. Name these Hungarian mathematicians, for 10 points each:

A. This man's proof of the minimax theorem helped launch the field of game theory, and his work on rings of operators helped lay a firmer mathematical foundation for quantum mechanics.

ans: John von Neumann

B. This longtime Stanford professor proved an enumeration theorem in combinatorics and a famous theorem on random walks, but is probably best remembered for his role as author or co-author of books like *Inequalities*, *Problems and Theorems in Analysis*, and *How to Solve It*.

ans: George Polya

C. This 19th-century mathematician, who now has a university named after him, discovered a system of non-Euclidean geometry independently of Gauss and Lobachevsky.

ans: Janos Bolyai

14. Name these Supreme Court justices who resigned in order to seek other political office:

A. For 5 points--upon returning to America after negotiating a 1794 treaty with Britain, he found he had been elected governor of New York. He resigned his seat in order to become governor.

ans: John Jay

B. For 10 points--he was an associate justice from 1910 to 1916 when he resigned to run for president. Although he lost, he was later appointed Chief Justice in 1930.

ans: Charles Evans Hughes

C. For 15 points--as a justice without a clear political affiliation he was expected to be the 15th member of the election commission selected to determine the winner of the disputed 1876 Hayes-Tilden presidential election. However, the Illinois Legislature nominated him for the Senate, leaving only Republicans to fill his spot, thus giving the election to Hayes.

ans: David Davis

15. Name these current Los Angeles Lakers coaches:

A. For 5 points--this Zen Master coached the Chicago Bulls to six NBA championships.

ans: Phil Jackson

B. For 10 points--this man is widely considered to be the genius behind Jackson's triangle offense; he also coached with the Bulls before moving west.

ans: Tex Winter

C. For 15 points--this assistant coach couldn't make it on his own, accumulating a win-loss record of 28 and 70 in just over one season as head coach of the Dallas Mavericks.

ans: Jim Clemons

16. Recently, there has been a raft of media reminiscences about American experiences in World War II.

A. For 5 points--this 1998 film told the story of an American squad led by Captain Miller who search Normandy after D-Day to discover the last surviving brother of four and remove him from the battle zone.

ans: Saving Private Ryan

B. For 5 points--the same year saw television news anchor Tom Brokaw's commemoration of sacrifices made by individual World War II veterans and their families in this best-selling book.

ans: The Greatest Generation

C. For 10 points--this historian has written several WWII books, including *Citizen Soldiers* and *The Victors*. His most recent, *Band of Brothers*, is being made into a miniseries.

ans: Stephen E. Ambrose

D. The 2001 film *Pearl Harbor* recently made the cover of *Newsweek*. For 10 points--name its young director, whose most recent previous film was *Armageddon*.

ans: Michael Bay

17. Identify the following about the Vienna Circle, for 10 points each:

A. This "ism" names the core belief held by many Circle members that logical reasoning and empirical experience were the only sources of knowledge, and therefore metaphysics was pure speculation.

ans: logical positivism (don't accept or prompt on just "positivism")

B. The logical positivists believed that this type of statement could only be formulated in *a posteriori* conditions, as opposed to analytical statements which could be formulated in *a priori* terms.

ans: synthetic statements

C. Karl Popper, although not considered a member of the Circle, developed this principle strongly supported by the Circle which emphasized a unique characteristic of science, the ability for one to prove the erroneousness of scientific theories.

ans: the verifiability or falsifiability principle

18. Name these Pacific island chains, for 10 points each:

A. This chain in the West Caroline islands has been held by Spain, Germany, and Japan before being administered by the United States as the last United Nations trust territory. It has recently built a new capital on the island of Babelthup to replace the old capital at Koror.

ans: Palau

B. This chain gained free-association status in 1987 after more than 40 years of United States military control. It includes the atolls of Eniwetok, Bikini, and Kwajalein, and is populated mainly by Micronesians.

ans: the Marshall Islands

C. This island in the Solomons was the scene of heavy fighting in 1942 for control of the airstrip at Henderson Field.

ans: Guadalcanal

19. Name these authors who wrote in Arabic:

A. For 5 points--this Egyptian won the 1988 Nobel Prize in Literature for works such as his *Cairo Trilogy*.

ans: Naguib Mahfouz

B. For 10 points--this poet and philosopher penned in Arabic such romantic and mystical works as *The Broken Wings*, *The Storms*, and *The Procession*. He also wrote in English *The Prophet*, *Sand and Foam*, and *Jesus, the Son of Man*.

ans: Kahlil (Gibran) Gibran

C. For 15 points--this Persian wrote lyric poems in the court of the Abbasid Caliphs extolling the joys of wine and life in general.

ans: Abu Nuwas

20. Identify the following about a federal regulatory institution that recently experienced changes in leadership:

A. For 5 points--this agency's stated goal is to protect investors and maintain the integrity of securities markets.

ans: The Securities and Exchange Commission or SEC

B. For 10 points--this is the recently departed head of the SEC, in office since the early '90s.

ans: Arthur Levitt

C. For 15 points--this is the New York lawyer and SEC Historical Society chairman nominated by President Bush to succeed Levitt as the head of the agency.

ans: Harvey Pitt

21. Identify the man who founded an ancient Chinese dynasty, for 10 points given a deed attributed to him, or for 5 points if you need the name of the dynasty he founded.

A. 10: This emperor claimed that he could predict flooding of the Yellow River with a magical symbol he discovered on the back of a tortoise. This symbol is one example of a magic square.

5: Xia [pronounced SHIA]

ans: Yu the Great

B. 10: He wanted his dynasty to last forever, so he ordered the burning of all books that did not espouse Legalism. He also wanted to become a god, so he took pills that contained mercury, ultimately leading to his death.

5: Qin [pronounced CHIN]

ans: Qin Shi-huang-di (also Chin Shih-huang-ti or Prince Cheng)

C. 10: He instituted agricultural reforms, including the dissolution of large land estates and redistribution of land to the peasants. A change in the course of the Yellow River ultimately led to his overthrow.

5: Xin [pronounced SHIN]

ans: Wang Mang

22. Identify these things that have been linked with an increased risk of cancer from a brief description, for 10 points each:

A. This group of toxins found to be carcinogenic in rats is produced by a mold that grows on crops such as peanuts, corn, and wheat. The B1 type is the most common and most toxic.

ans: aflatoxins

B. This RNA virus induces the namesake tumors to form in infected chickens. A mutated version of the src [pronounced SARK; also spell it out] proto-oncogene was isolated from the virus.

ans: Rous sarcoma virus (or RSV)

C. Mutations in this tumor suppressor gene may be responsible for up to 50% of all cancers; when the mutation occurs in germ line cells, a hereditary cancer syndrome called Li-Fraumeni syndrome results. The normal gene is responsible for programmed cell death.

ans: p53 [P fifty-three]