

16. Name these American philosophers for ten points each.

1. This logician spent his entire career at Harvard and is known for *Word and Object* and *Two Dogmas of Empiricism*,

Answer: Willard Van Orman **Quine**

2. Currently an emeritus professor at Stanford, this philosopher's pragmatic approach to seemingly intractable problems is central to his 1979 work *Philosophy and the Mirror of Nature*.

Answer: Richard **Rorty**

3. This neoconservative disciple of Leo Strauss is best known for his translation and commentary on Plato's *Republic* and for his 1987 *The Closing of the American Mind*.

Answer: Allan **Bloom**

17. Answer the following about neurons for ten points each.

1. This is the part of the neuron that carries impulses away from the cell body.

Answer **axon**

2. In myelinated axons, these unsheathed cusps allow the action potential to propagate by jumps.

Answer: the nodes of **Ranvier**

3. These glia provide myelination and create nodes of Ranvier in the central nervous system. They are supported by astroglia.

Answer: **oligodendrocytes** (or **oligodendroglia**)

18. Name the following German sociologists for ten points each.

1. Along with Weber and Toennies, he founded the German Society for Sociology. In his best-known paper, he wrote about how a money economy created specialized social activity and made relationships more impersonal.

Answer: Georg **Simmel**

2. In this dude's *The Idolatry of the State*, he defines the "we" relationship as the collective interest that exists within a group and the "not-we" relationship that exists between a clan and a stranger.

Answer: Franz **Oppenheimer**

3. While exiled in the U.S., he worked on his study "The Authoritarian Personality." After living in Hollywood, he argued that popular media kept capitalism dominant and made the population passive.

Answer: Theodor Weisengrund **Adorno**

19. Identify the following Romantic literary works from description for ten points each.

1. Mephistopheles makes a deal with God that he can corrupt this man, God's favorite human in this work by Goethe.

Answer: **Faust**

2. This autobiographical Byron narrative poem describes the travels of the titular figure, a bored, young aristocrat through foreign lands.

Answer: "**Childe Harold's Pilgrimage**"

3. She is the titular half-Native American, half-European heroine of an 1801 Francois de Chateaubriand novella that went through five editions in its first year.

Answer: **Atala**

20. Given a description, name the following Secretaries-General for ten points each.

1. Immediately before becoming Secretary-General, he was Vice President of the Socialist International, and is a former member of the International Commission of Jurists.

Answer: Boutros **Boutros-Ghali**

2. As a permanent representative from his country from 1964-1968, he was Chairman of the Committee on the Peaceful Uses of Outer Space, and while Secretary-General, he helped arrange talks between President Glafcos Clerides of Cyprus and Rauf Denkash.

Answer: Kurt **Waldheim**

3. He served as a Vice President of the General Assembly's fourteenth session, and chaired the UN Congo Conciliation Commission.

Answer: U **Thant**

14. Presidents don't always keep their Vice Presidents as running mates when seeking reelection. For ten points each...

1. What twentieth-century VP was the last one replaced with a new running mate, Bob Dole?

Answer: Nelson Aldrich **Rockefeller**

2. What other twentieth-century Vice President replaced his predecessor on the ticket and was subsequently himself replaced?

Answer: Henry Agard **Wallace**

3. This former governor of Maine, who succeeded John Breckenridge as Vice President, was replaced on the ticket after his term.

Answer: Hannibal **Hamlin**

15. Answer the following about parallelism in computation for ten points each.

1. This is the name for the shared memory or files that can cause race conditions when dealing with parallelism. It is necessary to protect it in order to insure mutual exclusion.

Answer: the **critical section** (accept **critical region**)

2. With a counter and two operations, down and up, this data structure protects critical sections by signaling a process or thread to sleep if a thread is already in the section and signaling the thread to wake up once the other has left.

Answer: a **semaphore**

3. This Dutch computer scientist developed the semaphore in addition to ALGOL and various other things. He didn't much care for GOTO.

Answer: Edsger **Dijkstra**

9. Name these people from the *Táin* for ten points each.

1. He went into exile in Connacht after Conchobar violated his word that Deidre and Noise would get safe passage back to Ulster. He is a lover of Medb.

Answer: Fergus mac Róich

2. This daughter of Medb and Aillil is used as bait to get men to fight Cuchulainn in single combat. She eventually kills herself in shame.

Answer: Findabair

3. This foster brother of Cuchulainn was accidentally killed by in a riverbed when he caught Cuchulainn's spear a bit too well.

Answer: Ferdiad

10. Given a description, name these characters from *Midnight's Children* for ten points each.

1. Born on the stroke of midnight, he explains "to understand me, you'll have to swallow a world."

Answer: Saleem Sinai

2. One of Saleem's uncles, he commits suicide after realizing the superficiality of Bollywood. Film industry... superficial? Inconceivable!

Answer: Hanif

3. Mumtaz's first husband and the Hunningbird's secretary, he meets Mumtaz in secret a couple times after she marries Amina Sinai.

Answer: Nadir Khan (accept either underlined part)

11. Identify these theorems from group theory that are all named after really famous dudes for ten points each.

1. This theorem states that, for any finite group, the order of the subgroup divides the order of the group.

Answer: Lagrange's theorem

2. A generalization of this famous theorem of elementary number theory says that, for any finite group, an arbitrary element raised to the order of the group is equal to the identity element.

Answer: Fermat's little theorem (accept Euler's totient theorem; prompt on "Fermat" or "Euler")

3. If a prime  $p$  divides the order of a finite group, then this theorem states that the group must have an element of order  $p$ .

Answer: Cauchy's group theorem

12. Name each of the following things from microeconomics with something in common for ten points each.

1. This is the set of all possible combinations of inputs 1 and 2 that are just enough to produce a given amount of output. For productions with fixed proportions, they look like L's.

Answer: isoquants

2. This family of parallel straight lines have as their common slope the price of an first input divided by the price of an output. Their graphs may be shifted up or down due to changes in the  $\pi$  factor.

Answer: isoprofit lines

3. These curves indicate Pareto efficiency when they are tangent to the frontier of the utility possibilities set.

Answer: isowelfare curves

13. Name these people portrayed by Andy Warhol for ten points each.

1. Warhol portrayed this famous 1950's and 60's sex symbol in numerous portraits, including ones entitled *Blue* and *Orange*. She committed suicide in 1962.

Answer: Marilyn Monroe (accept Norma Jean Baker)

2. Members of this band including John Cale were filmed by Warhol in his *Screen Tests* series.

Answer: The Velvet Underground

3. Probably the most famous of Warhol's "Superstars," she appeared in most of his films in the mid 60's until she understandably left Warhol to be with Bob Dylan. Sienna Miller is portraying her in the upcoming film *Factory Girl*.

Answer: Edie Sedgwick

5. Given a description, name the following early American civilizations for ten points each.

1. Their name comes from the Nahuatl for “rubber people” and they were the first known civilization to play *Ullamalitzli*, known to insiders like Matt Weiner as the “rubber ball game.”

Answer: the **Olmecs**

2. With their capital at Monte Alban, they called themselves Ben-Zoa, or “cloud people” and later fused with the Mixtecs.

Answer: the **Zapotecs**

3. They may have been refugees from the Teotihuacan people. In the twelfth century, were destroyed by various attacking groups, including the Chitimecs.

Answer: the **Toltecs**

6. Answer each of the following about a certain purely quantum mechanical quantity for ten points.

1. This mysterious quantity may be thought of as the inherent angular momentum of a particle.

Answer: **spin**

2. This set of three two-by-two matrices is proportional to the spin operators for spin-one-half particles in the natural basis with constant of proportionality  $\hbar$  over two.

Answer: the **Pauli** spin matrices

3. If the spin of a particle is known in one direction exactly, then measuring this quantity, which can be measured exactly simultaneously, provides maximal localization of the spin eigenfunction.

Answer: the **square** of the spin (or spin **squared** or angular momentum **squared**, etc.)

7. Identify these things related to scales for ten points each.

1. The major scale can be divided into two of these, each consisting of a whole tone, whole tone, and semitone in that order.

Answer: diatonic **tetrachords**

2. The whole tone corresponds classically to this type of interval.

Answer: a **major second** (prompt on “second”)

3. This term is often used to describe the first note in a scale. The scale is defined by the relationship of the notes to this.

Answer: the **tonic** of the scale

8. Name the following philosophers for ten points each.

1. He classified people into two animal groups: people who knew one big thing were hedgehogs, and people who knew many little things were foxes.

Answer: Isaiah **Berlin**

2. He wrote works which criticized deists and his “Sermons on Human Nature” addressed aspects of living as a Christian. He declined the position of Archbishop of Canterbury in 1747.

Answer: Joseph **Butler**

3. Her former job at an auto factory and her experiences during World War II led to 1955’s *Oppression and Liberty*. Some of her notable actions include refusing to eat more than the rationed amounts in France and having mystical experiences.

Answer: Simone **Weil**

### **The Illinois Open 2006: Spite, Burn**

**Bonuses by Illinois (Steven Canning, Micah Hodosh, Kelly Tourdot, Donald Taylor, Scott Green, Sulee Cao) feat. California (Mary Huang, Steve Kaplan, Paul Lujan, Kha Lai, Ray Luo, Jay Turetzky, Dwight Wynne) and “Illinois” (Sudheer Potru and Andrew Ullsperger)**

1. A follower of Isaac Butt and William Shaw, he became president of the Land League and sponsored the Land Act, first opposing then supporting William Gladstone. For ten points each...

1. Name this Irish statesman who pushed for Home Rule, but saw the split of his party following the revelation of his affair with Kitty O'Shea.

Answer: Charles Stewart **Parnell**

2. This journalist for *The Times* forged letters implicating Parnell in the murders of Lord Cavendish and Secretary Burke at Phoenix Park, then committed suicide when Parnell's libel suit instigated an investigation that discovered the fabrication.

Answer: Richard **Piggott**

3. When Parnell urged boycott against landlords in 1881, he and his followers were jailed at this prison, which later gave its name to a so-called treaty between Parnell and Gladstone that softened the former's "no-rent" policy.

Answer: **Kilmainham**

2. Name these works by Moliere for ten points each.

1. The suitors of Madelon and Cathos, sisters of a provincial town who admire the extravagance of Parisian life, send their valets to make a mockery of them.

Answer: *Les **precieuses ridicules*** (or *The **Ridiculous Snobs***)

2. The titular coward, who appears again in *The School for Husbands* and *The Forced Marriage*, finds the portrait of Lelie, the lover of Clelie, and mistakes it for a fictional rival for his wife's love. He is the father of Lucinde in *Doctor Love*.

Answer: ***Sganarelle** ou le cocu imaginaire* (or *The **Imaginary Cuckold***)

3. Horace asks Arnolphe to hide Agnes, not knowing that Arnolphe has arranged to have Agnes brought up in innocence for him to marry. Fortunately, Enrique, the dad of Agnes, arranged to have Horace marry Agnes instead.

Answer: ***L'ecole des femmes*** (or *The **School for Wives***)

3. Identify these aldohexoses for ten points each.

1. This aldohexose is metabolized during cellular respiration and is the main product of photosynthesis. Its L-isomer is not active in biological systems.

Answer: **glucose**

2. Glucose, when combined with this monosaccharide, forms the disaccharide lactose.

Answer: **galactose**

3. An epimer of glucose, this monosaccharide differs from glucose by inversion of the chiral center on carbon four. This is often used to tag proteins destined for destruction. That *that*, proteins!

Answer: **mannose**

4. Identify the following Titans for ten points each.

1. He produced the animals of the world but also aided the introduction of the evils by accepting Pandora as a gift.

Answer: **Epimetheus**

2. He was an early sun god and is the father of Helios, Selene and Eos.

Answer: **Hyperion**

3. The mother of Athena, Zeus ate her after hearing the prophecy that her second child would unseat him.

Answer: **Metis**

18. Found in unusually large quantities in Brazil nuts, this chemical is an essential nutrient for human life, where it is a component of antioxidant enzymes. Discovered in 1818 by J. Berzelius, this metalloid is commonly used in photoelectric cells and in the vulcanization of rubber. It occurs naturally in a gray metallic form, a red crystalline form, and an amorphous form that is black and glassy. A chalcogen, it is chemically most similar to sulfur and tellurium. Its name comes from the Greek for the Moon, For ten points, what is this chemical element, number 34 on the periodic table?

Answer: selenium

19. In some stories, this figure is also known as Vaidehi or Mithili. Born from a furrow in the earth thanks to Bhumidevi, this mother of the twins Lava and Kusha is at one point rescued by the old bird-king Jataayu. The adopted daughter of King Janaka, she is imperiled by Soorpanakha as she chases a magical deer that is actually Mareecha. Usually considered to be an avatar of Lakshmi, her fears are assuaged by a faithful monkey who sings of the exploits of Lakshmana and his elder brother, her husband. For ten points, name this figure from Hindu myth who is captured by Raavana and eventually rescued by her husband Rama.

Answer: Sita

20. One of the exceptions to the general prosperity of this period was a series of riots over the inflated price of rice, which involved over two million people and forced an end to the administration of Teruchi Masatake. Meningitis in infancy had left the emperor physically and mentally debilitated, and the authority exercised in the previous period by the emperor and his advisers the *genro* passed to the Diet. Other significant events included the passage of the General Election Law, which gave suffrage to all men over the age of 25, and the Great Kanto Earthquake which killed an estimated 100 thousand and almost completely destroyed Tokyo. Lasting from 1912 to 1926, for ten points, name this period of Japanese history occurring between the Meiji and Showa periods.

Answer: Taisho period

21. He immortalized a small Irish village in a poem which contains “The sheltered cot, the cultivated farm, The never-failing brook” and “the busy mill”, and in his first collection he wrote that “At gold’s superior charms all freedom flies / The needy sell it, and the rich man buys” in *The Traveller*. In his most famous play, Tony Lumpkin plays a trick on the protagonist and his friend, convincing them to stay at his parents’ place which they think is an inn. For ten points, what Irish author penned such works as *The Deserted Village*, *She Stoops to Conquer*, and *The Vicar of Wakefield*?

Answer: Oliver Goldsmith

12. Joseph Hopkinson's "Hail Columbia!" was a popular anthem written in response to this event, which was later blamed on mistaken intentions between the representatives of the Directors and certain petitioners. Members of the Republican Party claimed that the entire situation was a hoax created by Federalists to incite war. It occurred in October, 1797 when John Marshall, Charles Cotesworth Pinckney, and Elbridge Gerry were sent by John Adams for talks with the Minister of Foreign Affairs of France, Talleyrand. For ten points, identify this cause of some international strain when some shady dealings were proposed by three code-letter-designated French diplomats.

Answer: the XYZ affair

13. This work certainly alludes to *The Book of Urizen*, *Prometheus Bound*, and several works by its author. First printed in a 1920 edition of *The Dial*, it is notably anthologized in *Michael Robartes and the Dancer*. Excised lines include "And there's no Burke to cry aloud no Pitt," and "The good are wavering, while the worst prevail." A 1968 collection of essays by Joan Didion and a work by Robert Bork about the moral decline of American society are titled from its final line, "Slouches towards Bethlehem to be born?" For ten points, name this 1921 William Butler Yeats poem, a line of which is the source of the title of Chinua Achebe's most famous work.

Answer: "The Second Coming"

14. The *Chicago Tribune* notably supported this person as a candidate for Postmaster General and he tried to get Edward Bates the 1860 Presidential nomination, but failed. He became a Radical Republican when Caleb Smith was appointed as Postmaster and Lincoln initially opposed his candidacy for Speaker of the House. He left for California on the day of Lincoln's assassination and his interest in developing the west would come back to haunt him. For ten points, name this Vice President who was implicated, but not charged, in the Credit Mobilier Scandal.

Answer: Schuyler Colfax

15. This statement may be proved by positing an enumeration that establishes a bijection between the natural numbers and statements in first order predicate logic, then noting that a self-referential statement must exist. A corollary of this theorem is that any formal system can prove its consistency if and only if it is inconsistent, assuming it contains Peano's postulates. It was meant to address questions left unanswered by the monstrous text *Principia Mathematica*, but neither Russell nor Whitehead was happy with the answer. For ten points, identify this twentieth-century theorem of mathematical logic that established the existence of statements in number theory that are non provable.

Answer: Gödel's incompleteness theorem

16. This figure's next-door neighbor Ackley lacks good hygiene. He himself often carries around a baseball glove upon which Allie wrote poems before he died. At the Edmont Hotel, he introduces himself as the twenty-two-year-old Jim Steele and gets his nose busted by the pimp Maurice over five dollars. Watched creepily by his former teacher Mr. Antolini at one point, his red hunting hat symbolizes his immaturity. He is ambivalent about his attraction to Sally Hayes, but wants desperately to protect the childish innocence of his sister Phoebe. For ten points, name this sixteen-year-old former junior at Pencey Prep, the protagonist of a certain novel by J.D. Salinger called *The Catcher in the Rye*.

Answer: Holden Caulfield (accept either underlined part)

17. One of the children of this author of the Wallingford Manifesto rival was known as "of the Tower" and went on to marry a descendent of Robert the Bruce. A rival of Piers Gaveston and Hugh le Despenser, she exchanged a marriage contract for her daughter Eleanor of Woodstock to William III of Hainaut in exchange for naval assistance. She joined the Poor Claires at the end of her life. Geoffrey of Paris attests to her great beauty, which makes her husband's neglect of his conjugal duties puzzling, but the latter may partially explain her dalliances with Roger Mortimer, who helped her overthrow her husband for her son. For ten points, name the wife of Edward II and mother of Edward III of England; a princess of France.

Answer: Isabella of France

6. An extant preparatory sketch for this work is sometimes displayed as *Mounay ben Sultan*. In this painting, a mirror at top-left hangs next to a niche above a door, partly revealing an inaccessible corner of the room. The best-known work of author Assia Djebar is entitled after this painting. Pablo Picasso painted a series of interpretations of this work in the 1950's. One of the painter's most successful compositions, he showed a smaller variation of it at the 1845 Salon. In it, a black slave draws a curtain to reveal the three titular people to the viewer. The painting is allegedly based upon an actual visit to an Arab household during a 1832 trip to North Africa. For ten points, name this 1834 painting by Eugene Delacroix.

Answer: **Women of Algiers** in their Apartment (accept *Les Femmes d'Alger dans leur appartement*)

7. In one of his works, Rebecca helps a power-hoarding "prophet" blackmail Ananias, a professed arsonist. In one of his essays, he notes that the West should pay for its actions against his continent in *The Burden of Memory, the Muse of Forgiveness*. The sacrifice of the stranger Eman in place of Ifada is the subject of his *The Strong Breed* while his poems in "siege against humanity, employing time to drill through to his sanity" are collected in *The Man Died* and *A Shuttle in the Crypt*. The westernized teacher Lakunle and the seduction of Sidi by the village elder Baroka are the subjects of his most famous work, but he also wrote *A Play of Giants*, *Kongi's Feast*, and *Jero's Metamorphosis*. For ten points name this Nigerian dramatist who wrote *The Lion and the Jewel*.

Answer: Wole **Soyinka**

8. Hugh Johnson, Lawrence Coburn, and Glenn Andreotta received the Soldier's Medal for action here, though only American injury occurred when a soldier shoot himself in the foot. The operation culminating in this began as action against the Forty-Eighth Battalion; three platoons were sent out on a "search and destroy" mission. The third defended the landing zone and the second headed to Binh Tay, but the actions of all would be the target an attempted cover-up. In spite of this, Lieutenant William Calley was convicted of war crimes for his role. For ten points, name this March 16, 1968 slaughter of Vietnamese peasants in the namesake hamlet.

Answer: the **My Lai** Massacre

9. This person's *Madame Pompadour* depicts a woman in a room with red and gold paneling wearing a black feathered hat. His *Woman of Algiers* shows a tan figure with gold earrings, a bead necklace, and a suit, while his *La jeune bonne* is usually given as *The Serving Girl*. He was fond of depicting fellow artists as in *Beatrice Hastings*, *Juan Gris*, *Diego Rivera*, and *Pablo Picasso*, but he was perhaps more fond of depicting the love of his life as in *Red Shawl*, *with White Collar*, and *Left Arm Behind Head* all feature Jeanne Hébuterne. His nudes include the *Nu couche* series. For ten points, name this Italo-Jewish painter whose mature style is a elegant blend of cubism and his own distinct figural style, which included his trademark blank eyes filled with blocks of color.

Answer: Amedeo **Modigliani**

10. This work discusses the bees of the bees of Aristaeus and how they came back to life through the intervention of his mother Cyrene in the most important sections of its fourth and final book, which also discuss Orpheus and Eurydice because they're about myths of death and resurrection. The writer's thanks his patron and dedicatee in book one for ending a recent civil war. Book two contains the famous paean to the crops and heroes of Italy in addition to being a guide to viticulture. For ten points, name this first-century BCE poetic guide to agriculture written by Virgil.

Answer: the **Georgics**

11. In the 1980's, Kauffman and Jones showed that considering the partition function of this leads to deep connections with knot invariants. It has been used in biology to model both neural networks and flocking birds, but it originally found use in statistical mechanics. Proposed in 1924 by its namesake, it led to an *a priori* calculation of the Curie temperature as a model for the domains of a ferromagnet. For ten points, name this model that describes the behavior of systems in which elements change their states in steps to conform to nearby elements.

Answer: the **Ising** model



### **The Illinois Open 2006: Spite, Burn**

**Tossups by Illinois (Steven Canning, Micah Hodosh, Kelly Tourdot, Donald Taylor, Scott Green, Sulee Cao) feat. California (Mary Huang, Steve Kaplan, Paul Lujan, Kha Lai, Ray Luo, Jay Turetzky, Dwight Wynne) and "Illinois" (Sudheer Potru and Andrew Ullsperger)**

1. A claim is made that this being choked on his own learning, but the claimants are eventually caught killing Gillingr and his wife. Gunnlod is made to guard his remains, but one of Baugi's farmhands eventually changes into a snake and steals them anyway, much to the chagrin of Suttung. Created during the cementing of a peace in a ritual that required all the gods to spit in a jar, his blood was stored in two cauldrons and a jar were used to store his blood, which Fjalar and Galar fermented with honey. For ten points, name this Norse wise man whose blood was used to make the Mead of Poetry.

Answer: Kvasir

2. This person created sketches include Professors Wright, Williams, and Gerschenkron. He worked at the University of Kiel before going to China for a year as an advisor to the Ministry of Railroads. He had something of a passion for brook trout. In a paper of his, he noted that U.S. exports were relatively more labor-intensive than imports, which contradicted prevailing economic thought at the time. The purpose of his input-output analysis is to find out how much production should increase in sectors across the economy to reach the final demanded quantity for consumption, investment and exports. For ten points, name this economist with a namesake paradox; the winner of the 1973 Nobel in Economics.

Answer: Wassily Leontief

3. Commentaries on this ruler's empire were collected by Megasthenes, the Greek ambassador, and make up his book *Indica*. He drove out Seleucus I when he was only sixteen and the *Arthashastra*, a guide to power, was written by his advisor Kautilya. Some sources claim that he converted to Jainism at the end of his life. He definitely conquered Punjab and Kandahar and was succeeded by his son, Bindusara. For ten points, name this Indian ruler, the founder of the Maurya Empire and the first man to rule over a united India.

Answer: Chandra Gupta Maurya

4. The diameters of objects in this region seem to obey a power law distribution with exponent 4. It contains a namesake cliff that is probably caused by an orbital resonance with Neptune. Two groups of bodies in this region exist: those in circular stable orbits and those in a highly eccentric orbits that are inclined to the plane of the solar system. The first object discovered here, QB1 orbits the sun at a distance of about 44 AU. A subject of current research is it question whether bodies in this region extend to the inner boundary of the Oort cloud. For ten points, identify this ring of small objects that are named for a Dutch-American astronomer and that revolve around the sun beyond Neptune's orbit.

Answer: the Edgeworth-Kuiper belt

5. During this person's junior year at UCLA, he averaged 25.9 points and sits third on their all-time scoring list. In the NBA Playoffs, scored 17 of his 34 points in the fourth quarter in Game 6 of the 2000 Eastern Conference Finals to win the series. In Game 5 of the 1994 Eastern Conference Finals, he scored 25 of his 39 points in the fourth quarter, and in game 1 of the 1995 Eastern Conference Semifinals, he scored 8 points in 8.9 seconds. For ten points, name the recently retired sharp-shooting Pacers guard who, during the 1994 Conference Finals, taunted noted Knicks fan Spike Lee with a choking gesture.

Answer: Reggie Miller