

19. Name these states of Mexico for ten points each.

1. This is the largest Mexican state. It is bounded on the north by Texas and to the east by Ciudad Juarez.

Answer: **Chihuahua**

2. This state of southeast Mexico has been the site of a civil war between the Mexican government and rebels in the Zapatista Army of National Liberation.

Answer: **Chiapas**

3. Bordered by the states of Chiapas, Puebla, Guerrero, and Veracruz, this state was the home of the Zapotec and Miztec peoples, as well as the birthplace of Benito Juarez.

Answer: **Oaxaca**

20. Name these concepts related to monopolies for ten points each.

1. This is the practice of selling a given product at more than one price when the price differences are not justified by cost differences.

Answer: price **discrimination**

2. This results when a firm's actual cost of producing any output is greater than the lowest possible cost of producing it. It increases as the amount of competition decreases.

Answer: **x-inefficiency** (prompt on "inefficiency" or "failure")

3. In a regulated monopoly, the fair-return price is the price that equals this amount.

Answer: **a**verage **t**otal **c**ost

15. Name these rulers of ancient Africa for ten points each.

1. When this leader of Mali passed through Cairo in 1324, the five hundred slaves he led carried so much gold that it created hyperinflation in the economy.

Answer: Mansa Kankan Musa I

2. This leader of Songhai, the successor of Sunni Ali Ber, instituted a system of bureaucratic government in the modern Sudan and established standardized trade measures and regulations.

Answer: Askia Mohammed I

3. This Mali leader was victorious at the Battle of Kirina in 1240.

Answer: Sundiata Keita

16. Name these concepts relating to empiricism for ten points each.

1. Introduced by John Locke, this concept is a model for the human mind as a blank slate upon which experiences leave their mark.

Answer: tabula rasa

2. Hume contrast these with ideas in *An Enquiry Concerning Human Understanding*. He holds that ideas refer to memories and imaginings, while these refer to sensations.

Answer: impressions

3. Berkeley defined these properties to be those in which exist in the external world in the same way in which humans perceive them. He makes certain claims stemming from their existence.

Answer: primary qualities

17. For ten points each, name these figures in a recent political and military controversy.

1. This leader of Hezbollah gained respect from many in Lebanon and international condemnation during the recent Israeli invasion.

Answer: Sheikh Sayedd Hassan Nasrallah

2. This Lebanese Prime Minister repeatedly appealed to the United Nations for a cease-fire.

Answer: Fouad Siniora

3. This controversial figure from American politics unsuccessfully lobbied for the release of the captured Israelis soldiers in an unsanctioned visit to the Middle East.

Answer: Jesse Jackson, Sr.

18. Name these knights of the Round Table for ten points each.

1. This traitor was killed by King Arthur at the Battle of Camlann.

Answer: Sir Mordred

2. This knight defeated the huge knight Yder in battle, but is perhaps most famous for his love affair with Enid.

Answer: Sir Geraint

3. This knight was assisted by Sir Gonemans in defeating a Red Knight and was later assumed into Heaven.

Answer: Sir Percivale

10. For ten points each, name these concepts relating to mathematical rings.

1. This is a commutative ring with unity and no zero-divisors.

Answer: an integral **domain**

2. This is a subring A of a ring R such that the product of any element in A with any element in R is in R.

Answer: an **ideal** or R

3. This is a mapping between rings that preserves both addition and multiplication.

Answer: a ring **homomorphism** (do not accept “isomorphism”)

11. Name these things relating to the hajj for ten points each.

1. This ritual consists of walking around the Kabaa seven times, four times at a fast pace and then three at a more leisurely pace.

Answer: a **tawaf**

2. This garment consisting of two sheets of white, un-hemmed cloth is required of all male participants in the hajj.

Answer: an **ihram**

3. While it is not required of hajj participants, many choose to reenact Muhammad’s journey from Mecca to Medina, which is known as this.

Answer: the **Hegira** (or **Hijra** or **Hijrah**)

12. Name these things about medieval Japanese literature for ten points each.

1. This Buddhist monk explored the traditional Japanese attitudes toward life and art in his collection *Tsurezuregusa* or *Essays in Idleness*.

Answer: Yoshida **Kenko** (or Urabe **Kaneyoshi**)

2. This war story by an unknown author describes the rise and fall of the Taira family.

Answer: *The **Tale of the Heike*** (or ***Heike monogatari***)

3. The authoritative form of *The Tale of the Heike* was recited by this blind priest around 1371.

Answer: **Kakuichi**

13. Name these battles of the War of 1812 for ten points each.

1. In this battle of 1814, the American army under General Jacob Brown fought the British army under Gordon Drummond to a draw. It was the single bloodiest battle ever fought on Canadian territory.

Answer: the Battle of **Lundy’s Lane**

2. This battle, which took place in September, 1814, saw the American forces under Thomas Macdonough beat back a British force led by George Prevost. It stopped the final British invasion of the northern states during the war.

Answer: the Battle of **Plattsburgh**

3. In this battle on July 5, 1814, Jacob Brown’s American forces defeated Phineas Rall’s British troops. The American troops in this battle were prepared by General Winfield Scott’s “Camp of Instruction.” It was the first victory for the Americans over an equal-sized British force.

Answer: the Battle of **Chippawa**

14. Name these ancient comedies from brief plots for ten points each.

1. In this Plautus comedy, Phoenicium, the love of Callidorus, is sent into slavery for only 2,500 drachmae.

Answer: **Pseudolus**

2. This work of Terence, revolving around some confused parentage, notes of women “when you will, they won’t.”

Answer: **Eunuchus** (or *The **Eunich***)

3. This work about an ill-tempered douchebag is the only extant complete work of Menander.

Answer: **Dyskolos** (or *The **Grouch***)

5. Name these post-World War I treaties for ten points each.

1. This agreement with Hungary was delayed because of the communist revolution there in 1919. It led to Hungary being an almost purely Magyar nation.

Answer: the Treaty of **Trianon**

2. In this treaty of November 27, 1919, Bulgaria lost territory to Greece and Yugoslavia and had limits placed on its military.

Answer: the Treaty of **Neuilly**

3. This treaty with Turkey cost it most of its territory in the Middle East and Near East. Atatürk renegotiated its terms with the Treaty of Lausanne three years later.

Answer: the Treaty of **Sevres**

6. Name these works of a certain author for ten points each.

1. In this short story, a mysterious Swede picks a fight with Pat Scully's son, then gets himself killed in a bar fight.

Answer: "**The Blue Hotel**"

2. In this novel, the title character falls in love with the bartender Pete, gets dumped by him, and then becomes a prostitute.

Answer: **Maggie: A Girl of the Streets**

3. This short story describes four men's experiences after the sinking of the steamer *Commodore*.

Answer: "**The Open Boat**"

7. Name these works of Caravaggio for ten points each.

1. This painting pictures the moment when the resurrected Jesus, disguised, reveals himself to his disciples Luke and Cleophas.

Answer: **Supper at Emmaus**

2. This painting shows a holy woman, captured by the Huns, who was put to death after she refused to marry their king.

Answer: *The* **Martyrdom of Saint Ursula**

3. This painting a boy in black playing a game with a boy in a brown doublet who has a feather in his cap. A man whispers to the first boy.

Answer: *The* **Cardsharps**

8. Identify these concepts of macroevolution for ten points each.

1. In this type of natural selection, one extreme is favored over its opposite, and the average moves toward the favored extreme.

Answer: **directional** selection

2. This is a macroevolutionary trend in which a branching occurs, so that one lineage gives rise to two or more lineages. Ernst Mayr emphasized it as a major macroevolutionary pattern.

Answer: **cladogenesis**

3. This is a gradual change in a single lineage. Eventually, descendants become radically different from their ancestors. It may be produced to directional selection over long periods of time.

Answer: **anagenesis** (or **phyletic change**)

9. Name these figures from the Watergate scandal for ten points each.

1. This man served as the campaign director of the Committee to Reelect the President. He was the first Attorney General to be convicted of a crime or imprisoned.

Answer: John Newton **Mitchell**

2. This man served as the White House Counsel to President Nixon. He eventually became the star witness of the prosecution.

Answer: John Wesley **Dean** III

3. This man was the first prosecutor of the Watergate scandal; he was eventually sacked during the Saturday Night Massacre.

Answer: Archibald **Cox**, Jr.

The Illinois Open 2006: Spite Burn
Bonuses by Local Chicagoans (Tim Hartman)

1. For ten points each, identify the following concepts of electrostatics.

1. In a region with no charge, the electrostatic potential satisfies this type of equation because the operator sharing its namesake with this equation operating on the potential is zero.

Answer: a **Laplace** equation

2. To use this technique, one makes the ansatz that a function of several variables is the product of several functions of only one. The Laplace equation is especially amenable to solution by this method.

Answer: separation of variables

3. This technique can be used to find the potential of any charge distribution near a grounded conducting plane by introducing opposite charges on the other side of the plane.

Answer: the method of **images**

2. Name these works of Prokofiev for ten points each.

1. In this Prokofiev opera, a young prince, cursed by a wicked witch, is forced to journey to distant lands in search of several princesses.

Answer: *The Love for Three Oranges*, opera, **Op. 33** (accept either underlined part)

2. In this Prokofiev opera, Renata falls in love with the title character, then enlists the help of Ruprecht to find him. The title character is later identified with Count Heinrich.

Answer: *The Fiery Angel*, opera, **Op. 37** (accept either underlined part)

3. The 1958 British movie *The Horses' Mouth* is based on this Prokofiev work. It features a fictitious war hero who ultimately becomes a victim of his own success.

Answer: *Lieutenant Kijé*, film score and suite for orchestra, **Op. 60** (accept either underlined part)

3. Geoffrey Chaucer wasn't the only great writer of his age. For ten points each, name these contemporaries of Chaucer.

1. This man wrote the long religious allegory, *The Vision of Piers Plowman*.

Answer: William **Langland**

2. This Chaucer contemporary wrote *Mirror of the Man* but is most famous for the *Confessio Amantis*.

Answer: John **Gower**

3. This woman writer's autobiography tells of her instructions on how to lead a holy life that she claimed to have received from the Virgin Mary.

Answer: Margery **Kempe**

4. Identify these things relating to an important astronomical law for ten points each.

1. This law states that the rate at which a galaxy recedes from us is directly proportional to its distance from us.

Answer: **Hubble's** law

2. To one significant figure, the Hubble constant that appears in Hubble's law has this value in kilometers per second megaparsec. Note that any within a range of values is acceptable

Answer: about **65** (accept any answer between **40** and **90**, inclusive)

3. This American astronomer, a colleague of Percival Lowell, discovered that every spiral galaxy has a red-shifted spectrum in 1912.

Answer: Vesto Melvin **Slipher**

18. One of this figure's first important papers discussed "Beating Fantasies and Daydreams." During a stint as General Secretary of the International Psychological Association, this scientist began work on the field that would later make yield fame. A Feud with Melanie Klein followed a move to London; this nearly caused a split in the British Psycho-Analytical Society, but this crisis was averted by an agreement to study both women's theories. Late in life, she regularly traveled to the United States and, at Yale Law School, she published *Beyond the Best Interests of the Child*. For ten points, name this psychologist known for *The Ego and Mechanisms of Defense* and other contributions to child psychology.

Answer: Anna Freud (prompt on "Freud")

19. This person's visits to the residence of John Oxenbridge inspired "Bermudas," while he imitated the model of Catullus in describing the death of a pet in "The Nymph Complaining for the Death of Her Fawn." This poet's "A Dialogue Between the Soul and Body" gives a clear victory to the soul. Damon is described in his four "Mower" poems and he set stable traditional order and ancient right against providential revolutionary change in his most complex political poem, "An Horatian Ode Upon Cromwell's Return from Ireland." For ten points, name this English poet who began his most famous poem with the line "Had we but world enough, and time;" the poet of "To His Coy Mistress."

Answer: Andrew Marvell

20. These chemicals undergo halogenation in the Hell-Volhard-Zelinsky reaction and form acyl chlorides when they react with thionyl chloride. These compounds react intramolecularly with hydroxyl acids to form lactones. Primary alcohols form them when they are oxidized by chromic acid. Among their derivatives are nitriles and acid anhydrides. In the presence of an acid catalyst, they react with alcohols to form an ester and water. This class of organic compounds has the form RCOOH. For ten points, name this class of compounds, the simplest of which was formed by distilling ants.

Answer: carboxylic acids

21. This person's trip to Vienna led him to compose *La Danza* in honor of the birthday of future emperor Leopold II. The first works in the genre for which he is best known, *La Caduta de Giganti* and *Artamene*, were written while he was in London, but met with little success; however, his disgust with Italian conventions led him to compose the ballet *Don Juan*, which made him an instant success. A few months after his death in 1787, Salieri honored him with a performance of his *De profundis*. He had earlier taken great advantage of the prominence of former pupil Marie Antionette, who helped him land a contract with the Paris Opera. For ten points, name this German composer of such French operas as *Alceste*, *Iphigenie*, and *Orpheus and Euridice*.

Answer: Christopher Willibald, Ritter Von Glück

12. Analysis of it caused Robert Gordon of Northwestern to develop the Triangle Model, which corrects it for supply shocks. It illustrates the classical principle that, in the short term, if more investment goods are purchased or if expenditures are increased, the price level will rise because real output must expand. The natural-rate hypothesis implies a cut-off for the relationship that it purports to show; other exceptions to it can be noted by the fact that it fits U.S. data from the 1960's, it fails for those from the 1970's and '80's because it cannot account for stagflation. This curve from economics shows an inverse relationship between the rate of unemployment and rate of inflation. For ten points, name this curve named for a New Zealand-born economist.

Answer: the **Phillips** curve

13. Linearized examples of these may be derived by setting the D'Alembertian of a metric perturbation to zero. Symmetric disassembly of a symmetric system will yield none. These phenomena seem to explain Hulse-Taylor systems' inspiraling. Primitive detectors for them include systems of Weber bars, while modern experiments searching for them include LISA. Support for the existence of these phenomena is provided by 1974 data from UMass as these seem to show the decay of the orbit of a binary pulsar. They may be understood as traveling disturbances in the curvature of space-time and should travel at the speed of light according to general relativity. For ten points, name these as-yet undiscovered phenomena that LIGO is searching for; radiation resulting from changes in the strength of a gravitational field.

Answer: **gravity waves** (or **gravitational waves**)

14. This figure was saved late in life by two termites who ate through the ceiling his prison cell. This person's brother benefited from his exploits, receiving a wife when he cured the daughters of Protius of Tiryns and another, Pero, when he helped Neleus. Another myth says that Bias received one third of a kingdom after this seer healed a tree nymph with the help of vultures. The father of Mantius, his servants killed a pair of snakes, after which he buried them and raised their young; these later licked his ears, blessing him with the gift of prophecy. For ten points, name this famed seer and physician of Pylos.

Answer: **Melampus**

15. Salisbury and Ross elucidated their biosynthesis in 1992. Some phenylurea compounds can function as these. A major example of the more common variety was first discovered at the University of Wisconsin in 1964 when a team lead by D.S. Leathem isolated zeatin from corn seeds. At the cell level, they are transported by purine transporters, while they are rapidly transported in the xylem stream at the plant level. Synthesized in meristematic cell, they are released when they have enough minerals and water to support both themselves and any dependent cells. They are necessary for the formation of the chloroplast and they interact with auxins to determine the differentiation of meristematic tissue. For ten points, name these plant hormones that stimulate cell division.

Answer: **cytokinins**

16. One of the motivations of the protagonist in this work is the sight of Mildred Douglas in a white dress. A trip to Fifth Avenue results in the main character being ignored by a crowd leaving church, glaring pugnaciously at a top-hatted gentleman, and mocking the mug of an old lady. Paddy longs for the old days, while Long encourages the main character in his quest to get revenge on the higher classes, but Robert Smith pursues a different path altogether. For ten points, name this play about the degeneration of Yank, into a lower form of life; a work of Eugene O'Neill.

Answer: *The* **Hairy Ape**

17. At one point in this figure's life, he resided in Boston's oldest restaurant, the Union Oyster House. In 1785, he was named Colonel of the Fourteenth Regiment of Dragoons, in which capacity he fought at the Battle of Valmy, after which an interview with Danton led him to be promoted to Lieutenant General. His involvement in the treason of Dumouriez led to his exile, which lasted for about thirty-seven years. His reputation was tarnished by the unpopularity of his minister Guizot, which led to riots in Paris on February 22, 1848. For ten points, name this King of France who took over from Charles X in 1830, and was known as "the citizen king."

Answer: **Louis-Philippe** of France, duc d'Orléans (accept **Citizen King** or **Roi Citoyen** before it's mentioned)

6. In this work, the Curtis Hartman regularly spies through the window at the local Presbyterian Church, checking out Kate Smith. Doctor Parcival's philosophy states that "everyone in the world is Christ and they are all crucified." In the opening chapter, an old man describes such triads of truth as virginity, passion, wealth and poverty, thrift, and profligacy in his "Book of Grotesques." The main character appears first in the story "Hands" and then again in nearly every other story in the novel. For ten points, name this novel that describes the coming-of-age of George Williard in a provincial Midwestern town; the most famous work of Sherwood Anderson.

Answer: Winesburg, Ohio

7. This figure's dissertation on "Nostalgia and Crime" shortly preceded his taking a position under Nissi that he obtained only because he agreed to work for free. The early lectures "On World Views" effectively foreshadow the much later *The Perennial Scope of Philosophy* as both works seek to proscribe the roles of philosophy and science. This thinker's *On Truth* is an attempt at a systematic philosophy of existence, while his *The Question of German Guilt* confronts Hitler. His formulation of a concept with a name translated "transcendence" led many contemporaries to classify him as a monist, though his rigid insistence on the value of personal freedom seems to belie this, rendering him an existentialist. For ten points, name this German philosopher is also known his work in psychiatry, especially *General Psychopathology*.

Answer: Karl Theodor Jaspers

8. One major issue with the use of these structures can be alleviated with objects called sentinels. Logarithmic amortized performance for the non-constant operation on these can be obtained by creating a parallel skip structure. STL implementations of these containers have one to three references, but never more than one value. These are fundamental to Scheme, which comes with them built-in. Developed by the RAND Corporation in the 1950's for their Information Processing Language, they were used to solve the problem of machine language for natural language processing. They have singly- and doubly- varieties. For ten points, what is this data structure of computer programming; a set of items organized sequentially in which each element points to the next.

Answer: linked lists (prompt on "list")

9. In this conflict, one side's navy under Williams executed a highly successful blockade on the lone port of the opposing side. Early battles included those at San Francisco and Chipana. A later battle was important in spite of seeing only 1,474 casualties and took place at Arica. With tensions running high due to conflicting claims about Charcas, this war finally broke-out when a retroactive tax on a nation led by Anibal Pinto was leveled by Hilarioin Daza. It was fought in part over valuable nitrate deposits. For ten points, name this 1879 to 1884 war that saw Chile defeat the joint forces of Bolivia and Peru near the coast of a certain ocean.

Answer: the War of the Pacific

10. The second-to-last of these works is a burlesque of a descent the cross. A scroll with a tree on it and snuffbox feature prominently in the first. Background elements of the second include a picture of Cupid playing bagpipes and a Methodist petitioning heaven. The macabre third finds a wigged head looking at a skeleton that is groping a cadaver; this third engraving, *The Scene with the Quack*, shows a girl whose facial expressions show that she is not as pure as she seems. In the final painting, *The Death of the Countess*, the execution of the male protagonist leads to the suicide of his recent wife. For ten points, name this set of six paintings about the follies of marriages of convenience; a work of William Hogarth.

Answer: Marriage à la Mode

11. Minor characters in this work include The Colonel, a famous soldier, and Mrs. Belle, with whom the main character has a brief affair. The main character has told his wife the same story every day for all the seventy-five years they've been married. The orator finally arrives at the end of the play to deliver the main character a promised speech, but it becomes clear from his guttural posturing that he is mute. For ten points, name this play, in which the title pieces of furniture seat numerous invisible and mute people; a tragic farce by Eugène Ionesco.

Answer: *The* Chairs (or *Les* Chaises)

The Illinois Open 2006: Spite Burn
Tossups by Local Chicagoans (Tim Hartman)

1. Toward the end of this five-hundred-year period, Userkhat initiated reforms that catalyzed instability. Rulers during its golden age included Sneferu, Djedefra, and Khafra. At the beginning of this period, formerly independent states became known as *nomes* and fell under control of a central authority. The royal capital was moved to Memphis, where the pharaohs came to be considered living gods. Succeeded by the so-called First Intermediate Period, it was begun by the Third Dynasty, which was led by King Djoser, and ended after the Eighth Dynasty saw a shortage in rain that prevented the usual flooding of the Nile. For ten points, name this period of ancient Egyptian history, which lasted from 2685-2180 BCE and famously saw the building of the pyramids.

Answer: the Old Kingdom

2. Many of this person's later works were created in conjunction with John Burgee. Pre-Socratic philosophy influenced this person's design of the Fort Worth Water Gardens, while his interest in the Parthenon can be seen in the Thanks-Giving Square Chapel. Along with Henry-Russell Hitchcock Jr., he developed the Museum of Modern Art's catalog "The International Style: Architecture since 1922." Early examples of buildings he designed in the style that later made him famous include the PPG Place in Pittsburgh and the Crystal Cathedral in California. For ten points, name this American architect, whose most famous works include the New York State Theater, the AT&T building, the Seagram Building, and a glass-walled house in Connecticut.

Answer: Phillip Cortelyou Johnson

3. The derivation of one of these equivalent to some physical system is known as the inverse problem. The utility of these lies in the fact that the second-order perturbation correction to the ground state energy is always negative. They have the useful property that the trial objects used in one need not satisfy any boundary conditions to give a valid answer. One classic application of them uses the LCAO technique to estimate the ground state energy of any molecule. They find their greatest utility in quantum mechanics, where they may be derived naturally by noting that, for any normalized function, the expectation value of the Hamiltonian is bounded below by the ground state energy. For ten points, what are these objects in physics whereby a trial function is inserted into a functional for which the namesake operation vanishes?

Answer: variational principles (accept things like functional with zero variation before "trial objects")

4. One character in this work becomes furious when he comes upon some children learning the three R's of English-language instruction. Harriet Winslow finds herself stuck in the middle of the protagonists' battles and Arroyo is ultimately executed. The title character is determined to die in a brave manner, but is ultimately shot in the back. The protagonists of this novel are seeking to destroy the hacienda system. For ten points, name this novel about the disappearance of Ambrose Bierce in Mexico; a work of Carlos Fuentes.

Answer: *The Old Gringo* (or *Gringo viejo*)

5. This phase saw the peace party of Ch'in Kuei thwart some of the efforts of Yüeh Fei, its most able general, who was eventually executed. This period is notable for the *Kuan* celadons, which are among the finest ever found. The *ci* genre reached its peak in this Dynasty, the obsession with music of which is testified to by the fact that fully a fifth of the encyclopedia of 1200 is about musical competitions. Groups threatening its survival included the Liao Khitans; the Western Xia Tanguts; and especially the group that burned Pien-ching, the Jurchens, who ended its Northern period. Following the Ten Kingdoms and Five Dynasties periods, this Dynasty was founded by Chao K'uang-yin. For ten points, name this Chinese dynasty, which ruled from 960-1279 CE.

Answer: Song Dynasty (or Sung Dynasty; accept Southern Song Dynasty or Southern Sung Dynasty before "Northern period")