## Technophobia 4: Massive Quizbowl Overdose <br> Tossups by Caltech I've Got One Hand in My Packet (Brandon VandeBrake, Jay Catherwood, Josh DenHartog, Jason Meltzer)

1. Like the Romans with Romulus or the Britons with Brutus, this dynasty had a founder and namesake who was said to have descended from Trojan refugees. Nothing definite is known of the founder's life, but legend claims he fought Attila the Hun at the Battle of the Catalaunian Plains in 451, and that he was half man, half sea-serpent. For 10 points--identify the dynasty named for this possibly mythical king of the Salian Franks, the father of Childeric and grandfather of Clovis, reckoned as the "first race" of the kings of France.
answer: Merovingian dynasty (accept Merovech or Meroveus, Merowich, or Merowig)
2. Because of their unique spectral characteristics, they are often confused with quasars in preliminary surveys. Their nuclei show broad emission lines, caused by the expansion of concentrated hot gas at thousands of kilometers per second. For 10 points--identify these unusual galaxies, first identified by an American astronomer in 1944, which are extremely strong sources of infrared, radio, and X ray radiation and are characterized by their active nuclei.
answer: Seyfert Galaxies (prompt on radio galaxies; Seyferts are usually considered a subset of radio galaxies)
3. Leonardo Da Vinci used this unit of measurement in his work: four of them equaled a palm, and six palms a cubit. Today the unit is still sometimes used while tending bar. It was derived from the smallest Roman unit of length, the digitus, and evolved into the English nail, which equaled 3/4 inch. For 10 points--identify this ancient unit of measurement, whose name is shared with a useful body part.
answer: finger
4. Presented in its original preface as a newly rediscovered manuscript penned by a medieval Italian monk, it was actually written by a minor English nobleman. The idea sprang from a dream of a giant armor-clad hand at the top of the stairs in the author's imitation medieval house, Strawberry Hill. It describes how Count Manfred reacts to his son Conrad's death by desperate attempts to produce an heir, which are foiled by a giant whose disembodied limbs appear throughout the book. For 10 points--what book, perhaps the first Gothic novel, was written by Horace Walpole?
answer: The Castle of Otranto
5. Its inventor called it strictly a "limiting case" of no practical importance and it fell out of favor, but has experienced a controversial rebirth as an explanation for the Japanese recession. An implicit argument in favor of the aggressive use of fiscal policy, it is thought to occur when interest rates are expected to rise, causing an essentially infinite demand for money. For 10 points--what scenario in which inflationary policy fails to stimulate the economy was proposed by John Maynard Keynes?
answer: liquidity trap.
6. In his native language, his Christian name meant "gift of the Lord." After Jesus found him sitting by the customs house in Capernaum, this son of Alphaeus invited Jesus to a meal at his home. The Pharisees criticized Jesus for accepting his invitation, as he was a tax collector in the service of Herod Antipas. For 10 points--name this apostle, who is credited with writing the first book of the New Testament.
answer: Matthew (accept Levi before "apostle")
7. There are no TV cameras at this event, but with software called "Virtual Spectator" you can watch live via GPS data uploaded to the Internet. Through the first of three round robins, Switzerland's FAST 2000 is in last place, while Italy's Prada is in first place. Dennis Conner's Stars and Stripes is in the middle of the pack of--for 10 points--what contest to find an opponent for defending yachting champions New Zealand in the America's Cup?
answer: Louis Vuitton Cup (prompt on America's Cup; accept early America's Cup Challenger Series)
8. In this city on November 5, 1999, 2,082 oarsmen rowed 52 gilded barges to the Temple of the Dawn. Tens of thousands of spectators crowded the banks of the Chao Phyra river, and millions more watched on television, the flotilla procession which marked the opening of the birthday celebration of King Bhumibol Adulyadej, ending in--for 10 points--what capital city of Thailand?
answer: Bangkok
9. The author of this work described its creation in the critical essay "The Philosophy of Composition," portraying it as a work of careful planning, not artistic inspiration. The author decided that, in order to hold the reader's attention, this poem must be short. He decided that "a close circumscription of space", in this case the main character's chamber, would provide an appropriate frame for the narrative. The theme of a dead beloved woman was chosen as the most beautiful possible. Throw in a haunting refrain for emphasis and you have--for 10 points--the supposed original recipe for what poem by Edgar Allen Poe?
answer: The Raven
10. His parents, Arina and Vassily Ivanych, adore him despite his cynical and often biting attitude toward life. "In these days, the most useful thing we can do is repudiate," he says to his friend, Arkady Kirsanov, who at first worships him, but by the end of the novel begins to lose respect for him and his philosophy. For 10 points-identify this proponent of nihilism, the protagonist of Ivan Turgenev's Fathers and Sons.
answer: Yevgeny Bazarov
11. The northern terminus is Leggat, and the southern terminus is Imperial Beach. Russian Gulch State Park, Samuel P. Taylor State Park, the Ventana Wilderness, Los Padres National Forest, and Channel Islands National Park are all natural attractions, and towns like Gordia, Cambria, Nepenthe, and Carmel-by-the-Sea are popular sites for tourists along this route. For 10 points--identify this road, which also passes through major cities such as San Diego, Los Angeles, Santa Barbara, and San Francisco.
answer: Highway 1 or Pacific Coast Highway
12. He was born in Genoa in 1404, his family having been exiled from Florence. His major works of architecture include Sant'Andrea in Mantua, the facade of Santa Maria Novella in Florence, the Palazzo Rucellai in Florence, and the Tempio Malatestiano in Rimini. For 10 points--name this prototype of the Renaissance "universal man", whose most important contributions were arguably his treatises on art, in which he set forth rules of linear perspective.
answer: Leon Battista Alberti
13. He wrote two treatises, De temporibus and De temporum ratione, which were primarily concerned with the calculation of the date of Easter. Ancient letters, oral traditions, and his knowledge of contemporary events in Northumbria and surrounding Anglo-Saxon kingdoms formed the basis for his most famous work, which
chronicled events from raids by Julius Caesar to the arrival of St. Augustine in Kent in AD 597. For 10 points--identify this monk, the author of the 731 work Historia ecclesiastica.
answer: St. Bede the Venerable
14. Obligations to the Monroe Doctrine, the League Covenant, self-defense, or other treaties of alliance were exempt from its dictates. First proposed by the French foreign minister in 1927 as a bilateral nonaggression pact between the US and France, it was revised by the US secretary of state and ultimately became a multilateral pact that was agreed to by nearly all the nations of the world. For 10 points--identify this 1928 agreement, also known as the Pact of Paris, that attempted to outlaw war.
answer: Kellogg-Briand Pact
15. He moved to Los Angeles in 1942 and began studying with Lester Horton, eventually replacing Horton upon his death in 1953. Studying under Stella Adler in New York, he founded his own company and began creating his own works. In 1965 he hired Judith Jamison, who starred in many of his most famous pieces, as well as in works by Martha Graham and other contemporary choreographers featured by his company. For 10 points--what African-American choreographer created "Revelations" and "Cry" for his American Dance Theater?
answer: Alvin Ailey
16. Its existence was suggested by the experiments of Stern and Gerlach, who found that a beam of silver atoms passing through a nonuniform magnetic field is split into an even number of peaks, in contradiction to contemporary quantum physics. It escaped early attention because there is no classical analog for it, but Dirac was able to derive it by making the Schroedinger equation relativistically invariant. For photons, it has magnitude one, while for electrons, it has magnitude one half. For 10 points--what is this fourth atomic quantum number?
answer: spin or m-sub-s or $\underline{s}$.
17. On Friday, November 5, 1999, a 54-7 vote in favor of a Russia-sponsored resolution regarding this treaty was passed, with nearly all of the European Union nations voting with Russia. The resolution dealt with American actions that, according to Russia, "attempt to undermine or circumvent" this treaty that disallowed the large-scale systems that the United States is currently testing and planning to deploy to a site in Alaska. For 10 points--identify this 1972 treaty that bars the US and Russia from building nationwide "star wars"-like systems.
answer: Anti-Ballistic Missile Treaty or ABM Treaty
18. Mispickel is the most common mineral from which heating causes this element to sublime, leaving ferrous sulfide. It is a steel gray, very brittle, semimetallic solid that, when heated, rapidly oxidizes producing the odor of garlic. It is useful as a dopant for semiconductors, although Albertus Magnus didn't know that when he isolated it in 1250 AD . For 10 points--identify this element, whose compounds are often used in insecticides and poisons and which has atomic number 33.
answer: arsenic
19. They were discovered in 1869 by a German physician, and their study led to a 1921 breakthrough and a 1923 Nobel Prize for Medicine. A normal human being has about one million of them, consisting of four types of cells, three of which produce hormones. Delta cells produce somatostatin, a hormone that regulates the
metabolic system, and alpha cells produce glucagon. For ten points, what pancreatic enclaves also contain beta cells, from which Banting, Best, and MacLeod extracted insulin?
answer: the islets of Langerhans (accept variations like islands or isles)
20. Raised mainly by Stumpy and Kentuck, with help from local toughs like the gambler Oakhurst, this son of Cherokee Sal is usually known as just "The Kid" or "The Coyote." True to his other name, he proves a blessing, as the men stop swearing, begin washing twice a day, and plant vines and flowers around their houses. At last, however, a disastrous flood sweeps through the small mining town and drowns--for 10 points--what title character of a short story by Bret Harte?
answer: The Luck of Roaring Camp (prompt on Tommy)
21. This doctor from Stagirus was a member of the Asclepiads, or "sons of Asclepius." He had the prestige of being the court physician to Amyntas III of Macedonia, father of Philip II, which helped his more famous son begin his career. For 10 points--identify this Greek, now best known for being in the title of his son's philosophical work Ethics.
answer: Nicomachus
22. Except for relatively short missions to the Americas and to the Turkish coast, he spent most of his early career in the blockade of France. After his capture and daring escape from France, he married Barbara Wellesley, the sister of the Duke of Wellington. For 10 points--name this fictional naval hero, played on screen by Gregory Peck and Ioan Gruffudd, and created by C.S. Forester.
answer: Horatio Hornblower

## Tiebreaker question

23. The skies as far west as Great Britain were illuminated through the night, supposedly bright enough to read by, due to the ice and dust thrown up into the atmosphere. The site was first investigated in 1927 by Russian scientist Leonid Aleksyevich Kulik, who found splintered trees lying radially for 9 to 19 miles from the epicenter. For 10 points--identify this event, occurring on June 30, 1908 in central Siberia, in which it is believed the Earth was struck by a comet or asteroid fragment that exploded in the air with energy equivalent to 10 to 15 megatons of TNT.
answer: Tunguska Event

## Technophobia 4: Massive Quizbowl Overdose <br> Bonuses by Caltech I've Got One Hand in My Packet (Brandon VandeBrake, Jay Catherwood, Josh DenHartog, Jason Meltzer)

1. Welcome to Technophobia! Classify the following 2-manifolds topologically for the stated number of points:
A. (5) This closed, orientable space with Euler characteristic equal to 0 is topologically equivalent to the surface of a standard coffee cup.
answer: torus
B. (10) This closed non-orientable surface with Euler characteristic equal to 0 may be obtained by joining opposite ends of a cylinder with a twist, or by attatching two Mobius bands along their boundary circles.
answer: Klein bottle
C. (15) This surface with Euler characteristic equal to 1 is obtained by identifying antipodal points on the boundary of a disk. It is closed and non-orientable.

## Answer: projective plane

2. Identify these Leonardo DaVinci paintings from descriptions 5-10-15:
A. (5) Christ is seated at the center of a long table, with six men on each side of him, in a sparsely decorated room.
answer: The Last Supper
B. (10) Brown and yellow ochre are the colors composing this piece, which features a woman and small child in the center, and a crowd of men and women all trying to look at the child.
answer : Adoration of the Magi
C. (15) Rocky cliffs and a tall tree dominate the background, while the characters in the foreground include two female relatives of Jesus, a nude child Christ, and a lamb.
answer: Madonna and St. Anne
3. Identify the following data structures for 10 points each:
A. It is stored in memory as a fixed, contiguous block. Elements are accessed by a numerical index. answer: array
B. It is series of data elements linked by pointers in which elements are only added at the tail of the list and accessed at the head.
answer: queue (prompt on linked list)
C. It is a type of array that accesses elements based upon a function called a key. It is often used in searching algorithms, as elements can be found via the key rather than a direct search.
answer: hash table
4. Given a description of a European title of nobility, identify the title on a $15-10-5$ basis:
A. (15) The Latin form of this title was originally given to high-ranking Roman military commanders, who usually had military and civilian responsibilities in a territory.
(10) In most cases, it is the highest ranking title below prince or king.
(5) It is derived from the Latin title $d u x$.
answer: Duke (Accept Dux or Archduke) on the 15-point clue
B. (15) Under the Romans, these were household companions of the Emperor; the Franks used them as local administrators and judges.
(10) Its rank is just below that of marquess or duke.
(5) It is derived from the Latin title comes.
answer: Count (Accept Comes on the 15 point clue)
5. Identify the National Park from monuments for 10 points each:
A. Nevada Falls, Clouds Rest, Half Dome
answer: Yosemite National Park
B. The Watchman, The Altar of Sacrifice, Kolob Arch
answer: Zion National Park
C. Cadillac Mountain, Echo Pond, The Triad
answer: Acadia National Park
6. Answer the following about a recent Internet chess match:
A. For 5 points each--name the participants in this match, which was moderated by British Grandmaster Danny King, and was won by White when Black resigned on its 62nd move.
answer: Garry Kasparov vs. the World
B. For 10 points--on which company's "Gaming Zone" internet site did the match take place?
answer: Microsoft (accept Microsoft Network or msn.com)
C. For a final 10 points--name any one of the four analysts guiding the World team: a 16 year old French grandmaster, a 19 year old Romanian GM, a 14 year old German master, and the current US Women's Champion.
answer: Etienne Bacrot or Florin Felecan or Elisabeth Pahtz or Irina Krush
7. For 10 points each--name these persons who were inducted into the Baseball Hall of Fame in 1999.
A. He holds the American League record for intentional walks, and he hit for batting titles in the '70s, '80s, and '90s during his career with the Kansas City Royals.
answer : George Brett
B. He played for the Giants, Cardinals, Braves, Athletics, Red Sox, and Royals during his career which lasted from 1958 to 1974, and won the National League MVP Award in 1967 with a unanimous vote. His nicknames included "Baby Bull" and "Cha-Cha".
answer : Orlando Cepeda
C. He served in the American League from 1954 to 1978, worked 5 World Series, and served as American League Assistant Supervisor of Umpires until his death in 1982. Name this man who Bud Selig called "the best umpire of the post-war era."
answer : Nestor Chylak
8. Name the Biblical figure, 30-20-10:
A. This son of Nun and member of the tribe of Ephraim was part of the contingent which left Egypt at the great Exodus.
B. Following Moses' death, God appointed this man as leader of the Israelites. He led the people across the Jordan as Moses had crossed the Sea of Reeds and ordered the males to be circumcised with flint knives as Zipporah had circumcised Moses.
C. The Old Testament book which bears his name includes the story of the walls of Jericho collapsing under his attack.
answer : Joshua
9. Name the Sheryl Crow song from lyrics for 10 points each:
A. "Did you know when you go/tt's the perfect ending/To the bad day I was just beginning" answer: My Favorite Mistake
B. "Lie to me/I promise I'll believe/Lie to me/But please don't leave"
answer : Strong Enough
C. "We went searching through thrift store jungles/Found Geronimo's rifle/Marilyn's shampoo/And Benny Goodman's corset and pen"
answer : If It Makes You Happy
10. Answer the following about optics for 10 points each:
A. In 1669, Bartholinus looked through a crystal of Iceland spar and observed two images, discovering this effect. He explained it by assuming that the crystal had two different indices of refraction.
answer: birefringence (prompt on double refraction)
B. In 1808, a French army engineer looked through a birefringent crystal at the light reflecting off the windows of the Luxembourg palace and noticed that the two images varied in intensity as he rotated the crystal. Name this man whose eponymous law states that light is partially polarized by reflection.
answer: Etienne-Louis Malus
C. Bertholinus and Malus both used crystals of this common birefringent material, whose three perfect cleavages give its crystals their six-sided polyhedral structure, and which has a rank of 3 on the Mohs hardness scale.
answer: calcite
11. Identify the following works of Harlan Ellison that have been converted into other media, for 10 points each.
A. This short story, part of the collection Slippage, about a black mind reader from the South, is being turned into a motion picture starring Samuel L. Jackson.

## Answer: "Mefisto in Onyx"

B. This story, in which a giant supercomputer endlessly torments the last five surviving humans, was turned into a CD-ROM computer game.

## Answer: "I Have No Mouth and I Must Scream"

C. This story, from the collection "The Beast that Shouted Love at the Heart of the World," tells of a post-apolyptic future in which a telepathic dog and his owner walk the streets in search of love and food. It was turned into a 1975 motion picture by L.Q. Jones.

Answer: "A Boy and His Dog"
12. In 1929, they formally declared their intentions, which were to investigate scientific language and methodology, in the manifesto Scientific Conception of the World. For 10 points each:
A. Name this group of logical positivists.
answer: Vienna Circle or Wiener Kreis
B. Name the founder of the Vienna Circle, an epistemologist and philosopher of science whose works include The Nature of Truth According to Modern Logic. He was shot and killed by a deranged student in 1936.
answer: Moritz Schlick
C. Name the author of works such as The Logical Structure of the World: Pseudoproblems in Philosophy, a German-born American thinker who founded the Vienna Circle journal Knowledge with Moritz Schlick in 1933.
answer: Rudolf Carnap
13. His eyes represented the sun and the moon, and he is the mythological ancestor of the Egyptian pharaohs. For 10 points each:
A. Name this falcon-headed god.
answer: Horus
B. This uncle of Horus murdered Osiris and contested Horus' claim to the royal throne of Egypt. Horus eventually defeated him after eighty years of war.
answer: Set
C. In an early battle, Set put out Horus' left eye, which was healed by this ibis-headed god.
answer: Thoth
14. For 10 points each--given the second, third, and fourth lines of an Emily Dickinson poem, give the more well-known first line:
A. ...Are you Nobody, too?/ Then there's a pair of us--don't tell!/ They'll banish us, you know. answer: I'm Nobody! Who are you?
B. ...He kindly stopped for me./ The carriage held but just ourselves/ And Immortality. answer: Because I could not stop for Death
C. ...To take us lands away/ Nor any coursers like a page/ Of prancing poetry.
answer: There is no frigate like a book
15. People like to write questions about where they are from, and this is no exception. Answer the following questions about Iowa for 10 points each:
A. This river forms most of the western boundary of Iowa, before flowing southeast toward St. Louis. answer : Missouri River
B. Davenport, Iowa and Bettendorf, Iowa, along with Rock Island, Illinois and Moline, Illinois are known by this collective name.
answer : Quad Cities
C. This lake has the largest surface area of any lake in the state. Its name resembles that of a Denverarea ampitheatre where John Tesh and Dave Matthews Band made live albums.
answer : Lake Red Rock (do not accept "Red Rocks")
16. Identify the Persian emperors from clues for 10 points each:
A. Considered one of the greatest Persian Emperors, he reigned from 522-486 BCE and unsuccessfully attempted to conquer Greece throughout his reign.
answer: Darius I or Darius the Great
B. He was the son of Darius I and ruled from 486-465. His reign continued his father's war against the Greeks and saw the battles of Thermopylae, Salamis, and Plataea.
answer: Xerxes I or Xerxes the Great
C. He founded the Achaemenian empire, centered on Persia, which stretched from the Aegean Sea to the Indus River. He was noted by Xenophon as an idea monarch, and is remembered in the Bible as the liberator of the Jews from Babylon.
answer: Cyrus II or Cyrus the Great
17. Identify the city at the junction of the following major US Interstates for 10 points each:
A. I-29, I-35, I-70
answer: Kansas City
B. I-74, I-75, I-71
answer: Cincinnati
C. I-85, I-75, I-20
answer: Atlanta
18. The Apostles of Jesus were said to have founded churches in many towns, which later came to be known as Apostolic Sees. Name these cities from clues for 10 points each:
A. Peter and Paul are said to have founded this See, also called the Papal See.
answer: Rome
B. Peter supposedly founded this See located in Phrygia, which is now in west-central Turkey.
answer: Antioch
C. In the 7th century, the Patriarchate of this city, in an effort to compete with Rome, claimed that its church was founded by the apostle Andrew; nobody then or now really believed it.
answer: Constantinople
19.

Answer these questions about this year's Booker Prize.
A. For 10 points each, name the South African author who won the 1999 Booker Prize, and the novel for which he received the award.
answer: J.M. Coetzee and Disgrace
B. J.M. Coetzee is the first person to win the Booker prize a second time. For 10 points, for what book did he previously win, in 1983?
answer: Life \& Times of Michael K.
20. It does a body good -- pass it on! Answer the following questions about milk for 10 points each:
A. Start with the cow. The first fluid secreted by its mammary glands is not milk, but this clear solution of concentrated protein, vitamins, and antibodies.
answer: colostrum
B. This protein, which forms Little Miss Muffet's curds, coagulates and forms solid clumps when exposed to acid or bacteria. It is also used in the manufacture of paper, plastics and glue.
answer: casein
C. This milk treatment, developed in 1900 by the French, breaks up agglomerated particles to prevent creaming. Because its implementation causes milk to go rancid in a matter of minutes, it is always carried out concurrently with pasteurization.
answer: homogenization
21. Identify the composers from works for 10 points each:
A. Preludes, Images, Reverie
answer: Claude Debussy
B. "Military" Polonaise, Etude in E "Tristesse", Etude in C Minor "Revolutionary" answer: Frederic Francois Chopin
C. Theodosius, Dioclesian, Dido and Aeneas
answer: Henry Purcell
22. Given a year, identify the film that won best picture for 10 points each; you'll get 5 points if you need the director.
A. (10): 1974
(5) Francis Ford Coppola
answer: The Godfather Part II
B. (10): 1962
(5) David Lean
answer: Lawrence of Arabia
C. (10)1954
(5) Elia Kazan
answer: On the Waterfront
23. $30-20-10$ : Identify the 20 th Century Philosopher.

30: He stopped writing for publication in 1971 and, following the motto "commitment is an act, not a word," he often participated in street riots and the dissemination of left-wing literature.

20: He was awarded the Nobel Prize for Literature in 1964 for his autobiography, but he refused it.
10: His most important work, Being and Nothingness places human consciousness, neant in opposition to being, etre.

Answer: Jean-Paul Sartre
24. Given a ship's name, identify the work of Joseph Conrad in which it appears, for 15 points each.
A. Patna

Answer: Lord Jim
B. Sephora

Answer: "The Secret Sharer"
25. Given selected poems, identify the title of the collection containing them, FTP each, or for 5 if you need the poet.
A) 10: "The Rime of the Ancient Mariner," "To a Gentleman," "The Visionary Hope."

5: Samuel Taylor Coleridge
Answer: Sibylline Leaves: A Collection of Poems
B) 10: "Ode to the West Wind," "Adonais," "To a Skylark"

5: Percy Bysshe Shelley
Answer: Prometheus Unbound, A Lyrical Drama in Four Acts with Other Poems
C) 10: "The Thorn," "Lines Written a Few Miles above Tintern Abbey," "The Nightingale" 5: William Wordsworth and Samuel Taylor Coleridge

Answer: Lyrical Ballads
26. Identify the type of dark matter from descriptions FTP each:
A) This class of objects include brown dwarfs, dim stars, and black holes.

Answer: MACHOs or Massive Compact Halo Objects
B) These particles are thought to interact with normal matter only through the weak and gravitational forces, thus making them very difficult to detect.

Answer: WIMPs or Weakly Interacting Massive Particles
C) These leptons come in electron, muon, and tau types, have no electric charge, and spin one-half. As they have recently been found to have mass, they make up some part of the "missing mass" problem of dark matter.

Answer: Neutrinos
27. So, you know a lot about Mythology? How much do you know abøut the Mythology of William Blake? Identify these entities from Blake's mythology, FTP each:
A) The "Ancient Man" or "One Man"

Answer: Albion
B) The spirit of mortal imagination

Answer: Los
C) The spirit of Rebellion

Answer: Orc
28. Identify the battle of the Napoleonic Wars given Napoleon's opponents for 10 points each; 5 points if you need a date and approximate location:
A. (10) Alexander I of Russia, Francis I of Austria
(5) December 2, 1805 near Vienna
answer: Austerlitz
B. (10) General M. I. Kutuzov

5: 70 miles west of Moscow
Answer: Borodino
C) 10: Napoleon, Gebhard Leberect von Blucher from Prussia, the Duke of Wellington from Great Britain, 1815
5: 9 miles south of Brussels

Answer: Waterloo

