

Valencia Fall Invitational 2002–Semifinal Round
Questions by CB with some science by Iowa State

1) One explanation for the visions that occurred here came in July, 2001, when Italian archaeologists showed that a fault running beneath the temple showed traces of ethylene, which when inhaled can cause euphoria and giddiness. Plutarch, who served as a high priest there, specifically said that the Pythia would breathe deeply from the ground before making pronouncements. Originally dedicated to Gaea, but later to Apollo, FTP this is what site at which visitors came to hear about their futures in ancient Greece?

A. Oracle at Delphi (acc. reasonable variants)

2) This city's population grew from 600,000 to over three million in just a few months in 1949. Currently home to over seven million, its Kowloon district has a population density nearly five times that of New York City. Set on dozens of islands, including Lantau, FTP name this Asian city which in 1997 became part of China.

A. Hong Kong

3) For ten fragrant math points, find all solutions from zero to π of the equation $\sin x$ equals the square root of two divided by two.

A. π over four and three π over four (or 45 degrees and 135 degrees)

4) The novel traces exactly one year in the protagonist's life, beginning on his 30th birthday when two strangers appear at his room. Exactly one year later, those same two men take him to an unremarkable spot and shoot him in the head. In the intervening year, the protagonist spends much time fighting his arrest through a dizzying maze of court appearances and correspondence. This vaguely summarizes, FTP, what Franz Kafka novel about the legal case of Josef K.?

A. The Trial

5) In his new book *Blue Latitudes*, author Tony Horwitz retraces the Pacific explorations of this man. The amateur botanist and landed gentleman Joseph Banks accompanied him on one voyage, and Banks's suggestion that fruit could fight scurvy was borne out. In 1769 he was sent to Tahiti to observe the transit of Venus, and on his last voyage, while put in on Hawaii, he was killed by natives while trying to recover a stolen canoe. FTP who was this captain of the Endeavour, the man who mapped New Zealand and Eastern Australia?

A. James Cook

6) The bodies of creatures in this phylum have three parts: a visceral mass containing internal organs, a mantle that drapes over the internal mass, and a muscular locomotive piece. Many use a straplike rasping organ called a radula to scrape up food. Including a wide range of creatures, FTP this is what phylum of snails, oysters, and octopi, among others?

A. Mollusca (acc. mollusks)

7) This title is attached to the first four of the twelve violin concertos the composer published in 1725 as Opus 8, *The Conflict between Harmony and Invention*. The strict form of the solo Baroque concerto, fast-slow-fast, is the scheme in all four, and the very famous opening notes of the first are meant to evoke the twittering of birds and the rushing of streams filled with melting snow. That first piece is titled La Primavera. FTP what is this group of concerti by Antonio Vivaldi?

A. The Four Seasons

8) It was the second "second-class" battleship constructed by the U.S., and it remains the largest

ever built completely at a naval shipyard. In its most famous moment it was captained by Charles Sigsbee, who had complained about the placement of the coal bunkers around the perimeter of the ship, to serve as extra defense armor. Its possible that a spontaneous fire from one of these bunkers could have ignited a nearby ammunition magazine, causing the two explosions that led to its sinking. FTP what was this ship sunk in Havana Harbor in 1898?

A. USS Maine

9) At level seven people have difficulty standing. At eight, drivers have a hard time steering vehicles. At four most people indoors feel movement. At ten bridges and dams are destroyed and railroad tracks are bent. FTP this describes what 12-level scale that measures the intensity of earthquakes?

A. Modified Mercalli Scale

10) Some of his early short stories were published under the pseudonym "The Doctor without Patients." Considered by some the greatest writer of short stories, some of his include "The Steppe" and "A Dreary Story." Though he wrote longer prose works of fiction and non-fiction, including *Sakhalin Island* and *Ward No. 6*, he's best known for his dramas. FTP who is this Russian author of *The Seagull* and *The Three Sisters*?

A. Anton Chekhov

11) Marx used this term to refer to the valuing of certain items, gold for instance, by modern Western society, regardless of the utility of the item. Though people might think gold is naturally valuable, its worth comes from a set of conventions, a social belief he described with this term. Freud suggested the sexual aspect of the term came from the male child's fear of female castration; the boy finds an object on which to project sexual desire to substitute for the absence of the penis in the female. FTP what is this term that in common use might refer to your uncle's creepy lust for feet or rubber outfits?

A. fetish

12) A member of Springfield's Mensa chapter, this character first appeared when his show was on opposite a blockbuster on NBC, and is either an homage or nasty satire. An old photograph indicates he might be the long-lost brother of Bleeding Gums Murphy. In the most recent Treehouse of Horror, he was seen turning other characters into human-animal freaks. Prone to chuckle following dire pronouncements, FTP name this family doctor on *The Simpsons*.

A. Dr. Hibbert

13) Born in 1918 of peasant origin, he joined the British Royal Military in 1938 and was posted to the Sudan. There he helped found the secret anti-British, anti-monarchy Free Officers group, for which the British imprisoned him during WWII. When the Free Officers seized power in 1952, this man helped Gamel Abdel-Nasser take political control. Co-recipient of the 1978 Nobel Peace Prize with Menachem Begin, FTP name this man who succeeded Nasser in 1970 and who was assassinated in Cairo in 1981.

A. Anwar el-Sadat

14) Currently housed in the Musee D'Orsay, in its lower-left corner is an upturned hat, some bluish clothes, and a wicker basket in which some apples and grapes can be seen. Trees bracket the central figures, the fourth of whom is bent over half-toward the viewer, seemingly washing her feet in a

stream. Of the three dominant figures, the two on the left look out at the viewer, while the third, wearing a Turkish hat, talks to them. Of course only the woman is buck nekkid. FTP, what is this Manet painting of a most unusual afternoon meal?

A. Luncheon on the Grass (Le Dejeuner sur l'herbe)

15) The U.S. Department of the Navy can be said to owe its existence to this event, as it was funded in 1798 to construct vessels to capture the ships of a certain European nation by order of Congress. The British were delighted and provided shot and shells as well as training by its own officers to help the Americans harass French shipping. All of this was in response to French bribe requests made to a diplomatic party of C.C. Pinckney, Elbridge Gerry, and John Marshall. FTP what name is given to this event in which three French diplomats insulted U.S. agents?

A. XYZ Affair

16) We are told that the title subject's "wrinkled lip, and sneer of cold command,/Tell that its sculptor well read those passions." Around the subject's "wreck, boundless and bare/The lone and level sands stretch in every way." Told to the persona by a "traveler from an antique land," FTP what is this poem whose title subject wants you to "look on his works . . . and despair," a work by Percy Shelley?

A. "Ozymandias"

17) To solve it at larger distances, K.G. Wilson introduced a lattice gauge theory, in which space-time is discretized onto a lattice. Featuring a non-Abelian gauge group, it describes the strong interactions between quarks, anti-quarks and gluon exchange. FTP name this strong force analogue of quantum electrodynamics.

A. QCD (or quantum chromodynamics)

18) His principle of sufficient reason is based on his belief that each individual has a corresponding "complete notion," knowable only to God. In 1676 he traveled to Amsterdam to meet with Spinoza, and he cites Spinoza in his Discourse of Metaphysics. Hostile to the atomists, he came up with his own fundamental units which he saw as windowless entities capable of perception. FTP who is this German lampooned by Voltaire for his optimism, the coiner of the term "monads"?

A. Gottfried Wilhelm Leibniz

19) Made of fire, air and water, these substances give the characteristic colors of blue, red, and green to it. Its guardian lives in a small spot just off of it called Himinbiorg. Every day all the Aesir, except for Thor, who has to swim somehow, must cross it to visit the well of Urd. Also called Asbru, and guarded by Heimdall, FTP what is this bridge associated with the rainbow which joins Midgard to Asgard?

A. Bifrost

20) Co-founder and namer of the newspaper *The Village Voice*, he followed up his successful first novel with the disappointing *Barbary Shore*. Often involved in politics and issues, his advocacy of freedom for the murderer-cum-writer Jack Henry Abbott led to that man's release, after which he killed again. Author of the New Journalism landmark *Armies of the Night*, FTP this is what author of *The Executioner's Song* and *The Naked and the Dead*?

A. Norman Mailer

Valencia Fall Invitational 2002–Semifinal Boni

1) Identify these labor unions FTPE.

A. Under its most powerful leader, Terence Powderly, this union brought about Labor Day and

opened its membership to all but doctors, lawyers, bankers and liquor manufacturers. It died out before 1900.

A. Knights of Labor

B. Under Samuel Gompers this trade union stayed conservative and didn't advocate the strike, leading to its stability.

A. AFL (American Federation of Labor)

C. Their name comes from the men who used to drive wagon trains hauling loads, but now this union generally includes truckers, drivers and loaders of all sorts.

A. Teamsters

2) Identify the following particles as baryon, meson, lepton, or none of these FTPE.

A. j-particle

A. meson

B. Tau neutrino

A. lepton

C. proton

A. baryon

3) Identify these pre- or early Renaissance artists FTPE.

A. Most famous for his 38 frescoes in the Scrovegni Chapel in Padua, Vasari credits him with the breaking of the rigid Byzantine tradition.

A. Giotto

B. Though no extant works can definitely be said to be his, this teacher of Giotto painted Byzantine-influenced iconlike Madonnas and crucifixions.

A. Cimabue (cheem-a-byu-ay)

C. This painter is best known for his "Battle of San Romano," which currently resides in London.

A. Paolo Uccello

4) Answer the following about your old pal, Washington Irving FTPE.

A. For a time Irving served in Spain as a diplomat, leading to the collection of stories in this work, named for moorish fort in Granada.

A. The Legends of the Alhambra

B. Irving's satirical History of New York was written under this pseudonym, explaining a certain NBA team's nickname.

A. Diedrich Knickerbocker (do NOT accept "Knicks" or anything like that)

C. Irving's most famous tales, including "Rip van Winkle" and "The Legend of Sleepy Hollow," appeared in this collection.

A. The Sketch Book of Geoffrey Crayon

5) Answer the following about recent political events in that hotbed of unrest, Minnesota, FTPE.

A. The death in a plane crash of this liberal senator shocked many in the Land of 10,000 Lakes.

A. Paul Wellstone

B. At a memorial service for Wellstone, Governor Jesse "The Mind" Ventura was outraged that this Senate Minority Leader was booed when introduced to the crowd.

A. Trent Lott

C. This former mayor of St. Cloud defeated Walter Mondale to take Wellstone's seat.

A. Norm Coleman

6) Time to get your asymptotes in gear. FTPE:

A. First, find the vertical asymptotes of the rational equation $x/(x-3)(x+4)$.

A. $x = 3$ and $x = -4$

B. Find the horizontal asymptote of $y = 1/x^3$.

- A. $y = 0$
- C. Find the horizontal asymptote of $y = x^2/x+1$
- A. does not exist (acc. equivalents)
- 7) Islam stuff FTPE.
- A. In Mecca, this structure is circled by pilgrims making the Haj.
- A. Ka'aba
- B. This is the man who calls the faithful to pray from the minarets of a mosque.
- A. Muezzin
- C. Muslims fast each day during Ramadan from what beginning to what ending time?
- A. dawn till dusk (acc. obvious equivalents, don't allow whining about question)

- 8) Name these important 20th century Jewish-American novelists FTPE.
- A. Still kicking at 87, this Nobel Laureate is author of *Ravelstein*, *Herzog*, and *Seize the Day*.
- A. Saul Bellow
- B. Author of *The Fixer* and *The Assistant*, this novelist died in 1986.
- A. Bernard Malamud
- C. Though known more for criticism, like her "Notes on Camp," this woman wrote the novels *The Volcano Lover* and 2001's National Book Award winner *In America*.
- A. Susan Sontag

- 9) Identify the folks for whom these physics laws are named FTPE.
- A. The loop rule, which says the sum of the potential differences encountered in a round trip of any closed loop in a circuit is zero, and the point rule, which says the sum of the currents toward a branch point is equal to the sum of the currents away from the same branch point.
- A. G.R. Kirchoff
- B. The further away a galaxy is from us, the faster it is receding from us.
- A. Edwin Hubble
- C. For a wavefront traveling through a boundary between two media, the angle of incidence theta is related to the angle of refraction phi by $n_1 \sin \theta = n_2 \sin \phi$.
- A. Willebord Snell

- 10) Ready for the bonus on "American Idol"? Too bad—this question deals with talented bands that wrote their own music. ID these classic rock albums from songs FTPE.
- A. The apotheosis of the Rolling Stones, this album includes "Tumbling Dice," "Happy," and the wonderful "Turd on the Run."
- A. Exile on Main Street
- B. Sure, it has "The Battle of Evermore," "Four Sticks," and "Rock and Roll," but all of these are overshadowed by the ponderous "Stairway to Heaven."
- A. Led Zeppelin IV (acc. ZOSO from smartypants)
- C. Besides the title song, this first AC/DC album without Bon Scott features pounding songs like "Have a Drink on Me" and "You Shook Me All Night Long."
- A. Back in Black

- 11) Time for the obligatory Punic Wars bonus. FSNOP:
- A. (5 pts.) Let's get it out of the way—this Carthaginian general lost to Scipio Africanus at Zama.
- A. Hannibal
- B. (10 pts.) After the first Punic War, the Carthaginians had to give up this island to Rome.
- A. Sicily

C. (15 pts.) This Roman writer and speaker ended every speech with his pet phrase, *Delenda est Carthago*, or "Carthage must be destroyed."

A. Cato the Elder

12) Answer the following about Hawaii FTPE.

A. On what island did Father Damien found a leper colony?

A. Molokai

B. What woman served as the last queen of Hawaii?

A. Liliuokalani (just sound it out, dude!)

C. Name either of Hawaii's U.S. senators.

A. Daniel Akaka or Daniel Inouye

13) Supply the missing word in the titles of these English plays FSNOP.

A. She Stoops to _____

A. Conquer

B. 'Tis Pity She's a _____

A. Whore

C. _____ of the Burning Pestle

A. Knight

14) Given periods, name the geological era in which they occurred FTPE.

A. Cretaceous, Triassic

A. Mesozoic

B. Permian, Devonian

B. Paleozoic

C. Tertiary, Quaternary

C. Cenozoic

15) Name the authors of these economics works FTPE.

A. The Economic Consequences of the Peace (1919)

A. John Maynard Keynes

B. An American Dilemma

A. Gunnar Myrdal

C. The Eighteenth Brumaire of Louis Bonaparte

A. Karl Marx

16) Name the wars ended by these treaties FTPE.

A. Shimonoseki

A. Sino-Japanese War

B. Utrecht

A. War of Spanish Succession

C. Ghent

A. War of 1812

17) Answer the following about a certain National Park FTPE.

A. Established in 1872, it is the oldest national park in the world.

A. Yellowstone

B. Yellowstone's boundaries encompass parts of three states; name them all for ten points.

A. Wyoming, Montana, Idaho (must have all three, any order)

C. Yellowstone holds the majority of these steam vents in the world, including Old Faithful and Steamboat, the world's largest.

A. geysers

18) Name these supporting characters from Peanuts FTPE.

A. This girl has “naturally curly hair” and a boneless cat.

A. Frieda

B. This bespectacled girl loves Charlie Brown and calls Peppermint Patty “Sir.”

A. Marcy

C. This boy is catcher for the baseball team and is an expert performer of Beethoven.

A. Schroeder

19) Name these metallic elements FTPE.

A. This alkaline earth metal has a high strength to density ratio, but is fairly brittle. One of the most common uses of it is in x-ray tube windows as it is almost transparent to x-rays.

A. beryllium

B. Its tenacious oxide film makes it very corrosion resistant, and it is commonly used in high-temperature applications. Its primary use is in stainless steels and in superalloys.

A. nickel

C. Chemically related to Rhenium, it is present in S, M, and N type stars, but does not occur naturally on Earth. It is largely produced in nuclear reactors since it is a product of uranium decay.

A. technetium

20) Answer the following about a short-lived republic of North America for fifteen points each.

A. Named for the image on its early flag, what name designated the brief “republic” declared in present-day California in 1846?

A. Bear Flag Republic

B. What man nicknamed “the pathfinder” helped lead the Bear Flag Revolt?

A. John C. Fremont