

Valencia Fall Invitational 2002–First Playoff Round

Questions by CB with science help by Seth Teitler of Cal-Berkeley and DePauw Quizbowl

1) When she was born in 1954 in Birmingham, Alabama, her schoolteacher mother named her after the Italian musical notation meaning to play “with sweetness.” After serving under Brent Scowcroft in the office of the National Security Advisor, specializing in Russian studies, she was named provost at Stanford. In 1993, Chevron, on whose board she sat, named an oil tanker after her. Her connections to George Bush Senior through Scowcroft brought her to George W.’s attention before his 2000 election. FTP name this woman who currently serves as our National Security Advisor.

A. Condoleezza Rice

2) One of his maxims was that the truth is useful because it is true, and that it is true because it is useful. His radical empiricism led him to emphasize pluralism, as in his 1909 book *A Pluralistic Universe*. Also interested in psychology, he wrote *The Principles of Psychology* and *The Varieties of Religious Experience*. FTP name this American philosopher and author of *Pragmatism*.

A. William James

3) To solve for this property, take twice the difference in density between the sphere and the liquid, multiply that by the acceleration due to gravity and the radius of the sphere squared, and divide it all by nine times the velocity due to gravity. This property helps determine whether volcanic magma explodes or simply flows down a mountain; it also explains why it is easier to run in air than in water. FTP what is this property that literally describes the measurement of the resistance of liquid to flow?

A. viscosity

4) The protagonist’s maiden name is Milford, and after graduating from Blodgett College, she marries a doctor named Will. Carol deplures Will’s drab hometown of Gopher Prairie and tries in vain to interest the town’s inhabitants in art and literature. FTP name this novel, an attack on provincialism featuring Carol Kenicott, a novel by Sinclair Lewis.

A. Main Street

5) This company’s Lutine Bell was traditionally rung once for bad news about an overdue ship and twice for good news. It originated as a coffee house on the Thames in the late 17th century which was a gathering place for ship owners and investors looking for news about marine trade. Over time these wealthy men began to share the financial risks of shipping. FTP name this now-modern English company, the largest insurance firm in the world.

A. Lloyd’s of London

6) Its name comes from the Greek for “thanksgiving,” and its rules and meanings were set forth in Sessions 12, 21 and 22 of the Council of Trent. One of the central mysteries of the Catholic Church, it is also known as Corpus Domini, as a true transubstantiation of the wafer and wine is said to take place. FTP name this sacrament in which one can take part after completing one’s first communion.

A. eucharist

7) Species in this kingdom number over 250,000. They are found in multicellular form with specialized eukaryotic cells, and they do not have their own means of locomotion. Due to their method of nutrition, they are deemed autotrophs. FTP what is this kingdom whose members synthesize food through photosynthesis?

A. plantae (acc. plants)

8) The main character, a wholesale bathroom supplies salesman, sports a bright-blue suit throughout the movie. Constantly berated by his seven sisters, he stumbles onto a way to accumulate over a million frequent-flier miles by buying pudding. Co-starring Phillip Seymour Hoffman and Emily Watson, FTP this is what current Paul Thomas Anderson movie starring the next Olivier, Adam Sandler.

A. Punch-Drunk Love

9) Its interior is 142 feet high and 140 feet ^{wide.} high, with a cylindrical shape. Around the interior's base are seven niches which originally held statues of sky gods like Saturn, Jupiter and Venus. Above the level of the niches are recessed squares called coffers, which lighten its immense dome visually and structurally. Topped by the 29-foot-wide oculus, FTP this is what temple in Rome dedicated to all the gods?

A. Pantheon

10) This author's work *Flush* is about a spaniel that belonged to Elizabeth Barrett Browning. Other novels include *Between the Acts* and *Jacob's Room*. The daughter of Sir Leslie Stephen, she and her sister Vanessa were members of the Bloomsbury Group. A pioneer in the use of stream of consciousness, FTP who is this author of Orlando, *Mrs. Dalloway*, and *To the Lighthouse*?

A. Virginia Woolf

11) A series of numbers also called the Euler numbers or zig numbers. A line joining two points on a curve: as one of the points is brought toward the other, the line tends to a tangent line. A trigonometric function whose square is the derivative of the tangent function. In a right triangle, the mnemonic hypotenuse over adjacent applies to, FTP, what function defined as one over cosine?

A. secant

12) Bahadur Shah II was the last of the line, dying in 1862, leading to official status of the empire as a British colony. This royal line began in 1526 when its founder defeated Ibrahim, the sultan of Delhi, in the first battle of Panipat. Other members of the line included Humayun and Jahangir (ZHA-han-geer). Begun by Babur, FTP name this line of muslim Indian emperors that also included Akbar and Shah Jahan.

A. Moguls

13) An enraged immigrant from this nation smashes the Risk board on which Kramer and Newman are playing when Kramer disparages its strategic weakness. It has recently made overtures toward its European neighbors, and in July, 2002, President Leonid Kuchma announced his nation would seek to join NATO. Home to the Chernobyl reactor and once called the "breadbasket of Russia," FTP name this nation with capital at Kiev.

A. Ukraine

14) Probably written mostly in 1824, it was presented to the Styrian Music Society in Graz, Austria, in thanks for that body's induction of the piece's composer the previous year. Its first movement is in

allegro moderato, and its second is andante con moto; it has no scherzo or finale. Finally performed in 1865, 38 years after its composer's death, this is what work by Franz Schubert that lacks two movements?

A. "Unfinished" Symphony (acc. Symphony #8)

15) In the minus type of this process, a neutron turns into a proton, an electron, and an antineutrino. The electron and antineutrino fly away from the nucleus, leaving it with one more proton than it started with. In the plus type, a proton turns into a neutron, a positron, and a neutrino. The positron and neutrino fly away from the nucleus, leaving it with one less proton than it started with. Since an atom loses a proton in the plus type, it changes from one element to another. FTP this describes what type of radioactive decay?

A. beta decay

16) Born in Liaoning Province, he taught himself English while serving in the People's Liberation Army. After coming to Brandeis to do graduate work, he published two collections of short works, *Ocean of Words* and *Under the Red Flag*. His most recent collection is 2002's *The Bridegroom*, but he's best known for a 1999 novel which won the National Book Award. FTP name this Chinese-American author of *Waiting*.

A. Ha Jin

17) Comprising 45,535 square miles, it was acquired for just 33 cents an acre. Its namesake was a South Carolina railroad entrepreneur who got himself appointed minister to the purchasee through his connections with Jefferson Davis, who was U.S. Secretary of War at the time. The entire land parcel lay south of the Gila River, the Southern boundary of the territory acquired from the Treaty of Guadalupe-Hidalgo. FTP this is what 10 million dollar land purchase that rounded out the bottoms of New Mexico and Arizona?

A. Gadsden Purchase

18) In genetics, this word describes a phenomenon in which genes are thought to be chemically marked molecularly as male or female. In behavioral studies, it describes a specialized form of young animal development through identification with some nearby moving object, like ducklings following a biologist around, for example. FTP what is this word associated with behaviorist Karl Lorenz?

A. imprinting

19) Its "Children of Adam" section primarily focuses on male-female relationships, while the "Calamus" group exalts "manly" love and camaraderie. "Out of the Cradle Endlessly Rocking" is an account of how the author came to be a poet. Other sections and groupings include "Drum-Taps" and "Crossing Brooklyn Ferry." FTP name this long collection of poetic works, which also includes "When Lilacs Last in the Dooryard Bloom'd" and "Song of Myself."

A. Leaves of Grass

20) This figure was born in Boetia, the son of the nymph Liriope (leer-EYE-oh-pee) and the river Cephissus. One female he spurned prayed for revenge on him to Nemesis, leading to his eventual death from starvation while looking into a pool of water. More famously, his disregard of the nymph Echo led to her disintegration into a disembodied voice. FTP name this youth whose name is now synonymous with too much love of self.

A. Narcissus

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1) Name these pioneering broads, er, women, FTPE.

A. As a slave her name was Isabella, but this woman famous for the speech "Ain't I a Woman" took on another name representative of her search for the real meaning of things.

- A. Sojourner Truth
- B. With Lucretia Mott, this woman helped organize the Seneca Falls Convention of 1848.
 - A. Elizabeth Cady Stanton
- C. In 1872 this suffragette was jailed for trying to vote in Rochester, NY. The 19th amendment is sometimes called “her” amendment.
 - A. Susan B. Anthony

2) Fun calculus FTPE.

- A. Find the first derivative of the exponential base e of the sine of x.
 - A. cosine x times e of x
- B. Find the fourth derivative of x cubed plus three x squared plus two x minus four.
 - A. zero
- C. Find the first derivative of the exponential base three of x.
 - A. natural log of three times the exponential base three of x

3) Name these apparatus used in the physics classroom FTPE.

- A. A belt runs across two rollers and in contact with a metal wire. The wire helps generate and store charge in a large metal ball at the top of the machine. Touching it makes your hair stand on end.
 - A. Van de Graaf Generator
- B. Two parallel weighted beams suspended by wires at their centers can sense variations in the Earth’s gravity.
 - A. torsion balance
- C. This is a rapidly rotating disk with a heavy rim, mounted in low-friction gimbals. While the Earth rotates beneath it, it maintains its orientation in space.
 - A. gyroscope

4) Answer the following about the novel Les Miserables FSNOP.

- A. (5 pts.) Who wrote it?
 - A. Victor Hugo
- B. (10 pts.) Who is the police inspector obsessed with the capture of Jean Valjean?
 - A. Javert
- C. (15 pts.) This woman had to turn to prostitution to support her illegitimate daughter, Cosette.
 - A. Fantine

5) Name these African countries based on recent events FTPE.

- A. Laurent Gbagbo (bahg-boh), president of this Atlantic-coast nation, has refused to sign a cease fire with rebels.
 - A. Ivory Coast
- B. Longtime President Robert Mugabe has encouraged army veterans to forcibly take land from white farmers.
 - A. Zimbabwe
- C. Erratic weather and border clashes with Eritrea has led to more refugees and the potential for another great famine in this nation.
 - A. Ethiopia

6) Name these contemporary photographers FTPE.

- A. This American shutterbug has become rich marketing his clever photos of his many Weimeraners.
 - A. William Wegman
- B. This controversial photographer’s work was banned by the Corcoran Gallery in D.C. in the 1980s for its explicit homosexual content.

A. Robert Mapplethorpe

C. Best known for her portrait photos, this woman who has worked much for magazines like Rolling Stone took the famous photo of John Lennon and Yoko Ono called "Hug" just hours before his murder.

A. Annie Leibovitz

7) Identify the name of the famous children's nursery rhyme given a theory as to its real historical basis FTPE.

A. This classic is thought to refer to the Black Death, with the title specifically referring to the rash victims displayed.

A. "Ring Around the Rosie"

B. Various theories abound regarding this favorite, but one states that the title character is Richard III, who fell from his horse and lost his life at Bosworth Field, and thus couldn't be put "back together."

A. "Humpty Dumpty"

C. This rhyme refers to English monarch George IV, who before ascending to the throne scandalized England by having an affair with an 18-year old actress.

A. "Georgy-Porgy"

8) Answer the following about a famous 20th-century Dutch painter.

A. This abstract artist created canvasses geometrically crisscrossed by lines to create various squares and rectangles, some colored, some not.

A. Piet Mondrian

B. Mondrian called described his art with this term, also calling it "de stijl," or "the style."

A. Neo-Plasticism

C. Mondrian's best known painting, it hangs in the Museum of Modern Art in New York, fitting because of its jazzy title.

A. Broadway Boogie Woogie

9) Name these scientists featured on stamps FTPE.

A. Awarded the 1909 Nobel in Chemistry, his namesake reaction involves the production of nitrogen oxide and nitric acid from ammonia and oxygen.

A. Friedrich Ostwald

B. (10 pts. each) This man and his female assistant are featured on stamps for their work that eventually resulted in the construction of the atomic bomb. He is famous for his description of the "blue glow" of Cherenkov radiation and she is famous for publishing an early work on nuclear fission. She also has element 109 named after her.

A. Otto Hahn and Lise Meitner

10) Show off what you know about that great guy, Alexander of Macedon FTPE.

A. In 333 BCE at Issus and in 331 at Gaugamela, Alexander destroyed the forces of what Persian king?

A. Darius III

B. Alexander's men refused to go further east on reaching in 326 the Hyphasis River, which is in what modern nation?

A. India

C. Who was Alexander's father?

A. Philip II of Macedon

11) Name the band behind these 80s New Wave tunes FFPE and a five point bonus for getting them all.

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| A. "Tainted Love" | A. <u>Soft Cell</u> |
| B. "Mexican Radio" | A. <u>Wall of Voodoo</u> |
| C. "Girls on Film" | A. <u>Duran Duran</u> |
| D. "Fascination" | A. <u>Human League</u> |
| E. "Look of Love" | A. <u>ABC</u> |

12) Answer the following about Cooper's Leatherstocking Tales FTPE.

- A. This man is the title character from "The Pathfinder" and "The Deerslayer."
A. Natty Bumppo
- B. This is Bumppo's Mohican companion, a chief.
A. Chingachgook (be lenient with pronunciations)
- C. Bumppo shares what nickname with television's Benjamin Franklin Pierce?
A. Hawkeye

13) Name both parents of the following mythological figures FFPE.

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|-------------|-----------------------------------|
| A. Hercules | A. <u>Zeus</u> and <u>Alcmene</u> |
| B. Hera | B. <u>Cronos</u> and <u>Rhea</u> |
| C. Mercury | C. <u>Zeus</u> and <u>Maia</u> |

14) Identify these random laws or rules of chemistry FTPE.

- A. This law states that at constant temperature, the pressure and volume of a gas are inversely proportional.
A. Boyle's Law
- B. This rule from quantum chemistry states that in orbitals of identical energy, electrons remain unpaired if possible in order to minimize electron-electron repulsion.
A. Hund's Rule
- C. This rule from organic chemistry states that hydrogen atoms are always added to the double-bonded carbon with more hydrogen atoms.
A. Markovnikov's rule

15) Answer the following about the Magna Carta FTPE.

- A. First, what English king signed it?
A. John
- B. In what year?
A. 1215
- C. What pope annulled the charter?
A. Innocent III

16) Identify the British composers of the following works FTPE.

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| A. Enigma Variations | A. Edward <u>Elgar</u> |
| B. Peter Grimes | A. Benjamin <u>Britten</u> |
| C. Fantasia on Greensleeves | A. Ralph Vaughn <u>Williams</u> |

17) Name the authors of these 20th century European plays on a 10-5 basis.

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|-----------------------------------|------------------------|
| A. (10 pts.) The Infernal Machine | |
| (5 pts.) Orpheus | A. Jean <u>Cocteau</u> |

- B. (10 pts.) The Dumbwaiter
(5 pts.) The Birthday Party
C. (10 pts.) Endgame
(5 pts.) Waiting for Godot

A. Harold Pinter
A. Samuel Beckett

18) Given a number, identify the physical constant it represents FTPE. Please note that we want the name and not the one-letter variable.

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| A. 6.626×10^{-34} joule-seconds | A. <u>Planck's</u> Constant |
| B. 8.8542×10^{-12} farads per meter | A. <u>permittivity</u> of free space |
| C. 9.1095×10^{-31} kilograms | A. <u>mass</u> of an <u>electron</u> |

19) Name the amendment to the U.S. Constitution from a brief description FFPE and five more for getting 'em all.

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|--|---------------------------|
| A. Instituted federal income tax | A. <u>16th</u> |
| B. Separate balloting for president and VP | A. <u>12th</u> |
| C. Presidential term limited to ten years | A. <u>22nd</u> |
| D. Eliminated poll tax | A. <u>24th</u> |
| E. Direct election of senators | A. <u>17th</u> |

20) Identify these folks born today, November 9, FTPE.

- A. This Confessional poet, author of "To Bedlam and Partway Back," fought mental illness like her friend Sylvia Plath and committed suicide in 1974.
A. Anne Sexton
- B. This Cornell astronomer and author of the popular book Cosmos, turned into a PBS series, died in 1996.
A. Carl Sagan
- C. Former governor of Maryland, this man served as first vice president under Richard Nixon.
A. Spiro T. Agnew