

Valencia Fall Invitational 2002

Round 7

Questions mostly by CB, with guest appearances by Chip Thomas and various science helpers

1) The only elected office this man held was as an Indiana state representative from Terre Haute in 1885. During that time he was already Grand Secretary of the Brotherhood of Railway Firemen, and eight years later he founded the American Railway Union in Chicago. Jailed for speaking out against American participation in World War I, in 1920 the Socialist Party had buttons made reading "Convict No. 9653 for President." FTP name this firebrand who ran for president five times in the early 1900s.

A. Eugene V. Debs

2) First, electrons are excited and passed to the primary acceptor on the thylakoid membrane, replaced by water which splits, giving off hydrogen and oxygen. The electrons are then passed along the transport train, creating ATP. The electrons are passed again, this time to the NADP⁺ reductase enzyme forming NADPH. The ATP and NADPH are used in the Calvin cycle to turn carbon dioxide into glucose or another organic compound. FTP, name this process that takes place in chloroplasts, which converts light energy into food for plants.

A. photosynthesis

3) His latest literary output is a novella called "Shopgirl." This follows plays like ZigZag Woman, WASP, and the celebrated Picasso at the Lapin Agile, in which a fictional conversation between the painter and Einstein takes place. Two collections of his short works are titled Pure Drivel and Cruel Shoes. FTP name this author better known for his comedy, the man who has hosted "Saturday Night Live" the most times, and whose first film was The Jerk.

A. Steve Martin

4) This structure at birth is dominant, translating a baby's needs into motivational forces, called Triebe (TREE-buh) in the German of its theorizer. This psychic structure works in keeping with the pleasure principle, the demand to immediately fulfill any given need. As humans age, however, this drive is fought more and more by the mores and norms that form the superego. FTP name this part of the unconscious said by Freud to be the repository of all instincts and drives.

A. id

5) The fourth title character is the son of Lizavetta, a local woman, who dies in childbirth. That child is taken in by Grigory, the servant of Fyodor, whom most people assume is the child's father. That child, Smerdyakov, eventually grows up to murder Fyodor, trying to pin the crime on Dmitri. FTP such is the happy plot of what fraternal novel by Fyodor Dostoevsky?

A. The Brothers Karamazov

6) It occurs in regions where the momentum becomes imaginary, resulting in wavefunctions that exponentially grow or decay. Finite barrier width results in a non-zero transmission coefficient, in contradiction to classical physics, which predicts 100% reflection when the potential barrier exceeds the energy of the particle. Used in some types of electron microscopes, FTP particles can leak through barriers in what quantum phenomenon?

A. quantum tunneling

7) The original, created over 2,500 years ago, is lost, and we know it now by a Roman copy made hundreds of years later. That copy exemplifies the *rhythmos* and *symmetria* with which its sculptor endowed it, and is considered superior to copies in the Vatican and British Museum since the figure's head is facing back to his right, in line with the throwing arm. FTP name this sculpture by Myron of an athlete preparing to hurl an object.

A. Diskobolos (acc. "discus thrower")

8) Historians suspect that their name is an adaptation of the German word *Eidgenossen*, or "confederates," as it first was used to designate citizens of Geneva who didn't accept the claims of the Duke of Savoy over that city. In the 16th and 17th century they were most populous in Southern France, and fear of their influence, and concerns about the accession of Henri IV, led to the St. Bartholomew's Day Massacre. FTP who are these historical protestants of France?

A. Huguenots

9) For ten yummy math points, given the differential equation $dy/dx = 0.2xy$, find the slope of a lineal element of the direction field at the point (2,3).

A. 1.2

10) This novel has a sequel, *Closing Time*, published in 1994. The protagonist is haunted by the memory of the death of Snowden, who died in his arms. His squadron's mess officer, Milo Minderbinder, makes a fortune on the black market, while his squadron leader, Major Major, will only see people in his office when he's not there. FTP this describes what 1961 novel by Joseph Heller?

A. Catch-22

11) Last year they went 5-11, their first losing season in 17 years. They joined the NFL in 1961, coached by Norm Van Brocklin, and they first made the playoffs in 1968, then lost to the Chiefs in Super Bowl IV in 1969. They went on to lose three other Super Bowls, all in the 1970s under Bud Grant. Currently led by Mike Tice, FTP name this NFC franchise that employs Daunte Culpepper and Randy Moss.

A. Minnesota or Vikings

12) Opposed to the classical style taught in the Academy, and drawing inspiration from earlier Flemish landscape painters, this group moved away from Paris and settled itself in the forest of Fontainebleau. The rough brush work of Charles Daubigny (daw-bin-yay) and Theodore Rousseau greatly inspired the impressionist painters who came later in the 19th century. Also including Camille Corot, FTP what was this loosely organized French school of painters that has nothing to do with being a model or just looking like one?

A. Barbizon School

13) The speed of light squared times the permeability of free space times the permittivity of free space. The coefficient of static friction needed to just keep a block from sliding down a ramp inclined at 45 degrees. The number of seconds it takes to fall 4.9 meters from rest at the Earth's surface. The kinetic energy in joules of a 2 kilogram mass moving at 1 meter per second. Each of these numbers is, FTP, what smallest whole number?

A. 1

14) The garrison lay at the bottom of a bowl shaped valley and was protected by firebases on nearby

hills named, supposedly, after the mistresses of the garrison commander, Christian de Castries (cas-tree-ay). The main assault on the garrison began on March 13, and its airstrip was soon destroyed, making resupply nearly impossible, though two American civilian pilots were killed trying to parachute in materials, becoming the first Americans to die in Vietnam. FTP name this French outpost which was overrun by the Viet Cong in 1954, ending French power in Indochina.

A. Dien Bien Phu

15) The protagonist of this short story is named for a Mississippi colonel under whom his father briefly served in the Civil War. That father, Abner, harbors a nasty grudge against those he feels snub him, often leading him and his other son Flem to set fire to their stores of grain and livestock. FTP name this short story featuring Sarty Snopes and written by William Faulkner, the title of which refers to Ab's pyromaniac tendencies.

A. "Barn Burning"

16) Standing 630 feet tall, there are 1076 steps to reach its top, though the steps are restricted to maintenance personnel; visitors must ride one of two trams. The focal point of the Jefferson National Expansion Memorial, at its western end lies the Museum of Westward Expansion. Designed by Eero Saarinen as a large catenary curve, FTP this is what dominant figure of St. Louis's skyline?

A. Gateway Arch

17) Diseases that afflict it include Alagille Syndrome, Caroli Disease, Galactosemia, and Wilson's Disease. When a physician takes a biopsy from this organ, the patient must hold his breath for ten seconds to keep still, so the doctor doesn't nick the gall bladder or lower lungs. Also affected by various forms of hepatitis, FTP name this organ that develops cirrhosis if you pound drinks for too many years.

A. liver

18) After routing eleven rival kings who had besieged his court at Caerleon, he defeated the Saxons at Mount Badon. He had been reared by Sir Ector, whom he believed to be his own father, though Ector clearly favored his natural son, Kay. However, Kay lost his sword at a tournament and sent this man to fetch it, thus giving him the chance to prove he was meant to be king. FTP name this man who pulled the sword from the stone, the leader of the Knights of the Round Table.

A. King Arthur

19) When governed by two officials called shophets or sufets in earlier times, this famous city entertained a gruesome custom: the mass sacrifice of upper-class children to Baal-Ammon in times of public crisis. Founded in 814 BCE by colonists from Tyre, it was burned to the ground in 146, its lands salted and survivors sold into Roman slavery. FTP, the ruins of what "new city" can be found about 10 miles from Tunis, the home city of Dido and Hannibal?

A. Carthage

20) First published in 1923, the author's key affirmation is "To man the world is twofold, in accordance with his twofold attitude." Strongly influenced by the author's reading of Kierkegaard in German translation, it argues that the title concept comes in three spheres: man's life with nature, with men, and with intelligible forms. FTP name this work that also examines the "I-it" experience, a book by Martin Buber.

A. I and Thou

VFI 2002-Round 7 Boni

1) Stuff about Plato FTPE.

A. In what Platonic dialogue is the death of Socrates described?

- A. Apology
- B. This is the metaphor Plato uses to describe human inability to see true forms, imagining humans changed in front of a fire, capable only of seeing shadows on the wall.
- A. Allegory of the Cave (acc. "myth" or "figure" instead of "allegory")
- C. The Allegory of the Cave is found in this dialogue.
- A. The Republic
- 2) Name these well known submarines FTPE.
- A. Named for a marine reptile, David Bushnell built this single-man sub in 1776, but it failed to sink the HMS Eagle in the Revolutionary War.
- A. Turtle
- B. Though this Confederate sub sank the USS Housatonic, it sunk soon thereafter. It has recently been raised and will be displayed in Charleston.
- A. Hunley
- C. In 1954 this first nuclear-powered sub was launched by the U.S.
- A. Nautilus
- 3) Answer the following about a certain French guy FTPE.
- A. What 17th century playwright wrote The Bourgeois Gentleman and The Imaginary Invalid?
- A. Moliere (acc. Jean Baptiste Poquelin)
- B. What Moliere play's title character is a religious hypocrite out to scam the family of Orgon?
- A. Tartuffe
- C. What Moliere play's title character is Alceste, who comes to hate the hypocrisy of society, though not necessarily all men, as the title suggests?
- A. The Misanthrope
- 4) Given the name of a polyatomic ion, provide its formula and charge FFPE.
- A. chlorate A. ClO_3 (-1 charge)
- B. peroxide A. O_2 (-2 charge)
- C. permanganate A. MnO_4 (-1 charge)
- 5) Annoy your coach by naming these people associated with the Howard Stern show FTPE.
- A. Howard's longtime producer Gary Dell'Abate goes by this nickname.
- A. Baba Booey
- B. Although he has legally changed his name to Erik, Howard's sound effects man and King of Mars is still called by this original name.
- A. Fred Norris
- C. This comic who had been on Mad TV got the plum gig of replacing Jackie Martling on the show.
- A. Artie Lang
- 6) Answer the following about a dark period in recent American history FSNOP.
- A. (10 pts.) Government investigations into citizens suspected of communism were led by this Congressional committee, headed by J. Parnell Thomas.
- A. House Un-American Activities Committee (accept HUAC)
- B. (5 pts.) This Wisconsin senator is most associated with the harassment of those suspected to have communist ties.

- A. Joseph (Joe) McCarthy
- C. (15 pts.) This name is given to the group of screenwriters, directors and other movie folk who were blacklisted by the major studios after they refused to answer the questions of the HUAC.

A. Hollywood Ten

- 7) Given the opening line of a well known poem, name both the poem's title and its author FTPE.

A. "Whose woods these are I think I know"

A. "Stopping by Woods on a Snowy Evening"; Robert Frost

B. Sunset and evening star/And one clear call for me"

A. "Crossing the Bar"; Alfred, Lord Tennyson

C. "Thou still unravished bride of quietness"

A. "Ode on a Grecian Urn"; John Keats

- 8) Given a gas law, tell the two gas properties it relates FTPE (reader: must get both for ten)

A. Boyle's Law

A. pressure and volume

B. Avogadro's Law

A. volume and number of moles (or molecules)

C. Gay-Lussac's Law

A. pressure and temperature

- 9) Name the composers of the following named symphonies FSNOP.

A. (5 pts.) Symphonie Fantastique

A. Hector Berlioz

B. (5 pts.) Symphony #9, "From the New World"

A. Antonin Dvorak

C. (10 pts.) Symphony #1, "Titan"

A. Gustav Mahler

D. (10 pts.) Symphony #100, "The Military"

A. George Frederic Handel

- 10) Answer the following about curses in baseball FTPE.

A. The Cubs were supposedly cursed by Bill Sianis, a local tavern owner, because he was turned away from Wrigley when he brought what pet, more commonly to be found on a farm?

A. goat

B. The Red Sox are supposedly cursed because they sold this player for \$100,000 back in 1920.

A. Babe Ruth

C. Some suggest the Cleveland Indians are cursed for trading this slugger to Detroit in 1960, though they've made the World Series twice since then.

A. Rocky Colavito

- 11) Provide the following terms which all begin with the same Greek prefix FTPE.

A. Used currently to refer to any agent which cures everything, it originally named the daughter of Asclepius in Greek myth.

A. panacea

B. Now meaning a wild tumult or uproar, this term was used by Milton to name the high capital of Satan in Paradise Lost.

A. pandemonium

C. Meaning "all-sea," this is the name given for the body of water that surrounded the Ur-

continent Pangaea.

A. Panthalassa

12) 30-20-10 Name the island

(30 pts.) Its prime minister is Percival Patterson and its capital has one of the highest murder rates in the world.

(20 pts.) Its highest point is Blue Mountain in the east, famous for the coffee grown nearby.

(10 pts.) Tourism at Montego Bay and Ocho Rios drive this Caribbean island's economy.

A. Jamaica

13) Identify these cranial nerves by their function FTPE.

A. Parasympathetic control of the heart, lungs and abdominal organs, sensation of pain, and movement of the throat muscles.

A. vagus (or ten)

B. Sensations of vision

A. ocular (or two)

C. Sense of hearing and balance

A. auditory-vestibular (or eight)

14) Name these 20th century painters you'd find under the same letter in the phone book FTPE.

A. This Austrian painter and poster maker worked in the Art Nouveau style and is known for his portraits of woman with richly ornamented, often gilt, dresses and backgrounds, as in his famous work *The Kiss*.

A. Gustav Klimt

B. This American Abstract Expressionist is best known for his paintings of forceful black strokes on unadorned white canvases.

A. Franz Kline

C. This Austrian expressionist is best known for the painting *The Bride of the Wind*.

A. Oskar Kokoschka

15) Answer the following about some typically bad American treatment of native peoples FTPE.

A. This tribe of the northwest, named by the French for their warriors= distinctive facial decorations, began a flight toward Canada in 1877.

A. Nez Perce

B. This leader of the Nez Perce, called the Red Napoleon, led them on their 1,300 mile trek.

A. Chief Joseph

C. This veteran of many Indian campaigns captured Chief Joseph and the remnants of the Nez Perce in Montana, 30 miles from Canada.

A. Nelson Miles

16) Name the ancient Greek playwright of the following works on a 10-5 basis.

A. (10 pts.) Iphigenia in Tauris; Alcestis

(5 pts.) Medea; The Trojan Women

A. Euripides

B. (10 pts.) Prometheus Bound

(5 pts.) Agamemnon; The Eumenides

A. Aeschylus

C. (10 pts.) Ajax; Philoctetes

(5 pts.) Antigone

A. Sophocles

17) Answer the following about the polynomial $x^4 - 1$ FTPE.

A. This polynomial has two real roots. How many complex roots does it have?

- A. 2
- B. What is the sum of the four roots?
 - A. 0
- C. Two of the roots are 1 and -i; what are the other two roots?
 - A. -1 and i (must get both for ten)

18) Identify these figures from the books of Samuel in the Old Testament FTPE.

- A. This woman, Samuel's mother, promises he will be raised as a Nazirite if she can conceive.
 - A. Hannah
- B. Samuel anoints this man as first king of the Israelites.
 - A. Saul
- C. Saul has this sorceress call Samuel's spirit up for some advice.
 - A. Witch of En-dor

19) Name these functional groups from their structures FTPE.

- A. Carbon double bonded to an oxygen
 - A. carbonyl (car-bo-NEEL)
- B. Carbon bonded to an oxygen bonded to another carbon
 - A. ether
- C. Carbon double bonded to an oxygen and to an NH_2
 - A. amide

20) Identify the novelists or poets who wrote these important non-fiction works FTPE.

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| A. <i>The Sacred Wood</i> | A. T. S. <u>Eliot</u> |
| B. <i>Testaments Betrayed</i> | A. Milan <u>Kundera</u> |
| C. <i>Travels with Charlie</i> | A. John <u>Steinbeck</u> |