1998 Stanford Cardinal Classic
Tossups written by Stanford
Playoff Packet \#2

1. This phenomenon describes, among other things, the type of radioactive decay in which a nucleus emits an alpha particle. In classical mechanics, a particle with energy $E$ in a potential well will be trapped if $\mathrm{E}<\mathrm{V} 0$, the maximum height of the potential barrier. FTP, give the pop-science buzzword which sounds like it could be a newfangled form of spelunking.

A: quantum (mechanical) TUNNELLING (effect) or BARRIER PENETRATION or TUNNEL EFFECT
2. Its basis was a quarrel between the Catholic families of Lord Petre and Arabella Farmer. The second edition, published in 1717, added the delightful "machinery" of the Sylphs, Belinda's toilet, the card game, and the visit to the Cave of Spleen in canto 4. FTP what is the name of this mock-epic by Alexander Pope?

## A: The RAPE OF THE LOCK

3. This man was the son of the German king Henry I. In 951, after defeating Brenegar II, he became King of Northern Italy. In 962 he was crowned Holy Roman emperor and one year later, in 963 he deposed Pope John XII and had Leo VIII elected in his place. FTP name this Holy Roman Emperor, considered the founder of the First Reich and called "the Great."

A: _OTTO I_(if said before last sentence accept _Otto The Great)
4. In February, 1998, the U.S. Court of Appeals suspended this man*s work until Microsoft's challenge on him was decided. It was not because of an e-mail favoring Netscape's browser, however. FTP, name this Harvard professor appointed as a "special master" in Microsoft's anti-trust case.

## A: Lawrence LESSIG

5. Invented by Paracelsus, the word can refer to a short statement, such as a proverb or maxim. As a race of humanoids, they refer to residents of Storlock in Terry Brooks' Shannara series. In Dungeons and Dragons, they are adept illusionists. FTP, name this race of diminutive creatures who traditionally dwell in the bowels of the earth.

## A: GNOME

6. This band is fronted by one-time Navy recruit turned air traffic controller Chris O*Connor. Their first single, which includes a scratchy sample of B. B. King*s How Blue Can You Get, was one of the leadoff tracks from the soundtrack to "The Cable Guy". FTP, name this band whose biggest hit so far is "Standing Outside a Broken Phone Booth with Moneyrin My Hand".

## A: PRIMITIVE RADIO GODS

7. He is a three-time world champion, and in January 1998, he won his fourth Canadian national title. His only Olympic medal so far is a silver, which he earned in the 1994 games, but he is considered one of the favorites to win gold at Nagano. FTP, give the name of this figure skater, the first to land quadruple/double and quadruple/triple jump combinations in competition.

## A: Elvis STOJKO

8. This man revolted against the Romans because they prohibited the rite of circumcision and refused to allow the Jews to enter Jerusalem except once a year. He defeated the Roman army twice before being beaten by Julius Severus at Bethar in the year 135. FTP name this man, called "son of the stars" by Rabbi Akiba and thought to be the messiah.
9. Born in Florence in 1454, he made four voyages to the new world. His book Mundus Novus claimed that he had discovered a new continent. FTP, name this man who Martin Waldseemueller credited with having discovered America.

## A: Amerigo VESPUCCI

10. Although it has nothing to do with tuberculosis, this Group 3-b element was discovered in 1843 by Carl Gustaf Mosander. FTP, name this rare earth with atomic number 65 and symbol TB.

## A: TERBIUM

11. Born during a terrible drought, he is covered in hair at birth, like a young bear, and is so strong that, though he is chained to a cradle, he breaks the bond into five hundred pieces with a single blow of his infant fists. FTP name this son of Badebec and Gargantua, the principal character in Rabelais' greatest satire.

## A: PANTAGRUEL

12. He began his association with the federal government in 1975, as a law clerk to Chief Justice Warren Burger. He was appointed as a judge to the U.S. Circuit Court of Appeals by President Reagan, and served in that capacity from 1983 until 1989. FTP, name this attorney who, from August 1994 until the present, has been the Special Prosecutor investigating the Clinton Whitewater scandal.

## A: Kenneth STARR

13. *I have come into this world for no purpose but to compose,* said this man, who in a very short life wrote nine symphonies, 21 piano sonatas, 19 string quartets and over 600 songs, but not a single concerto. FTP, name this composer, little known in the Beethoven-dominated Vienna, who wrote the *Wanderer Fantasy,* *Death and the Maiden,* of whose eighth symphony only two movements exist.

## A: Franz SCHUBERT

14. Civ II players know you can't do this to a democracy, but Che Guevara developed this revolutionary theory of elitist rebels into a modus operandi across Latin America that says that a small cadre of revolutionaries can upend a whole society, without preexisting revolutionary conditions. FTP, name the theory.
A: FOCO theory
15. His experiences during the Mexican revolution provided the material for his first book, Insurgent Mexico. A friend of Lincoln Steffens and Eugene O'Neill, he also worked for the bureau of propaganda in Russia, recording an eyewitness account of the Russian Revolution in Ten Days that Shook the World. FTP, name this poet buried in the Kremlin.

## A: John REED

16. It is the ancient name for the eastern coastal region on the Adriatic, north of the Gulf of Corinth, and conquered by Philip of Macedon. Becoming a Roman province in 9 AD , the Albanians are the survivors of its ancient peoples. FTP name this region also titling the land where Shakespeare's Twelfth Night takes place.

Answer: ILLYRIA
17. The first person to be indicted by the Justice Department's campaign finance task force, he was thought to be in China until recently, when he flew from Indonesia to Paris and then to Washington D.C., where he turned himself in to the FBI. FTP name this man, essentially accused of purchasing access to government officials with illegal contributions, who raised about \$100,000 for the Democratic Party in 1996.

## A: Yah Lin Charlie TRIE

18. A railroad through it connects Jamrud with Landi Khana, needing 34 tunnels and 94 bridges to do it. Throughout the second half of the last century, the British fought the local inhabitants, the Afridis, for control of it because of its importance to India*s northwest frontier. FTP, name this mountain pass in Pakistan, which has served as an invasion route into India since the time of Alexander the Great.

A: The KHYBER Pass.
19. Dutch-born Andreas Cornelius van Kujik (KOY ik) was easily one of the most important people in twentieth-century music. Because of his immigration status, he made sure to never leave the country, and as a result, Elvis Presley never toured outside the United States. FTP, name Elvis*s manager, who, contrary to his pseudonym, never served in the U.S. Armed Forces.
A: Colonel Tom PARKER
20. A Phi Beta Kappa student and an All-American football star at Rutgers University, he won fame for his roles in O'Neill's All God's Chillun Got Wings and The Emperor Jones. FTP name this imposing bassbaritone who sang "Ol' Man River" in Jerome Kern's Show Boat?

## A: Paul ROBESON

21. She was the daughter of a prefect of Rome and the wife of Tarquinius Collatinus. After being raped by Sextus, the son of the king Tarquinius Superbus, she killed herself. FTP name this legendary woman, the subject of a poem by Shakespeare.
A: LUCRETIA
22. It flows from Moskenesoya (Moss ken ah SOY ah) island in the north to Mosken in the south and moves at about a rate of 5 m.p.h., making sailing a dangerous business in that part of the Norwegian Sea. Ahab intended to chase Moby Dick there, and in is where Captain Nemo disappeared. FTP name this current whose turbulent nature has leant its name to a state of chaos.

## A: The Norway MAELSTORM

23. This theory emphasized the importance of interest rates on the demand of money and was developed by Keynes. In the theory, Keynes postulated three motives behind the demand for money: transaction motive, precautionary motive, and the speculative motive. FTP, name this theory which purports a relation between interest rate and real income with money demanded

## A: LIQUIDITY PREFERENCE Theory

24. This class of worm possesses a pseudocoel (SOODO-SEEL) and is usually parasitic. They have two openings to the gut, which separates them from flatworms. FTP, give the scientific name for the roundworm.

## A: NEMATODE, or NEMATODA

25. In one legend it belonged to Achelous. In another it is connected to Amaltheia, the goat that had suckled the infant Zeus. Providing an endless supply of food to its possessor, FTP name this mythological "horn of plenty."

Answer: CORNUCOPIA (prompt on "horn of plenty")
26. When he made his debut at the Shea Stadium, this native of Japan made baseball history by becoming the first Asian to pitch in the Major Leagues. Name this member of the 1964 and 1965 San Francisco Giants.

## A: Masanori MURAKAMI

27. This small German jet fighter made of wood was intended to be produced in massive numbers in the waning days of the Second World War to battle the swarms of Allied heavy bombers. Name this aircraft, also known as the "volksjaeger" or the "people's fighter."

A: Heinkel He-162
28. The recent currency crisis in East Asia brought International Monetary Fund into news often. But do you know the head of this organization? For 10 points, name the managing director of the IMF.

## A: Michel CAMDESSUS

29. Express your answer in the same way vectors are expressed in the question. What is the cross product of the vectors three-one-four and one-five-nine?

A: $-11,-23,13$
30. Multiply the number of nucleons in an Alpha particle by the number of books in Plato's Republic and add the result to the number of keys you need to press simultaneously to soft boot a PC running DOS 5.0. FTP, what need to press simultaneously to soft boot a PC running DOS 5.0. FTP, what number do you get?

A: $43(4 * 10+3=43)$
30. Commanding the U.S. landing forces on Okinawa in 1945 was this son of a Confederate officer named after a South American revolutionary. He would become the highest ranked U.S. casualty when he was struck by a sniper's bullet. FTP, name him.

## A: Simon Bolivar BUCKNER

31. In September, 1997, NASA's Mars Global Surveyor was inserted into a highly elliptical orbit around Mars. Rather than burning fuel it didn't posess to achieve a circular orbit, it is using, FTP, what timeconsuming technique of using the Martian atmosphere itself to slow down?

## A: AEROBRAKING

## Extras (Do NOT use)

Provisions of this treaty included extradition in some criminal cases and American navigation rights on the St. John River. It is best known, though, for fixing the boundary between Maine and New Brunswick. FTP, name this 1842 treaty between the U.S. and Great Britain.
A: WEBSTER-ASHBURTON Treaty
This man was the third ruler of the 19th Dynasty and the son of Seti I. He reigned from 1279-1212 b.c.e., one of the longest rules for any Egyptian pharoah. His principle enemy was the Hittites who he fought a long war with until 1258 when they agreed to a truce. FTP name this pharoah, who also appears as the Pharoah in The Ten Commandments, and whom some scholars believe was the Pharoah during the Exodus. A: RAMSES II

1998 Cardinal Classic
Bonus Questions written by Stanford University
PLAYOFF PACKET \#2
(Science)
Bonus 1: Pencil and paper ready. For five points apiece and a bonus 15 for all correct, match each of the following types of speciation to its definition: Allopatric, Peripatric (spell), Parapatric (spell).
A) (5) Geographic barrier established to prevent gene flow

Answer: ALLOPATRIC
B) (5) envoironmental discontinuity in which abrupt change in conditions leads to evolution of new species

Answer: PARAPATRIC
C) (5) Peripheral isolate of species rapidly evolves into new species

Answer: PERIPATRIC
(Literature)
Bonus 2: Name the following works by Thomas Mann from short descriptions for the stated number of points.
A) (5) A renowned and austere German writer becomes infatuated with a Polish boy while on vacation in the Mediterranean.
Answer: "DEATH IN VENICE"
B) (10) A German engineer immediately before the war attempts to rid himself of tuberculosis at a Swiss sanatorium.
Answer: "THE MAGIC MOUNTAIN"
C) (15) A family vacationing in Italy attends a magic show in which the performer torments a member of the audience so much that the audience member kills him.
Answer: "MARIO AND THE MAGICIAN"
(History)
Bonus 3: Answer the following questions about Andrew Johnson's impeachment, FTPE.
A) (10) Johnson was impeached after he fired this man from office.

Answer: Edwin M. STANTON
B) (10) Congress claimed that Stanton's firing violated this law.

Answer: The TENURE OF OFFICE ACT
C) (10) This Senator was credited in Kennedy's Profiles in Courage with being the swing vote that saved Johnson from conviction.
Answer: Edmund ROSS
(Current Events)
Bonus 4: Scandals have rocked the military from the Commander in Chief on down. For 15 points each, name these two service secretaries who have resigned in the past year due to scandals, not necessarily of their own making.
a) This ex-Assistant Secretary of the Army resigned in November after calling the Marines a "bunch of extremists" in a speech in October.
Answer: Sara LISTER
b) This Secretary of the Air Force was worn down and out into early retirement by the Kelly Flynn scandal.

Answer: Sheila WIDNALL
(Popular Culture)
Bonus 5: Name the actor from characters 30-20-10.
A) (30) The Archangel in "Slam Dunk Ernest"
B) (20) Roger Murdock in "Airplane!"
C) (10) His full name at birth was Ferdinand Lewis Alcindor, Jr.

Answer: KAREEM ABDUL-JABBAR (accept "Ferdinand _LEW_is ALCINDOR, Jr." before the 10-point clue)
(Science)
Bonus 6: Everybody's favorite: diseases of the neuromuscular junction. Identify these two from a brief description for fifteen points each.
A) (15) The immune system forms antibodies against the acetylcholine [AE-se-teel-KO-leen] receptors at the neuromuscular junction.
Answer: MYASTHENIA gravis
B) (15) The immune system forms antibodies against the Calcium channels in the pre-synaptic part of the junction.
Answer: LAMBERT-EATON myasthenic syndrome (accept MYASTHENIC SYNDROME)
(Literature)
Bonus 7: Given lines of poetry, F15PE tell who wrote them, or receive 5 points if you need the title of the poem.
A) (15) "Home is the place where, when you have to go there,

They have to take you in."
(5) Title: "Death of the Hired Man"

Answer: Robert FROST
B) (15) "Kamal is out with twenty men to raise the Border-side, And he hath stolen the Colonel's horse, that is the Colonel's pride."
(5) Title: "The Ballad of East and West."

Answer: Rudyard KIPLING
(History)
Bonus 8: Given the first ruler in a British royal house, name the last ruler in that house, FTPE.
A) James I

Answer: ANNE
B) Edward IV

Answer: RICHARD III
C) William I

Answer: STEPHEN
(Fine Arts)
Bonus 9: Answer the following questions about Giacomo Puccini and his operas for the stated number of points.
A) (5) What is the collective name given to Puccini's three-one act operas, "Il Tabarro," "Suor Angelica," and "Gianni Schicchi?"
Answer: IL TRITTICO
B) (10) The idea to set "a Boheme" to music only came to Puccini after he had heard that what friend and colleague was working on the same project?
Answer: Ruggiero LEONCAVALLO
C) (15) Puccini's death in 1924 prevented him from finishing "Turandot," his final opera, but another composer wrote the last scenes of the opera based on Puccini's notes. Name that composer.
Answer: Luigi ALFANO
(Social Science)
Bonus 10: For 5 points apiece, and an extra 10 points for getting them in order from youngest to oldest, name Piaget's four stages of cognitive development through which every child progresses.
Answer: SENSORIMOTOR, PREOPERATIONAL, CONCRETE OPERATIONS (or CONCRETE
OPERATIONAL), FORMAL OPERATIONS (or FORMAL OPERATIONAL)

## (Science)

Bonus 11: F15P each answer these questions about Spice Girl science.
A) (15) Scary Spice is dropped of the roof of a 125 -meter-tall building. Assuming her initial velocity (due to flailing, etc.) and air resistance are negligible and acceleration due to gravity is a constant 10 meters per second squared, how fast is she going when she hits the ground?
Answer: 50 METERS PER SECOND
B) (15) One down, four to go. Posh Spice is sick of Ginger Spice, so she wants you to help her put together some TNT to blow Ginger Spice away. Posh has some benzene, but needs toluene. With what does she need to replace a hydrogen atom in each benzene molecule to get toluene?
Answer: CH3
(Literature)
Bonus 12: Answer the following questions about great curses:
A) (10) FTP, what famed literary character first uttered the curse, "From Hell's heart I stab at thee, for hate's sake I spit my last breath at thee!"
Answer: Captain AHAB (do not accept Khan from "Star Trek II" - he isn't "literary")
B) (20) FTP, what operatic character uttered the famous curse, "Hell's revenge cooks in my heart, death and despair flame about me! If Sarastro does not through you feel the pain of death, then you will be my daughter nevermore," and for another ten points, to whom is this spoken?
Answer: The QUEEN OF THE NIGHT from Mozart's Magic Flute (or KOENIGIN DER NACHT from Die Zauberflote) and PAMINA

## (Current Events)

Bonus 13: We all know that Saddam and others are developing weapons of mass destruction, but how much do you know about their antidotes?
A) (15) This antidote to nerve gas, given to troops in the Gulf War, apparently doesn't like bug spray, or so say the vets with Gulf War syndrome.
Answer: ATROPINE
B) (15) The preferred treatment for anthrax, this powerful antibiotic has been promised to the Israelis if tensions grow further.
Answer: STREPTOMYCIN
(General Knowledge)
Bonus 14: Name these engineering feats for 15 points each.
A) (15) The world's longest suspension bridge, set to open in Japan in April 1998.

Answer: The AKASHI KAIKYO Bridge
B) (15) The worlds tallest buildings - twin towers in Malaysia.

Answer: The PETRONAS Twin Towers
(Sports)
Bonus 15: FFPE, name any six of the seven new Olympic events at the Nagano games. Note that events that were previously only exhibition are considered new.
Answer: MEN'S CURLING, WOMEN'S CURLING, MEN'S SNOWBOARDING GIANT SLALOM, WOMEN'S SNOWBOARDING GIANT SLALOM, MEN'S SNOWBOARDING HALFPIPE, WOMEN'S SNOWBOARDING HALFPIPE, WOMEN'S ICE HOCKEY

## (General Knowledge)

Bonus 16: Give the common name for the Boolean operators on $P$ and $Q$ represented by the following expressions FTPE.
A) (10) not P and not Q

Answer: NOR
B) (10) not P or not Q

Answer: NAND
C) (10) not P or Q

Answer: IMPLICATION or IMPLIES

## (Religion)

Bonus 17: Identify these pairs of brothers in order, older to younger.
A) (10) Isaac was tricked by his wife Rebecca into giving his younger son the better blessing. FFP, who were the two sons?
Answer: ESAU and JACOB (also accept ISRAEL instead of JACOB)
B) (10) His eleven brothers tossed him in a pit and then sold him into slavery because Jacob loved him the most; his eldest brother spared this life, however. FFP each, name the two.
Answer: REUBEN and JOSEPH
C) (10) One of the first examples of non-feuding brothers in the Bible, these two were the sons of Joseph and Asenath, the daughter of Poti-pherah priest of On. FFP each, name these two, who also got blessed in the wrong order.
Answer: MANASSEH and EPHRAIM

## (Geography)

Bonus 18: No wussy "identify the state from nickname" bonus for y'all. Instead, identify the state from their state flower, for the stated number of points.
A) (5) Mayflower

Answer: MASSACHUSETTS
B) (10) Sagebrush

Answer: NEVADA
C) (15) Mistletoe

Answer: OKLAHOMA
(Science)
Bonus 19: Given the title of a book on pop mathematics, give it's author, FTPE:
A) (10) "Innumeracy"

Answer: John Allen PAULOS
B) (10) "Aha! Gotcha"

Answer: Martin GARDNER
C) (10) "How to lie with statistics"

Answer: Darrell HUFF
(Literature)
Bonus 20: Name the author from works on a 30-20-10 basis.
A) (30) "Time's Laughingstocks," "Satires of Circumstance"
B) (20) "Under the Greenwood Tree," "The Woodlanders"
C) (10) "Jude the Obscure," "The Mayor of Casterbridge"

Answer: Thomas HARDY
(General Knowledge)
Bonus 21: Clio, Calliope, and Terpsichore are three of the better known muses. FFP each, a-muse us with the names of the other six.
Answer: MELPOMENE, EUTERPE, POLYHYMNIA, URANIA, ERATO, THALIA

## (Popular Culture)

Bonus 22: Ah, comic strips! Especially that witty J. C. Duffy and his "The Fusco Brothers." We hope you're familiar with them because you'll get five points each for naming all four Fusco brothers and another ten for naming their dog.
Answer: $\underline{\text { LARS, LANCE }, ~ R O L F}, \underline{\text { AL, and their } \operatorname{dog} \text { AXEL }}$
(History)
Bonus 23: History is fun. Answer the following about a WWII-related event F15PE.
A) (15) Charles Butler McVay, III was the first officer in the history of the United States Navy to be courtmartialled for losing his ship to the enemy in time of war, after a Japanese submarine sunk his ship on July 29, 1945. FTP, what was the name of his ship?
Answer: (U.S.S.) INDIANAPOLIS
B) (15) FTP, from what secret mission was the Indianapolis returning when it was sunk?

Answer: Delivering parts of the ATOMIC BOMBs to Tinian Island to be used on Hiroshima and Nagasaki (accept equivalents)
(History)

Bonus 24: Answer these questions about the early years of communism in China, FTPE.
A) (10) First, name the 6,000-mile trek Mao and his followers made in 1934-35 to a safe base in the north.

Answer: The LONG MARCH
B) (10) They were pursued on the Long March by members of what opposing party?

Answer: The NATIONALIST Party or GUO MIN DONG or KUO MIN TANG (prompt on KMT)
C) (10) Who was the leader of the Nationalist Party at the time of the Long March?

Answer: CHIANG Kai-Shek (do not even prompt on "Kai-Shek")
(Current Events)
Bonus 25: The Nagano Winter Olympics have been going on for several days now, but have you been paying attention to the mascots?
A) (5) First, FFP, what is the name for the group of mascots?

Answer: SNOWLETS
B) (25) Now, FFPE, plus an extra five points for all four correct, name the Snowlets.

Answer: SUKKI, NOKKI, LEKKI, TSUKKI

## Extras (Do NOT use):

(Current Events)
Bonus: If you know the Valley, you know Moore's Law. Answer these chip questions 5-10-15.
A) (10) This company just bought out Digital Equipment Corp for $\$ 9.6$ Billion.

Answer: COMPAQ
B) (10) DEC made the previously fastest chip, the Alpha, which runs at what speed?

Answer: 500 MEGAHERTZ
C) (10) IBM recently announced the current fastest chip, fabricated in Fishkill, NY. This one runs at what speed?
Answer: 100 MEGAHERTZ or 1 GIGAHERTZ
(Current Events)
Bonus: Answer the following about cream pies for the stated number of points.
A) (5) For 5 points, what famous person was smashed with a cream pie on 4 February $1998 ?$

Answer: William "Bill" H(enry) GATES, III
B) (10) For 10 points, in what capital did the incident take place?

Answer: BRUSSELS, Belgium
C) (15) For 15 points, name the Belgian who has made a name for himself throwing pies in the faces of the rich and famous. It is unclear if he was involved.
Answer: Noel GODIN
(Geography)
Bonus: Spice Girls. You can't live with 'em and you can't kill 'em - at least not without serious repercussions. Do the next best thing - separate them. You'll get ten points each - and everybody*s gratitude - if you can answer, within $10 \%$, these geographical measurement questions. Sorry to be so restrictive, but your answer must be in feet, meters, or miles.
A) (10) If you take Scary and Baby Spice to the top of Mt. Everest, how high will you go?

Answer: 26,125-31,931 ft.; 7963-9732 m; or 4.94-6.05 mi.
[Exact: $29,028 \mathrm{ft} .(8,848 \mathrm{~m})$ ]
B) (10) Now that you've frozen two of them, you decide to take Posh and Ginger Spice to the depths of the Mariana Trench. How far down will they go if they go as far as the deepest bathysphere has?
Answer: 32,229-39391 ft.; 9824.4-12,007.6 m; or 6.10-7.47 mi.
[Exact: $35,810 \mathrm{ft} .(10,916 \mathrm{~m})$ ]
C) (10) Of course Sporty Spice isn't that easy to dispose of. So you decide to take no chances - you'll send her to the moon. How far from the surface of Earth, on average, will her carcass be once she is on the moon?
Answer: 1,140,004,800-1,393,339,200 ft.; 345,960,000-422840,000 m; or 215,910-263,890 mi.

