FUCT 2002: The Fabulous Unnamed Chicago Tournament
Tossups by Chicago High Maintenance (Will Baude, Amanda Butler, Kathleen Moriarty, Nick Poulos) (with help by Susan Ferrari)

1. Contrary to a claim in a recent April Fool's Day prank, it isn't based on the patented Pigeonrank technology. Used over 150 million times a day, it was developed as a Stanford Research Project in 1999 by Larry Page and Sergey Brin and remains the most popular website of its kind, despite competition from teoma, wisenut, and altavista. For 10 points-name this internet search engine with a log of over 2 billion websites.
answer: www.google.com
2. A former U.S. Senator and minister to Russia, he began introducing Harriet Lane into his social circles when he served as Secretary of State, and later became Franklin Pierce's minister to Great Britain. Harriet, his niece, became his official hostess, both at his Wheatland mansion in Pennsylvania and at the White House. For 10 points-name this fifteenth president of the U.S., the only president who never married.
answer: James Buchanan
3. In humans, these range, on average, from 2 to 3 micrometers in length, measured between membranes called Z-lines. The optimal length in the heart is 2.2 micrometers, which generates the optimal amount of force. They shorten during excitation-contraction coupling and thereby cause the larger myocete to contract, due to myosin and actin filaments sliding over one another. For 10 points-name these basic contractile units of the muscle.
answer: sarcomeres
4. Nabokov insists that this story's protagonist must have had wings, and thus should have been able to fly out the window when the maid opened it. The main character leaves his room when he hears his sister Grete playing the violin, scaring the lodgers with his ugly new look; the charwoman finds his dead body in the morning. For 10 points-name this Franz Kafka story in which Gregor Samsa is transformed into an insect.
answer: The Metamorphosis (die Verwandlung)
5. Alcindoro is sent off to fetch a new pair of shoes for his mistress, but upon returning, he finds that he has been left with the bill. His mistress, Musetta, is temporarily reunited with her former lover, Marcello, and they sing a quartet with the other pair of lovers in the opera, Roderigo and

Mimi, before Mimi's death from consumption. For 10 points—name this opera, set at the Café Momus and composed by Giacomo Puccini.
answer: La Boheme
6. The name's the same. One was the daughter of Raguel and Edna. The demon Asmodeus killed all her husbands, but Tobias then killed the demon and married her. The other married the king of Egypt, who soon learned that her companion was not her brother, but her husband. Later on, she laughed when told that she would have a child, but gave birth to Isaac. For 10 pointsname these Biblical women, one of whom was Abraham's wife.
answer: Sarah
7. Leffler's assumption, widely known as the Hammond Postulate, predicts the structure of these based on the products, the reagents, and the energy of the reaction. They have the highest energy on a reaction coordinate diagram, and unlike intermediates, cannot be isolated. They are commonly bracketed with a double dagger to emphasize their instability. For 10 points-name this short-lived compound in a reaction.
answer: transition state (accept activation complex)
8. His interest in social and educational reform led him to found an experimental school devoted to the educational ideals of the Upanishads. An ardent nationalist, he surrendered his British knighthood after the massacre at Amritsar, but he is better known for the 1912 publication of his Gitanjali, or Song Offerings, and for winning the Nobel Prize in 1913. For 10 points-name this Bengali poet.
answer: $\quad$ Rabindranath Tagore [ta-GOH-ray] (or Ravindranath Thakura)
9. The rebels in this war demanded the right to cut firewood from the forest, the abolition of the death tax, and the right to appoint their own pastors. Though the insurgents expected support, Martin Luther condemned the war's participants in his Admonition to Peace and later sided with the feudal lords against the dissenters. For 10 points-identify this German war of 1525 , named for its rebellious rural participants.
answer: Peasants' War of 1525 (Accept Bauernkrieg)
10. In a perfect first-degree case, it eliminates the deadweight loss due to horizontal monopoly and transfers all consumer surplus to the monopolist. In its second degree, the good's price can
be made to vary with the quantity sold, but not across different consumers. In its third degree, the price can vary only from person to person, as in senior citizen discounts. For 10 pointsname the practice of selling different units of output for different amounts.
answer: price discrimination
11. Although this team originated in Cleveland, Ohio, it rose to national prominence after moving to California. During the 1980s and the early 1990s, Jim Everett and Flipper Anderson gave them a fearful passing attack; earlier in the 1980s, Eric Dickerson racked up huge yards on the ground. For 10 points-name this NFL team which in the 1960s featured the Fearsome Foursome, and which now plays in St. Louis.
answer: the Rams (accept the "LA Rams" until the St. Louis clue)
12. Its name comes from a $17^{\text {th }}$ century tailor's name for a frilled collar. You can find the Pepsi Trocadero there, and at its center is a statue of Christian charity officially named the "Shaftsbury Monument," which most people refer to as "Eros." It sits at the confluence of Regents, Shaftsbury, and Haymarket, three of London's busiest streets. For 10 points—name this traffic circle, also the namesake of a London Underground line.
answer: Piccadilly Circus
13. The protagonist professes himself to be besotted by women with beautiful hair. He rhapsodizes about the hair of Fotis, whom he then seduces. When she takes him to see her mistress Pamphiles transform herself into an owl, he decides to perform the same trick, but Fotis grabs the wrong jar of ointment, causing a different transformation. For 10 points-name this Apuleius work about the title character's adventures as a donkey.
answer: $\quad$ The Golden Ass (accept Metamorphoses)
14. The second ruler of this kingdom, Uli, spread his influence across the region. Later kings, or mansas, included Sakura, but this empire's greatest monarchs were its founder, Sundiata, and the king under whose rule it reached its golden age, Kankan Musa. For 10 points-name this African empire, whose $14^{\text {th }}$-century Islamic culture was centered in the cities of Gao, Jenne, and Timbuktu.
answer: Mali
15. Its magnetic field is mu-naught i-naught $n$, where n is the number of turns per unit length.

Because of the invariance of its magnetic field over a cross-section, it is useful for discussing magnetic flux. For 10 points-identify this construction, a long wire wound in a close-packed helix, which when bent into the shape of a doughnut is called a toroid.
answer: solenoid
16. The first person the title character meets is Dr. Elvin Gadd, a scientist who is concerned by the disappearance of the protagonist's brother. The doctor then equips our hero with a modified vacuum cleaner called the Poltergust 3000 and instructs him to clean out the titular location of ghosts. For 10 points-this is the premise of what Gamecube launch game, which finally puts the focus on Mario's neglected brother?
answer: Luigi's Mansion
17. A 1963 study of cavers who spent two weeks in Mammoth Cave was one of the earliest official documentations of them. The spelunkers' suprachiasmatic nuclei regulate these, so that despite a constant temperature and humidity, and an absence of sunlight, the spelunkers went to sleep and woke up at approximately the same time each day. For 10 points-name this rhythm of activity and rest lasting 24-26 hours.
answer: circadian rhythm
18. He has proposed the creation of a government ministry for animals, demanded the repeal of the income tax, and denounced the euro as "the currency of occupation." His former deputy started a rival National Republican Movement, but, on his fifth try, this man still received $17 \%$ of the vote in his most recent bid for president. For 10 points-name the 73 -year-old leader of France's far-right National Front.
answer: Jean-Marie Le Pen
19. It is $175,000 \mathrm{~km}$ for Jupiter and 147,000 for Saturn. In general, it is defined as 2.446 times the radius of the planet if the planet and the moon have identical densities, and for ringed planets it represents the rough boundary between each planet's ring system and its innermost larger moons. For 10 points-name this limit, the closest distance a large moon can come to a planet without being pulled apart by the planet's tidal force.
answer: Roche limit
20. "Higher Laws," "Brute Neighbors," "Winter Animals," and "House-Warming" are among this book's 18 chapters. Its author concludes that "only that day dawns to which we are awake," after describing the low cost of living by his own hands near a pond in Concord, Massachusetts. For 10 points-name this book, preaching the importance of a simple life, by Henry David Thoreau.
answer: $\quad \underline{\text { Walden, or Life in the Woods }}$

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1. 30-20-10. Name the writer.
a) His works include The Coast of Utopia, a trilogy of plays about $19^{\text {th }}$-century Russian history, and Every Good Boy Deserves Favour, about a dissident in a mental asylum.
b) A screenwriter for Shakespeare in Love, he dealt with the life of A. E. Housman in the play The Invention of Love.
c) This Czech-born English playwright is best known for Rosencrantz and Guildenstern are Dead.
answer: $\quad$ Tom Stoppard (or Tom Straussler)
2. Identify the following about a recent controversy in African-American studies, for 10 points each:
a) This author of Race Matters recorded a rap album and endorsed Al Sharpton for president, and is now leaving Harvard after a dispute with its president.
answer: Cornel West
b) This economist and Harvard president, Bill Clinton's third Secretary of the Treasury, has been criticized by some for his handling of the controversy.
answer: Lawrence Summers
c) This chair of Harvard's African-American studies department is known for increasing his department's prestige, but is also thinking about leaving for Princeton.
answer: Henry Louis Gates, Jr.
3. Name these Hawaiian monarchs, for 10 points each:
a) Five monarchs shared this name. The first of the name was the first man to rule over a united Hawaii, while the third was temporarily deposed in 1843.
answer: Kamehameha [ka-MAY-ha-MAY-ha]
b) The last monarch of Hawaii, she was overthrown by Sanford Dole in 1893. She also wrote "Aloha 'Oe" [a-LO-ha OY-eh], perhaps the most famous Hawaiian song.
answer: Liliuokalani [lee-lee-OO-oh-kah-LAH-nee]
c) This man, Liliuokalani's brother and predecessor, revived the hula, but was forced to sign the "Bayonet Constitution" (which limited the monarch's powers.)
answer: Kalakaua [kah-lah-ka-OO-ah]
4. Name these terms from special relativity, for 10 points each:
a) This vector space, with metric $d s$ squared $=d x$ squared $+d y$ squared $+d z$ squared $-c$ squared dt squared, is the geometry of flat spacetime in SR.
answer: Minkowski space
b) This set of transformations includes rotations, boosts, and translations and always leave the Minkowski metric invariant.
answer: Poincare transformations
c) This set of transformations, a subset of Poincare transformations, includes only boosts and rotations. It is named for a Dutch Nobel laureate.
answer: Lorentz transformations
5. Name these Mexican bodies of water, 5-10-15:
a) This river passes through Nuevo Laredo and Ciudad Juarez, and forms much of the border with Texas.
answer: the Rio Grande
b) The Colorado River flows into this western gulf, which is also known as the Sea of Cortes.
answer: Gulf of California or Golfo de California
c) The states of Veracruz and Tabasco sit along this bay, a southern extension of the Gulf of Mexico, along with a state and city of the same name.
answer: $\quad$ Bay of Campeche
6. Name these things related to eschatological poetry, for 10 points each.
a) Though Robert Frost holds with those who favor fire, he thinks that this would also be a nice way for the world to end.
answer: ice
b) This T. S. Eliot poem closes, "This is the way the world ends/ This is the way the world ends /This is the way the world ends/Not with a bang but a whimper."
answer: The Hollow Men
c) "And what rough beast, its hour come round at last, /Slouches towards Bethlehem to be born?" asks this William Butler Yeats poem.
answer: The Second Coming
7. Name these reactions from organic chemistry, for 10 points each.
a) In this cycloaddition reaction, an alkene adds to a 1,3-diene to form a 6-membered ring. answer: Diels-Alder reaction
b) In this reaction, an electron attacks a benzene ring, and the resulting rearrangement results in the benzene ring turning into a 1,4-cyclohexadiene.
answer: $\quad$ Birch reduction
c) A ketone or aldehyde is combined with hydrazine, changing the carbonyl group into an imine, then is treated with a base, thus reducing the compound.
answer: Wolff-Kishner reduction
8. 30-20-10. Name the monarch.
a) Rim-Sin of Larsa was the chief rival of this man, the sixth king of the Amorite dynasty.
b) When he conquered southern Babylonia around 1700 BC , he refused to have himself deified-setting a precedent that would survive until the Hellenistic era.
c) This Old Babylonian king is best known for his legal code.
answer: $\quad$ Hammurabi (accept Hammurapi)
9. Answer the following about the Dies Irae, for 10 points each:
a) The Dies Irae is substituted for the Alleluia in this kind of mass, the musical setting of the Missa pro Defunctus.
answer: Requiem Mass
b) This Romantic composer used the Dies Irae as a major theme in his Totentanz.
answer: Franz Liszt
c) The rubrics of the Roman Missal prescribe the recitation of the Dies Irae on this Catholic holy day, which is celebrated on November 2.
answer: $\quad$ All Souls' Day (not All Saints'!)
10. According to Forbes Magazine, Bill Gates is the $5^{\text {th }}$ richest American in history, adjusting for inflation. Name these men from the top four, for 10 points each:
a) The richest American in history was this founder of the Standard Oil Company, who also helped found the University of Chicago.
answer: John D(avison) Rockefeller
b) The second richest man, a former factory worker, helped found the steel industry in Pittsburgh. His book, The Gospel of Wealth, outlines his ideas that the rich are obligated to give away their fortunes.
answer: Andrew Carnegie
c) The fourth richest man founded the American, Pacific, and Southwest Fur Companies. He is the first American millionaire on record.
answer: John Jacob Astor
11. 30-20-10. Name the band from lyrics.
a) "As you fall from grace the only words you say are/ 'Put your hand inside the puppet head'"
b) "Ana Ng [ENG] and I are getting old,/ and we still haven't walked in the glow of each other's majestic presence"
c) "Not to put too fine a point on it,/ say I'm the only bee in your bonnet./ Make a little birdhouse in your soul"
answer: $\quad$ They Might Be Giants or TMBG
12. For 10 points each, name these Manet paintings from descriptions.
a) The title nude, who was pejoratively described as a "yellow-bellied odalisque" by critics, lies on a bed, staring calculatingly at the viewer. In the background, a slave holds a bouquet.
answer: Olympia
b) A naked woman sits with two fully-dressed men under trees while a clothed woman crouches in the background.
answer: Le Dejeuner sur l'Herbe (or The Luncheon on the Grass or The Picnic)
c) A redheaded woman in a square-necked dress stands in the center, with several bottles of champagne and a bowl of red fruit. The reflection in the background does not match the foreground.
answer: $\quad \mathrm{A} \underline{\mathrm{Bar}}$ at the Folies-Bergere
13. For 10 points each, name these poems that are featured in London's "Poems on the Underground" project.
a) "A thing of beauty is a joy forever" is the best-known line from this Keats poem on a mythological theme.
answer: Endymion
b) "What immortal hand or eye / Could frame they fearful symmetry?", William Blake asks in this poem.
answer: The Tyger
c) Ben Jonson proclaims, "Drink to me only with thine eyes" to the titular woman of this poem.
answer: $\quad$ Song to Celia
14. Name these concepts from ecology, for 10 points each.
a) This is the sustainable density of a population in an environment over a long period of time.
answer: carrying capacity
b) This is a population of sub-populations connected by dispersal; an example would be a species of birds scattered between islands that interact.
answer: meta-population
c) This model of ecosystem function suggests that there are certain species that are integral to a healthy ecosystem - without them, the number of species drops dramatically.
answer: keystone hypothesis
15. Name these Irish leaders who were not executed for their part in the Easter Rising, for 15 points each.
a) This mathematician and commander of the Third Battalion had his death sentence commuted because of his U. S. citizenship; he went on to become prime minister and president. answer: $\quad$ Eamon de Valera [AY-mon dee vuh-LAIR-uh]
b) This "Big Fella" and aide to Joseph Plunkett was imprisoned in Wales. He later became Commander-in-Chief of the Irish Free State Army until his death in 1922.
answer: Michael Collins
16. 30-20-10. Name the philosophical work.
a) In its fourth book, the author refers to Caligula's reasoning to support his claim that in ancient times, "men had no kings save the gods, and no government save theocracy."
b) Its first book examines the structure of primitive societies and cites the family as the most ancient society. It also refutes the claims that some men are born for slavery.
c) This work by Rousseau begins with the line, "Man is born free, and is everywhere in chains."
answer: $\quad$ The Social Contract (accept Du Contrat Social, ou Principes du droit politique)
17. Answer the following about an idea from field theory, for the stated number of points.

For 10: Denoted $\operatorname{ch}(\mathrm{F})$ [ch of F ], this is the smallest positive integer a such that a times one equals zero in $F$. If no such a exists, $\operatorname{ch}(\mathrm{F})$ is defined to be zero.
answer: characteristic

For 5: what is the characteristic of the real numbers and the characteristic of the integers modulo p, a prime?
answer: $\quad$ zero and $p$
For 10: This is the subfield of F generated by the multiplicative identity of F . It is isomorphic to the rationals if $\operatorname{ch}(\mathrm{F})=0$ and isomorphic to Fp if $\mathrm{ch}(\mathrm{F})=\mathrm{p}$.
answer: prime subfield
18. Name these twentieth-century Italian writers, for 10 points each:
a) This author of The Nonexistent Knight and The Cloven Viscount is best known for his masterpiece of magical realism, If on a Winter's Night a Traveller.
answer: Italo Calvino
b) This one-time teacher at a women's teachers college won a Nobel Prize for such experimental plays as Tonight we Improvise! and Six Characters in Search of an Author.
answer: $\quad$ Luigi Pirandello
c) This 1997 Nobel laureate and one-time clown is known for plays like The Accidental Death of an Anarchist.
answer: $\quad$ Dario Fo
19. Name these Jewish holidays, for 10 points each:
a) This holiday, the Jewish New Year, begins the Ten Days of Penitence.
answer: Rosh Hashanah
b) The name of this holiday means "booths" and refers to the temporary dwellings in which Jews are commanded to dwell for seven days.
answer: $\quad \underline{\text { Sukkot }}$
c) This feast celebrates the defeat of Haman's plot to destroy the Jews of Persia.
answer: Purim
20. Identify the road on a $30-20-10$ basis.
a) It is called the Yankee Division Highway, the North-South Expressway, and the Governor John D. Lodge Turnpike along its current route.
b) If you were to drive its entirety, you would pass through 15 states and next to the Bronx Zoo, Philadelphia International Airport, and Cape Canaveral.
c) This Interstate traverses the entire east coast, starting in Maine and ending in Miami.
answer: $\quad$ Interstate $\underline{95}$ (prompt on 95)

