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FUCT 2002: The Fabulous Unnamed Chicago Tournament
Tossups by Edward Cohn, Matt Reece, Peter Onyisi, and Susan Ferrari

1. As a state legislator in the mid-1980s, he sponsored the country's first law placing pictures of missing children on paper bags and milk cartons. A former state controller and lieutenant governor, he served as chief of staff to Jerry Brown in the 1970s and lost a 1992 Senate primary to Dianne Feinstein, but went on to replace Pete Wilson as governor in 1999. For 10 points—name this California Democrat.

answer: Gray Davis (accept Joseph Graham Davis, Jr.)

2. One of them, Celaeno, warned Aeneas that he would reach his new home only when his men became hungry enough to eat their tables. Homer said that there were three others—Podarge, Ocypete, and Aello—and likened them to storm-winds. But they are best known for tormenting a Thracian king named Phineus until the Argonauts drove them away. For 10 points—name these half-woman, half-bird monsters of Greek myth.

answer: the harpies (or harpyiai)

3. He designed the first crossword puzzle in the Russian language while living in Berlin, where his father—a former member of the Provisional Government—was assassinated in 1922. His works include the story “A Cloud, A Lake, A Tower;” his memoir *Speak, Memory*; and *The Real Life of Sebastian Knight*, his first English-language novel. For 10 points—name this Russian-born author of *Pale Fire* and *Lolita*.

answer: Vladimir (Vladimirovich) Nabokov [nah-BOH-kuff]

4. The phosphate in a nucleotide is in this sort of linkage to the 5-prime carbon of the sugar. Sulfuric acid can catalyze the reaction of an alcohol and a carboxylic acid to form this sort of compound. Examples are methyl salicylate and ethyl butanoate, which smell like wintergreen and pineapple respectively. For 10 points, what are these compounds with structure RCOOR' [R-C-O-O-R-prime], known for their fragrance?

answer: esters

5. Arthur Barlowe and Philip Amadas sighted it in 1584, the first time it had been seen by a European, and its first governor was Ralph Lane. Virginia Dare, the first English child born in the New World, was born here in 1587, but her grandfather, Governor John White, found only the word “Croatoan” carved into a tree when he returned after a three-year absence in 1590. For 10 points—name this “Lost Colony” located off the coast of North Carolina.

answer: Roanoke

6. The original cast featured Marie Geistinger as Rosalinde, Ferdinand Lebrecht as Dr. Falke, and Jani Szika as Gabriel von Eisenstein. In the end, Rosalinde sings the praises of King Champagne, and, after a fancy ball, Falke admits to having engineered events to avenge a trick played on him by Eisenstein, who once left him dressed up as a winged mammal to walk home after an earlier costume dance. For 10 points—name this 1874 operetta by Johann Strauss.

answer: Die Fledermaus (or The Bat)

7. Warning: two answers required. They live at 62 West Wallaby Street, in a house with distinctive wallpaper and lots of Wensleydale cheese. Their enemies include a devious penguin named Feathers McGraw and a cyber-dog named Preston, and they've appeared in three films: "A Grand Day Out," "The Wrong Trousers," and "A Close Shave." For 10 points—name these claymation characters, an inventor and his dog, produced by Nick Park.

answer: Wallace and Gromit

8. After heat- or methanol-fixing the specimen, flood the slide with crystal violet. Wash, then flood the slide with iodine solution. Decolorize using ethanol, then counterstain with safranin. Bacteria with cell walls composed mostly of peptidoglycan, such as streptococci, will stain blue-violet, while other bacteria, like *E. coli*, will stain red. For 10 points, name this stain which is useful in clinical microbiology.

answer: Gram stain

9. It began in the Thistle Mountain region of Guangxi province, drawing converts from mountain tribesmen and members of the Hakka ethnic minority. Shi Dakai and Yang Xiuqing were among its leaders; it was spearheaded by the Society of God Worshippers, whose leader—Hong Xiuquan—claimed to be Jesus's little brother. For 10 points—name this rebellion which erupted in 1850, threatening China's Qing dynasty.

answer: the Taiping uprising or rebellion

10. It was first published in 1924, when Raymond Weaver transcribed the manuscript for the Constable edition of its author's works. A grizzled man, Radcliffe, and the Dansker all serve aboard the *Bellipotent*, whose master-at-arms is Claggart and whose captain is Edward Vere. For 10 points—name this novella in which the title character is hanged for killing Claggart, a work by Herman Melville.

answer: Billy Budd, Foretopman

11. For 10 years, he spent 2 hours a day squeezing apple-sized rocks; 2 hours skipping, dodging, and moving quickly; 2 hours sprinting; 4 hours sleeping; and the rest learning to fence. He thus became the greatest swordsman since Bastia the Corsican Wizard, but still lost a duel on the Cliffs of Insanity to a mysterious man in black. For 10 points—name this Spaniard determined to avenge his father, a character in William Goldman's *The Princess Bride*.

answer: Inigo Montoya

12. A series of canals connects it to its port, Kabara, on the Niger River. Originally a seasonal settlement, it supposedly took its name—meaning "mother with a large navel"—from the old Tuareg woman who watched it while her people were traveling the Sahara, and it became a center of Muslim learning in West Africa after its 1468 conquest by Songhai. For 10 points—name this city in present-day Mali.

answer: Timbuktu (or Tombocou)

13. Sometimes said to be a “troll-wife,” she is often pictured as a hag and lives in a cave at the bottom of a mere. She is eventually beheaded using a sword forged by giants, after killing a Dane, recovering her son’s severed arm from Heorot, and surviving an attack by a Geat [gay-AHT] lord wielding the sword Hrunting. For 10 points—name this monster that tries to avenge her son’s death, but is instead killed by Beowulf.

answer: Grendel’s mother (do not accept or prompt on “Grendel”)

14. The “second” type is a functor from the Hilbert category to itself, forming a Fock space from the single-particle Hilbert space. The “first,” however, is less well-understood; it changes Poisson brackets to commutators, but involves making arbitrary choices. The Bohr-Sommerfeld approach is based on the idea that the wave function vanishes to first approximation in a classically forbidden region. For 10 points, what is this term that also can mean that an observable is seen in discrete values?

answer: quantization

15. The Reverend Ralph Abernathy was among those being sued in this case, which began with the publication of a newspaper ad with the title “Heed their Rising Voices!” The Montgomery police commissioner had sued, citing several factual errors, but William Brennan’s majority decision found that, in cases involving public officials, a libelous statement must show “actual malice.” For 10 points—name this landmark 1964 Supreme Court case.

answer: New York Times v. Sullivan

16. Contemporary philosophers like Richard Rorty are sometimes said to be a part of this school. Its name was coined in an 1878 *Popular Science Monthly* article called “How to Make Our Ideas Clear;” John Dewey built on Charles Sanders Peirce’s ideas when he advocated “learning by doing,” and William James hailed this philosophy as “a new name for some old ways of thinking.” For 10 points—name this philosophical doctrine holding that practical results are the best test of truth.

answer: Pragmatism

17. The originator of this concept, Leon Festinger, ran an experiment whose subjects performed a dull task and were paid to convince someone else it was fun. The most enthusiastic people were those paid the least—demonstrating a disconnect between people’s attitudes and behavior. For 10 points—name this distressing mental state in which people find themselves doing things that don’t fit with what they know, or having opinions that don’t fit with their other opinions.

answer: cognitive dissonance

18. The French were led by P. C. Villeneuve, who was taken prisoner and committed suicide just after his release. Cuthbert Collingwood led the British left column from the *Royal Sovereign*, and a sniper from the *Redoubtable* scored the one French accomplishment of the day by shooting

Horatio Nelson. For 10 points—name this British naval victory of October 1805, the namesake of a London square.

answer: Trafalgar

19. They are composed of Population II objects and are poor in metals. The ones visible to the naked eye include 47 Tucanae, M13 in Hercules, and Omega Centauri. Plotting their location in three-dimensional space revealed that the sun was not at the center of the galaxy. For 10 points, identify this type of stellar cluster, which can be so dense that collisions of stars are frequent.

answer: globular clusters

20. He lives in “a time-eaten and grotesque mansion, long deserted through superstitions” in Faubourg St. Germain. He can often be found smoking a meerschaum pipe in his book-closet, when he isn’t chasing after an orangutan or helping a woman being blackmailed by a member of the cabinet. For 10 points—name this French detective, the hero of “The Purloined Letter” and two other stories by Edgar Allan Poe.

answer: C. Auguste Dupin

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Boni by Edward Cohn, Peter Onysi, Jeremiah Thompson, and Matt Reece

1. 30-20-10. Name the author.

- a) A great-nephew of the German historian Leopold von Ranke, this poet and novelist published *Lars Porsena, or The Future of Swearing and Improper Language*, in 1927.
- b) He served alongside Siegfried Sassoon in World War I, an experience he described in the memoir *Goodbye to All That*. He also wrote historical novels like *King Jesus*.
- c) He is best known for the novel *I, Claudius* and its sequel, *Claudius the God*.

answer: Robert (Ranke) Graves

2. Answer these questions about chemical bonds, for 10 points each.

- a) This is the type of bond which becomes delocalized in benzene. They are formed by sideways overlap of two p orbitals.

answer: pi bonds

- b) Bonds cylindrically symmetric about the internuclear axis are sigma bonds. How many sigma bonds does a benzene molecule have?

answer: twelve (12)

- c) These bonds have the smallest overlap between orbitals, which face each other and interact over a large distance. These are possible for d orbitals.

answer: delta bonds

3. Name the rivers that flow through these Italian cities, for 10 points each.

- a) Rome.

answer: the Tiber (or Tevere)

- b) Florence

answer: Arno

- c) Turin

answer: Po

4. Identify the following related to free software, for 10 points each.

a) This operating system kernel initially developed by a Finnish university student has become a poster child for the free software movement.

answer: Linux [Lee-nuks or Lih-nuks, who cares?]

b) Richard Stallman always prepends these three letters when describing Linux systems. It is the name of a family of programs he and others wrote to clone UNIX functionality.

answer: GNU (Gnu's Not Unix)

c) Critics of the GNU Public License often point to this alternative, initially used by Berkeley when it released its version of UNIX, as being more compatible with the realities of the software world.

answer: BSD license (Berkeley Software Distribution)

5. Name these British prime ministers, given quotations, for 10 points each

a) "For the second time in our history, a British prime minister has returned from Germany bringing peace with honor. I believe it is peace for our time."

answer: Neville Chamberlain

b) "Yes, I am a Jew, and when the ancestors of the right honorable gentleman were brutal savages in an unknown island, mine were priests in the temple of Solomon."

answer: Benjamin Disraeli

c) "Oh, God! It's all over." (upon hearing about the defeat at Yorktown)

answer: Frederick North

6. Answer these questions about optics, for 10 points each.

a) This sort of laser beam has an irradiance profile proportional to e^{-2r^2/w^2} over w^2 , and is named for that function. Asymptotically, it forms a cone. At the waist, the wavefront is flat.

answer: Gaussian beam

b) Gaussian beam transformations by lenses can be written in terms of complex numbers and these transformations of the form $(az + b) / (cz + d)$.

answer: Mobius transformations or Fractional linear transformations

c) These are two-by-two matrices that facilitate computations for light passing through polarizers or wave-plates. For a linear polarizer at 45 degrees, all entries are one-half.

answer: Jones matrices

7. Name these things related to a concept in economics, for 10 points each.

a) This is the term for an unpriced marginal cost or marginal benefit, which occurs when one entity's activities affect the welfare of another in a way that is outside the market. Pollution is an example.

answer: externality

b) This theorem holds that if transaction costs are negligible, an externality problem will be efficiently resolved if either party is assigned property rights.

answer: the Coase theorem

c) This is the term for a tax levied on each unit of a polluter's output in an amount equal to the marginal damage that it inflicts at the efficient level of pollution.

answer: Pigouvian tax

8. Given the year and the party, name the third-party presidential candidate, for 10 points each.

a) the Socialist party; every election from 1928 to 1948

answer: Norman Thomas

b) the Free Soil party; 1848

answer: Martin Van Buren

c) the Progressives; 1924

answer: Robert LaFollette

9. Name these female American writers of the seventeenth and eighteenth centuries, for 10 points each.

a) John Woodbridge, her brother-in-law, brought one of her manuscripts back to England without her knowledge and had it published as *The Tenth Muse Lately Sprung up in America*.

answer: Anne Bradstreet

b) This former slave's *Poems on Various Subjects, Religious and Moral* touched on everything from the death of George Whitefield to the appointment of George Washington as a general.

answer: Phillis Wheatley

c) This sister of a patriot wrote anti-British plays like *The Blockheads*, *The Motley Assembly*, and *The Group*.

answer: Mercy Otis Warren

10. Her name approximately translates to "woman of the clouds." For 10 points each:

a) Name Indonesia's president, the daughter of the country's first leader.

answer: Megawati Sukarnoputri (or Dyah Permata Megawati Setiawati Sukarnoputri)

b) Last summer, Megawati replaced this blind Muslim cleric with nasty habit of falling asleep in cabinet meetings, who was impeached on charges of corruption and incompetence.

answer: Abdurrahman Wahid (accept either)

c) Megawati was for many years a leader in the opposition to what Indonesian president who resigned in 1998?

answer: Suharto

11. Given the name of an African country, tell what European state it was a colony of in 1900, for 5 points each.

a) Niger

answer: France

b) Burundi

answer: Germany

c) Angola

answer: Portugal

d) Ghana

answer: the United Kingdom (accept equivalents)

e) Cameroon

answer: Germany

12. It was founded by a Persian named Mirza Hussein Ali Nuri, and preaches tolerance, the spiritual unity of humankind, and universal peace. For 10 points each:

a) What is this religion, with roughly 5 million adherents worldwide?

answer: Baha'i or Bahatism

b) An unusually large percentage of adherents to Baha'i speak what language, which was invented by Ludwig Zamenhof?

answer: Esperanto

c) Mirza Hussein Ali Nuri, or the Baha'ullah, was the successor to this man, a prophet whose martyrdom is celebrated by Baha'i and who founded an earlier sect.

answer: the Bab (or Mirza Ali Muhammad)

13. Answer the following on the properties of complex numbers, for 10 points.

a) This theorem says that the n^{th} power of r times cosine theta plus i sin theta is r to the n times cosine n theta plus i sin n theta.

answer: De Moivre's Theorem

b) The condition that a complex function f of z equal to u of (x, y) plus i times v of (x, y) be C -differentiable separates into two differential equations involving u and v . What are these called?

answer: Cauchy-Riemann equations

c) This theorem states that around a closed curve with w in the interior, the integral of f of z over $(z$ minus $w)$ is $2\pi i$ times f of w .

answer: the Cauchy integral theorem (or Cauchy integral formula, or equivalent)

14. Answer the following about a German painter and engraver, for 10 points each.

a) A Nürnberg native who traveled to Italy in 1494, this leader of the German Renaissance is perhaps best known for his self-portraits, apocalyptic scenes, and woodcuts of animals.

answer: Albrecht Dürer

b) This 1514 Dürer engraving shows Genius surrounded by a disarray of scientific instruments, looking frustrated and helpless.

answer: Melencolia I

c) This 1513 engraving, on the other hand, is a celebration of creativity, showing a happy translator of the Vulgate Bible at work.

answer: St. Jerome in his Study

15. For 10 points each, name these Scandinavian writers, none of whom is Henrik Ibsen.

a): This Swede wrote the plays *Miss Julie*, about a count's kinky daughter who hates men and makes her fiance jump over a horsewhip, and *The Spook Sonata*.

answer: (Johan) August Strindberg

b) This Norwegian, who operated a streetcar in Chicago and worked as farmhand in North Dakota, is best known for the novel *Hunger*.

answer: Knut Hamsun (or Knut Pedersen)

c) This rival of Ibsen wrote plays like *A Happy Boy* and *Sigurd the Bastard*; no one reads his work any more, but he still won the 1903 Nobel Prize.

answer: Björnstjerne Björnson

16. Name these men who hit these famous home runs, for 10 points each.

a) His "shot heard round the world" propelled the NY Giants over the Brooklyn Dodgers and into the 1951 World Series.

answer: Bobby Thompson

b) This second baseman's homer in game 7 of the 1960 World Series led Pittsburgh to a victory over the NY Yankees.

answer: Bill Mazerowski

c) This Cub hit a home run that defeated the St. Louis Cardinals and locked up the NL East, leading the Cubs into post-season play for the first time since 1945.

answer: Ryne Sandburg

17. He argued that to be is to be perceived—*esse est percipi*—and wrote such works as the *Essay toward a New Theory of Vision* and *Alciphron, or the Minute Philosopher*. For 10 points each:

a) Name this idealist philosopher, an Irish-born bishop.

answer: George Berkeley

b) Berkeley [BARK-ley] developed his immaterialist philosophy in the greatest depth in this 1710 work, composed of an introduction and 33 short sections.

answer: Treatise concerning the Principles of Human Knowledge

c) In 1713, Berkeley published this set of three dialogues “in opposition to sceptics and atheists.”

answer: Three Dialogues between Hylas and Philonous in opposition to sceptics and atheists

18. How well do you know your German chancellors? For 10 points each:

a) Name West Germany’s first socialist chancellor, a former mayor of West Berlin who pursued a policy of *Ostpolitik* until he was forced out of office in a spy scandal?

answer: Willy Brandt (or Herbert Ernst Frahm)

b) This Christian Democrat became the first chancellor of the Federal Republic in 1949.

answer: Konrad Adenauer

c) This man, Adenauer’s successor, presided over the West German “economic miracle” of the 1960s.

answer: Ludwig Erhard

19. Answer these questions about a topic in biology, for 10 points per part.

a) The Swiss biochemist Johann Friedrich Miescher found in 1870 that cell nuclei contained this type of non-protein material, noting it was made of phosphorus as well as carbon, nitrogen, hydrogen, and oxygen.

answer: nucleic acid

b) By transforming rough-surfaced to smooth-surfaced bacteria, he was able to show that DNA rather than protein is the genetic material.

answer: Oswald Avery

c) Suppose a codon on the DNA strand used in transcription reads TAC. For five points each, what will the mRNA codon read and what is the corresponding amino acid?

answer: AUG and methionine

20. When he worked at the British Foreign Office, his boss was the future double agent Kim Philby. He went on to write spy novels and thrillers like *The Third Man*, *Our Man in Havana*, and *The Quiet American*. For 10 points each:

a) Who was this British novelist?

answer: (Henry) Graham Greene

b) What 1940 Graham Greene novel stars a drunken Mexican priest who must confront political persecution?

answer: The Power and the Glory

c) In what 1960 Greene novel does the title character, a famous architect, travel to a leper colony in the Congo?

answer: A Burnt-Out Case