

TOSSUPS – ROUND TEN**DENNIS HASKINS OPEN MARCH 2005 (UTC/CWRU)**

Besides the usual suspects, questions by Stanford's Eric Smith et al. and Chuck Pearson, Shorter College

1. Their Hausdorff dimension is a non-integer. Iterated function systems give rise to the Koch snowflake, Menger sponge, Cantor set, Sierpinski gasket and carpet. Escape time ones give include Julia sets. They are generally self-similar to infinitesimally small scale, and until 1975 were generally known as "monster curves". FTP, what are these geometrical objects, named after the Latin for "broken" by Benoit Mandelbrot?

Answer: **fractal**

2. Its backstory takes up 203 years, and many children, including the question writer, were taught with out-of-date textbooks that excluded it. It was first proposed by James Madison, and automatically became law when Michigan became the 38th state to ratify it, thus fulfilling the three-fourths requirement. For ten points, name this amendment which bans Congress from granting its members pay raises in the middle of their terms and became part of the US constitution in 1992.

Answer: **27th amendment**

3. Since it lies at a single characteristic point for a pure substance, the temperature of the cold sink of a heat engine can be determined by measuring the efficiency of the engine when the hot source is set to the temperature at which this occurs for water--a fact which Kelvin exploited in defining his temperature scale. Located on a phase diagram of pure water at 611 Pascals and, by definition, 273.16 degrees Kelvin, for ten points, this is what point at which the solid, liquid, and vapor phases of a substance coexist in equilibrium?

Answer: **triple point**

4. Although he is a sculptor, printmaker, poet, and playwright, he is best known as a novelist. Born in Danzig, he was a member of the Hitler Youth, was drafted at 16 and wounded in battle, and became a prisoner of war. *Cat and Mouse* and *Dog Years* form a trilogy with his first novel *The Tin Drum*, which made him internationally famous. FTP, name this 1999 winner of the Nobel Prize and the author of *Crabwalk*.

Answer: **Gunter Grass**

5. He was once rejected at an *American Idol* audition for being a month over the cutoff age, but thanks to a rule change, raising the age limit to 28, he was allowed to compete on the fourth season. He auditioned in Las Vegas and was selected to be one of the twelve finalists thanks to his performances of songs such as *How Can You Mend A Broken Heart*, *I Love Music*, and *Do I Do*. For ten points -- name this Bronx crooner who was replaced by Nikko Smith after dropping out on March 13, 2005 due to personal issues.

Answer: **Mario and/or Vazquez**

6. She was considered the goddess of dates, meat, and wool, and the storehouse doors became one of her emblems. She was also commonly considered the goddess of the storm as the daughter of the sky god. In one prominent myth she travels to the underworld either to overthrow her sister Ereshkigal or to reclaim her dead consort Tammuz. Worshipped through prostitution in her temple, for ten points, name this Akkadian goddess of love.

Answer: **Ishtar**; accept **Inanna** or **Ashtart** or **Astarte** before "Akkadian"

7. Near the conclusion of this novel, the paranoid Marty held up the dispatch being delivered by Gomez and Andres, but General Karkov intervenes and the message gets to General Golz via a phone call. Unfortunately, he had no way of stopping the attack, thus forcing the gang of Eladio, Primitivo, Fernando, Agustin, Rafael, and Pablo to complete the mission specified to the Ingles [*ing-GLAYCE*]. Pablo's lover Pilar gives up Maria to the dynamiter and ex-Spanish professor Robert Jordan, who is left behind after the mission when he injures his leg. FTP name this novel about the Spanish Civil War by Ernest Hemingway.

Answer: **For Whom the Bell Tolls**

8. Michel Aflaq was this movement's early ideological leader. Founded on April 7, 1947, this political movement's name is taken from the Arabic for "rebirth." The party motto - which translates to "Unity, Freedom, Socialism" in English - is somewhat misleading to American ears, because the freedom that is sought is from Western influence, and the unity is unity among all Arab peoples. Early ideology encouraged the peaceful turnover of power, but two nations achieved the greatest success for the party through military coups in 1963. This party is still in rule in Syria; its rule in Iraq lasted forty years. FTP, what was the name of Saddam Hussein's political party, since outlawed by American occupying forces?

Answer: **Ba'ath** Party

9. In March 2002, a construction crane on floor 56 of this building was knocked off by an earthquake and killed five people. This structure contains an 800-ton tuned mass damper on the 88th floor, a high-speed fiber optic network, and the world's fastest elevators. Opened on December 31, 2004, this is, for ten points, what building, usually considered the tallest building in the world, which has five stories below ground and its namesake number above ground.

Answer: **Taipei 101**; or **Taipei Financial Center**; or **Taipei International Financial Building**

10. Ilya Ilyich Mechnikov received a Nobel Prize in Physiology/Medicine for his work on this process in higher animals. In animals, it can remove foreign bodies and fight infection, while in protists, it provides nourishment. In amoebae, it takes place by surrounding the target object with pseudopods, and results in the formation of a food vacuole. For ten points -- name this form of endocytosis whose name literally means "cell eating."

Answer: **phagocytosis**

11. Born on an island off the coast of Asia Minor, this poet eventually married and had a daughter. She is famous, however, for her lyric poetry inspired by her youthful love affairs. Scholars at the Alexandria library arranged her poems in nine books, but only two complete poems remain today. FTP name this tenth muse who celebrated the love of young women for each other, a resident of Lesbos.

Answer: **Sappho**

12. One of his early roles was as a crew member on the patrol boat in *Apocalypse Now*. He later worked for Francis Ford Coppola again in *The Cotton Club*. Then he played Cowboy Curtis on *Pee Wee's Playhouse* before his breakthrough performance in John Singleton's *Boyz n the Hood*. FTP, name this actor who played Morpheus in the *Matrix* trilogy.

Answer: Laurence **Fishburne** [accept it if you call him Larry, even though *he* wouldn't.]

13. He went to Sweden to instruct the Queen but ended up dying of a cold because she would only see him at five in the morning. Dividing all ways to knowledge into the two faculties of intuition and deduction, he proved the existence of God from the existence of the self, and the self from the act of doubting. Most noted for his division of substance into mind and body, he is, FTP, which founder of modern philosophy who declared that "I think, therefore I am?"

Answer: Rene **Descartes**

14. After being postulated in the 1920's, it was finally achieved in 1995 by Eric Cornell and Carl Wieman at the University of Colorado. It was produced by subjecting rubidium atoms to laser cooling. It doesn't as of yet have any practical uses as it is too fragile, but many are optimistic that its ability to slow the speed of light and allowing light to enter but not exit, like a black hole. FTP, name this superliquid form of matter, named for two early 20th century scientists.

Answer: **Bose-Einstein Condensate**

15. This term may come from the name of a Bodhisattva of whom an important local chieftain claimed to be an avatar. In 1635 that leader's son Abahai adopted the term for his people. Starting from a base north of the Liaodong Peninsula, their rise to power began with Nurhachi, who introduced the Eight Banner system and renamed the capital "Mukden." Proclaiming a "Great Pure" dynasty and capturing Beijing in 1644, for ten points, what people, earlier called "Jurchens," ousted the Ming from power to found China's Qing dynasty?

Answer: the **Manchus**; accept **Manchurians** or **manju** or **man**; do not accept "Qing" or "Ch'ing"

16. Its author wrote an epilogue to dispel the belief that its two main characters eventually marry. At its end, the father of one the main characters says he has been ruined by an endowment given to him to lecture on morality. Its action starts when the other main character wagers with a Colonel that he can pass off a "draggled-tailed guttersnipe" as a duchess. For ten points, name this play by George Bernard Shaw about Henry Higgins and Eliza Doolittle, which was adapted for the musical *My Fair Lady*.

Answer: **Pygmalion**; do not accept "My Fair Lady"

17. In the 1970s about a million disfranchised tea workers staged a rebellion in the hill country south of Kandy, most of them eventually gaining autonomy as a Tamil-speaking minority state. Its 900,000 Christians, most of whom live along the west coast north of Colombo, were devastated by a recent tsunami. FTP name this island nation shaped like a teardrop.

Answer: **Sri Lanka**

18. According to Ridolfi, this man had inscribed on his studio wall the motto "The drawing of Michelangelo and the color of Titian." A student of Titian, his early masterpiece is the *Miracle of the Slave* (Accademia, Venice, 1548). You can see his love of foreshortening in this painting as well as others such as *The Last Supper* (S. Giorgio Maggiore) and *Susanna and the Elders*, and his series of the life of the virgin and the life of Christ in the Scuola di San Rocco. FTP name this mannerist artist, who was born Jacopo Robusti, but is known by a name which alludes to his father's profession as a dyer.

Answer: **Tintoretto** (accept Jacopo Robusti early)

19. One of the issues addressed in this treaty was suppression of the slave trade between the United States and England. The treaty specifically discussed issues regarding the import and export of slaves and specific paths of trade. FTP name this 1842 treaty that also settled a Canadian-American border dispute over the border of Maine.

Answer: **Webster-Ashburton Treaty**

20. The G-protein coupled receptors for this class of drugs can be divided into the delta, kappa, and mu varieties, and are found primarily in the locus coeruleus and the periaqueductal gray. In 1975, neuroscientists found two similar endogenous peptides named enkephalins that mimic its action to relieve pain. Its major active ingredient is extracted from poppy flower seedpods and its artificial derivative is a popular, addictive substance of abuse called heroin. FTP name this class of analgesic drugs whose major active substance is morphine.

Answer: **opiates**; or **opium**; prompt on heroin and morphine before they are mentioned

21. Berlioz wrote a two-part opera about them that depicted their destruction. Their existence was confirmed by an excavation and their homes were destroyed by Greeks. They lived in modern day Turkey in a location hinted at by Homer. FTP name this group of people led by Priam whose native city was destroyed by a siege with a wooden horse.

Answer: **Trojans**

22. This psychologist originally planned to study religion before he changed his mind and became a professor at Johns Hopkins. He is famous for boasting of the ability to shape the futures of infants and for his founding of the behaviorist school of psychology. For ten points name this early psychologist, perhaps best known for conducting the "Little Albert" fear conditioning experiments with a white rat.

Answer: **John Watson**

23. There are various other ways to achieve the positive effects associated with this action, but none are known to be as discreet and publicly acceptable. It titles a short story by Kate Chopin, a silent film starring Greta Garbo, and a story by Anton Chekhov. Although it can be accomplished by a person alone with a mirror, it is best achieved in pairs. Although women are known to enjoy it more than men, Bill Clinton is said to prefer it over sex. FTP name this physical phenomenon accomplished by pressing lips together.

Answer: **kissing**

BONI – ROUND TEN

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- b) Laughing Cavalier, Officers of the Militia Company of St. George

Answer: Frans Hals

- Answer: Jan van **Eyck** [pronounced *eck* but accept *ike* or other reasonable attempts]

lics of the Cloth Guild, The Night Watch

Answer: **Rembrandt** van Rijn

- a) James S. Sherman

Answer: William Howard Taft

- Answer: **Franklin Roosevelt** [accept **FDR**]

er Mondale

Your eye is tuned to wavelengths between 400 and 700 nanometers, the optical spectrum. Given a description, these other classes of electromagnetic radiation FTPE:

- Answer: **X-ray**

ions in this energy range can break chemical bonds, including those in DNA. Reactions in the stratosphere with produce ozone.

Answer: **ultraviolet or UV**

- Answer: **microwave**

- a) "O, beware, my lord, of jealousy! / It is the green-eyed monster which doth mock / The meat it feeds on."

Answer: *Othello*

- Answer: *Henry V*

rd, what fools these morta

Given the mountain, identify the country of its location for ten points each.

- Answer: **Tanzania**

ciusko

- c) Aconcagua

Answer: **Argentina**

- (10) Two detectives played by Brad Pitt and Morgan Freeman capture John Doe, a psychopath who kills people for committing the deadly sins.

Answer: *Seven*

- Answer: *Seven Samurai*; or *Shichinin no samurai*

knight plays chess against death while people around them die of the plague in this Ingmar Bergman film.

Answer: *The Seventh Seal*; or *Det sjunde inseglet* (but I doubt anyone will say this)

7. Answer the following questions about Chairman Mao:

(10) Mao and his forces trekked north through China on this year-long journey to evade Nationalist forces.

Answer: the **Long March**

(10) This plan to jump-start China as an economic power ordered collectivization of agriculture, and lots of small-scale industrial projects like backyard furnaces for smelting steel.

Answer: the **Great Leap Forward**

(10) After Mao's death, this group of three Shanghai party bosses and his wife tried to seize power and have Deng Xiaoping purged, but they failed and were given this insulting nickname.

Answer: the **Gang of Four**

8. FTSNOP name these works by James Thurber:

a) (5 pts.) Mundane events in real life trigger the vivid adventure fantasies of a henpecked husband.

Answer: "The **Secret Life of Walter Mitty**"

b) (10 pts.) Although considerable literary license is taken, this 1933 collection of stories dealing with Thurber's youth in Columbus, Ohio, is the closest thing he had to an autobiography.

Answer: **My Life and Hard Times**

c) (15 pts.) In this 1940 gem, another henpecked husband pretends to have seen a nonexistent animal in order to provoke his wife into calling the guys in the white coats. He then feigns ignorance, she gets hysterical, and she gets carted away instead. This is one of only three times in all of Thurber's work where a man triumphs over a woman.

Answer: "The **Unicorn in the Garden**"

9. Answer the following about electron orbitals, FTPE.

(10) No orbital may be occupied by more than two electrons and the electrons must differ in the orientation of their intrinsic angular momentum. This is a consequence of what principle?

Answer: **Pauli Exclusion** Principle

(10) By this rule, degenerate orbitals are first occupied by one electron each, all of these having the same spin.

Answer: **Hund's Rule**

(10) The process of adding electrons one by one to the orbitals, starting with those of lowest energy, is known as this principle, German for build up.

Answer: **Aufbau** Principle

10. Answer the following about Ajax for ten points each.

1. Two warriors named Ajax fought for Greece during the Trojan war. They are often called the greater and the lesser but their fathers are also used to distinguish them. Name either of their fathers.

Answer: **Oileus**; or **Telamon**

2. Ajax the lesser later raped this woman who had been given the gift of prophesy by Apollo.

Answer: **Cassandra**

3. Ajax the greater quarreled with this other Greek over the armor of Achilles, going mad after losing the armor.

Answer: **Odysseus**; do not accept "Ulysses"

11. Name some of these things having to do with the end of the Civil War for ten points each.

1. This bill passed by the Radical Republicans called for the appointment of a provisional governor in the Southern states and required a majority of males to pledge allegiance to the Union. It was pocket vetoed by Lincoln.

Answer: **Wade-Davis Bill**

2. Originally sponsored by Charles Sumner, this government agency oversaw land distribution to former slaves and established an education system for their children among other things.

Answer: **Freedman's Bureau**

3. This general who marched with W. T. Sherman and fought at Gettysburg was put in charge of the Freedman's Bureau. A historically black college in Washington, D.C., was named for him.

Answer: Oliver O. **Howard**

12. Pop music lyrics quiz! Five points for the song, five points for the artist:

a) "My shadow's the only one that walks beside me/My shallow heart's the only thing that's beating."

Answers: **"Boulevard of Broken Dreams" / Green Day**

b) "Finally, some one let me out of my cage/Now time for me is nothin' 'cause I'm countin' no age."

Answers: **"Clint Eastwood" / Gorillaz**

c) "Wish I could read what goes through your mind/Wish you could touch me with the colors of your life."

Answers: **"Invisible" / Clay Aiken**

13. It may have come and gone rather quietly, but your genial quizmaster really enjoyed *Fantasia 2000*. Given a composition featured or excerpted in that film, name the composer FTPE or 30 for all 5 correct:

a) Pomp and Circumstance

Answer: **Edward Elgar**

b) Rhapsody in Blue

Answer: **George Gershwin**

c) Carnival of the Animals

Answer: **Camille Saint-Saens**

14. For ten points each, which figure from American poetry:

1. has muscles "as strong as iron bands" in a Longfellow work?

Answer: **the village blacksmith**

2. "enters into Heaven" in a poem by Vachel Lindsay.

Answer: **General William Booth**

3. "lived in a pretty how town" in a poem by e. e. cummings?

Answer: **anyone**

15. You may know your own genus and species, *Homo sapiens*, but FTPE, give:

a) Phylum

Answer: **Chordata or Chordates** [prompt on "Vertebrata" or "vertebrates"]

b) Order

Answer: **Primates**

c) Family

Answer: **Hominidae**

16. Time for a general literature question. For ten points each, name the writer of.

1. *The Inspector General*, 1836.

Answer: **Nikolay Vasilyevich Gogol**

2. *The General in His Labyrinth*, 1989.

Answer: **Gabriel Garcia Marquez**; prompt on "Marquez"

3. *Canto General* (heh-neh-RAAL), 1943.

Answer: **Pablo Neruda** or **Neftalí Ricardo Reyes** Basoalto

17. FTPE, given a list of numbers, name the next number in the sequence. You have 10 seconds per part.

1, 1, 2, 3, 5, 8, 13.

Answer: **21**

2, 3, 5, 7, 11, 13, 17, 19.

Answer: **23**

1, 3, 6, 10, 15, 21, 28.

Answer: **36**

18. In 1765, he was made governor of Bengal. He consolidated the power of the East India Company, and was later criticized for the wealth he amassed. For ten points each.

1. Name this Britisher.

Answer: Robert **Clive**

2. In 1756, Clive was sent on an expedition in response to an atrocity in which about sixty men were locked in a stifling hot room, killing all but twenty-one of them. What four-word name is commonly given to that room?

Answer: the **Black Hole of Calcutta**

3. In response to the Black Hole of Calcutta, Clive defeated Siraj-ud-daula at this 1757 battle. He was given a title in the Irish peerage for his victory.

Answer: the Battle of **Plassey**; Clive was made "First Baron Clive of Plassey" so accept it if they said "Plassey" for part 1

19. Name these bogus theories of physics for ten points each.

1. The predecessor to the modern concept of momentum, the property was thought to be imparted to an object placed in motion. It dissipated as the object moved, and when the object ran out of this, it stopped.

Answer: **impetus**

2. Discussed by Becher and Stahl, it was thought to be the substance that allowed things to burn. Its existence was shown to be unnecessary by Lavoisier, though Priestley believed in it his entire life.

Answer: **phlogiston**

3. Invented by Gene Ray, this theory holds that every day is actually four simultaneous days. Humans only experience one of these days because they have been "educated stupid."

Answer: **time cube** (Google this if you've never heard of it!)

20. Given the description, give the name of the god or goddess found in Hinduism for ten points each.

a) The elephant head God. He is the lord of all existing beings.

Answer: **Ganesh (a)**

b) The monkey deity known for his power and selfless service.

Answer: **Hanuman**

c) The goddess of knowledge, music, and the creative arts.

Answer: **Saraswati (so-ra-swa-ti or so-ro-so-thi)**

21. Given a planet or moon, give the primary component of its atmosphere for the stated number of points.

1. (5 points) Venus.

Answer: **carbon dioxide** or **CO₂**

2. (10 points) Titan.

Answer: **nitrogen** or **N₂**

3. (15 points) Uranus.

Answer: **hydrogen** or **H₂**

22. For the fungus among us: Answer the following about edible, nonhallucinogenic mushrooms FTPE.

a) These mushrooms have spongy, honeycomb-like, pointed caps and hollow stems. Tan, yellow, or black, they are used in many kinds of cooking.

Answer: **Morel**

b) Color ranges from tan to dark brown with tan gills and umbrella shaped caps. Texture is soft and spongy. They are used in many gourmet dishes.

Answer: **Shiitake**

c) Reaching up to six inches in diameter, usually white or tan with darker gills, they are used as meat substitutes in vegetarian dishes, among other uses.

Answer: **Portabella** (Portobello)