

Tossups:

1. James Fennimore Cooper's novel *The Spy* was based partly on conversations with this man about his service on a committee on conspiracies during the Revolutionary War. His role as Secretary of Foreign Affairs shaped his negative views on the Articles of Confederation, resulting in his "Address to the People of the State of New York, on the Subject of the Federal Constitution" and his contributions to *The Federalist Papers*. For ten points, who is this man, best known for his role as the first Chief Justice of the Supreme Court?

ANS: John Jay

2. This mathematical formula was first proven in 1714 by Roger Cotes, though it was not published in its current form until 1748, when its namesake Swiss mathematician proved it using infinite series. Neither man recognized its geometric implications, which remained undiscovered until the publication of Caspar Wessel's paper on complex planes. For 10 points-name this formula important to analysis and quantum mechanics which allows one to rewrite trigonometric functions in terms of e .

ANS: Euler's Formula

3. While attending Far Rockaway High School, this physicist won the NYU Math Championship. Physics luminaries in attendance at his first seminar at Princeton included Albert Einstein and Wolfgang Pauli. Although a pioneer in quantum electrodynamics and the namesake of a type of particle theory diagram, he may be better known to the public for his time on the Rogers Commission uncovering the cause of the Challenger disaster. For 10 points, name this 1965 Nobel prizewinner in physics, a curious character who surely must have been joking.

ANS: Richard Feynman

4. Members of this animal phylum fall under the classes of Hydrozoa, Anthozoa, Scyphozoa, or Cubozoa. They lack an anus, circulatory system, or gastrovascular cavity. Instead of this last feature, their mouth leads to a system of chambers called a coelenteron, which is the source of an alternate name for them. Almost all of them dwell in salt water, and they are more complex than sponges among Metazoa. For ten points, name this phylum whose members always have stinging cells and are either polyps or medusas, examples of which include coral, hydras, jellyfish, Portuguese men-of-war, and sea anemone.

ANS: Cnidaria or Cnidarians (accept Coelenterates or Coelenterata before "coelenteron")

5. When Ivan Turgenev was on his deathbed in 1883 he begged Leo Tolstoy to return to literature to which Tolstoy responded with this novella that was acclaimed by Vladimir Nabokov and Mahatma Gandhi as the greatest in all Russian literature. The titular protagonist of the piece falls one day while hanging curtains and begins to experience a mysterious pain in his abdomen. As the pain grows and he becomes bedridden, the only comfort in his life is his peasant servant Gerasim. For 10 points- name this religious themed work in which 3 days of screaming precede the title event.

ANS: The Death of Ivan Ilvich

6. The idea began from the 1980 presidential campaign of Ronald Reagan, but did not become finalized until 1992 when George H. W. Bush signed it. Not implemented until 1994 when Ross Perot probably began hearing his infamous giant sucking sound, it was followed up in 2006 by a controversial agreement with the Dominican Republic and Central American countries. For ten points, name this free trade agreement between the United States, Canada and Mexico.

ANS: North American Free Trade Agreement

7. This diabolic sculptural group was commissioned in 1880 for a museum that was never built. Due for delivery in 1885, the artist labored on it until his death in 1917. Containing 180 figures, the original of this work is on display in the Musée d'Orsay in Paris though bronze copies can be found in Philadelphia, Tokyo, and Zurich. Inspired by *The Inferno*, the artist populated this sculptural group with characters from Dante's work such as Ugolino, and Paolo and Francesca da Rimini. For 10 points-name this Auguste Rodin piece, original home to *The Thinker*.

ANS: The Gates of Hell (also accept La Porte de l'Enfer)

8. Sunni Maliki Islam is the predominant religion, though small groups of Ibadis and Jews exist. Immigrants here included West Africans, Ottoman Turks, Moriscos, and "pied noirs" from France, though it is dominated by Arabs and Berbers. Distinguished from the Mashriq and meaning "place of sunset," this geopolitical region coincides with the Atlas

Mountains, though most define its boundaries as the Sahara Desert to the south and either the Nile River, Gulf of Sidra, or Libyan Desert to the east. For ten points, name this North African region that includes Tripolitania, Western Sahara, Morocco, Algeria, and Tunisia.

ANS: Maghreb or Maghrib or Moghreb (prompt on Tripolitania, Western Sahara, Morocco, Algeria, or Tunisia until mention of "Mashriq")

9. Hosni Mubarak has been criticized for not allowing the free exercise of this religion, which has also seen persecution in Iran. The U.S. headquarters is in Wilmette, Illinois, while its world headquarters sits atop Mount Carmel in Israel. Abbas was freed from jail by the Young Turks, allowing him to spread its teachings throughout the world. His father founded this religion in 1863 with the claim that he was a divine manifestation prophesied by the Bab. For ten points, name this successor to Babism and Shia Islam founded by Baha'u'llah which advocates social justice and the establishment of a universal religion.

ANS: Baha'i

10. The posterior of this structure is called the splenium while the anterior is known as the genu. A 1982 Science article claimed to be the first to report reliable evidence of it exhibiting sexual dimorphism, though a later meta-analysis review of 49 studies showed that this structure is larger in men. Split-brain refers to this structure being severed, a procedure often conducted to alleviate epilepsy but potentially carrying the side-effect of alien hand syndrome. For 10 points, name this largest white matter structure in the brain which carries information between hemispheres.

ANS: corpus callosum

11. Born on May 19, 1882 this man received his doctorate in law from the University of Neuchâtel in 1914. In 1923, he was elected to the Majlis for the second time, where he opposed the selection of Reza Khan as the Shah of Persia. After becoming Prime Minister through a vote by the Majlis, this popular man enacted the Oil Nationalization Act. However, Britain became increasingly unhappy with him due to his nationalistic tendencies. For ten points, who is this man, who, in 1953, was overthrown by a CIA-backed coup known as Operation Ajax?

ANS: Mohammad Mossadeq

12. This 1938 novella inspired the title track of Rush's 1976 concept album 2112, though in the song a guitar is found instead of a light bulb. As in Yevgeny Zemyatin's novel We, which predates it, the people of this work's dystopian world are recognized by numbers. Its protagonist, Equality 7-2521, despite dreaming of being a scholar, is assigned to the Home of the Street Sweepers by the Council of Vocations. Working outside the city one day, Equality meets and falls in love with Liberty 5-3000 whom he names "The Golden One." For 10 points-name this early Ayn Rand work in which the word "I" must be rediscovered.

ANS: Anthem

13. Originally recruited by Oklahoma State as a kick returner, this NFL Hall of Famer started his college career as back up to a man who was inducted into the Hall of Fame in 2007, Thurman Thomas. In his junior year he set new NCAA I-A records in rushing yards and touchdowns on his way to being declared the 1988 Heisman Trophy winner. He is one of only two men in the NFL's top 50 rushers to average 5 yards per carry with the other being Jim Brown. For 10 points-name the Detroit Lion who famously retired in his prime in 1999, just short of setting a new NFL record for rushing yards.

ANS: Barry Sanders (prompt on Sanders).

14. This word appeared six times in the Bible in reference to a monster associated with Satan. It has been associated with large aquatic creatures, such as one depicted by William Blake representing naval power. However, it is best known for a social contract calling for a strong, central sovereign in response to the English Civil War. For 10 points, what is this word, a concept espoused by Thomas Hobbes and the title of his most famous work?

ANS: Leviathan (if someone tries to give the full name of the work, give them a dirty look, but accept it)

15. Emperor Wu of Han was the first to establish imperial rule here, though firm control wasn't obtained until Kublai Khan conquered the Dali kingdom in 1253. The Arab-Mongol admiral Cheng Ho was born here in 1371. It was the site of a Muslim rebellion against the Ch'ing, and later was ruled by the warlord T'ang Chi-yao after the Chinese Revolution. For ten points, the Burma Road had its eastern terminus at the capital, Kunming, of what province that also served as an airbase for the Flying Tigers?

ANS: Yunnan

16. They can undergo a Stone-Wales transformation, which involves the 90 degree rotation of two atoms about a bond and is thought to affect their very high mechanical strength, while their structures can be classified as “armchair” or “zig-zag”. They are characterized by a chiral vector, which determines their structure and also whether they are metallic or semiconducting, and which is also referred to as a roll-up vector. FTP, name this allotrope of carbon which can have single- and multi-walled varieties, and can be visualized as a sheet of graphite rolled into a cylinder.

ANS: Carbon Nanotubes or Buckytubes (do not accept buckyballs or buckminsterfullerenes; prompt on fullerenes)

17. When Angela Vicario is found not to be a virgin on her wedding night, her mother beats her until she reveals who has taken her virginity. Her brothers Pablo and Pedro plan to restore the family honor by killing the man she names. The narrator has returned to his home town after 27 years of absence to recreate the events preceding the named man’s brutal murder. For 10 points-name this 1981 short novel by Gabriel Garcia-Marquez in which Santiago Nasar is the only one in the town who doesn’t have advance knowledge of his death.

ANS: Chronicle of a Death Foretold

18. An entry by Raymond Hood and John Mead Howell beat out one by this man in a competition to design the Tribune Tower in Chicago in 1922. His design was co-submitted with his partner Adolf Meyer, which whom he designed buildings for the 1914 Werkbund Exhibition and the Fagus factory. He is most famous for his association with the Arts and Crafts School in Weimar and later Dessau, though the Modernist-style school became better-known by another name. FTP, who is this German architect, the founder of the Bauhaus

ANS: Walter Gropius

19. Even though the boys elect Ralph as the leader, he is constantly undermined by his ambitious rival, Jack. Eventually, Ralph and Jack's followers split into two tribes and war breaks out between the two camps. The critical moment in their sparring occurs when Roger, one of the most evil boys in Jack's camp, kills Ralph's lieutenant, Piggy. Jack and his followers are pursuing Ralph when a naval vessel sees the stranded boys and rescues them from the island. For 10 points, what is the name of this novel written in 1954 by William Golding and is often seen as a parallel to the Book of Genesis?

ANS: Lord of the Flies

20. The decision in *Craig v. Boren* to grant standing to Whitener to challenge for her customers was based on the principle of “diluted or adversely affected” third parties as outlined in this case. Its main contribution to American jurisprudence had a greater effect on cases such as *Carey v. Population Services Intl.*, *Eisenstadt v. Baird*, and more recently *Lawrence v. Texas*, namely a “right to privacy”, which has most famously been applied in the abortion debate to *Roe v. Wade*. FTP, name this 1965 case which saw the Supreme Court define the “right to privacy” as it applied to contraception within marriage.

ANS: Griswold v. Connecticut 381 U.S. 479 (1965)

21. A namesake city lies near Suruga Bay at its base. Its first ascent is thought to have occurred in 663 AD by a monk. U.S. Marines run training exercises near its base. It has not erupted since 1708, but it is far from being dead as it lies near the boundary of the Phillipine, Okhotsk, and Eurasian plates. Now there are several paths to the famous snow-capped peak, but women were prohibited from climbing it until the Meiji Restoration. Revered by Shinto followers and in Japanese literature and art, for ten points, name this mountain in Shizuoka Prefecture on southern Honshu Island in Japan.

ANS: Mount Fuji-San or Fujiyama

22. This initially unpopular television show only had 18 episodes in its first two seasons combined. The lead actor turned down a five million dollar per episode contract to continue for a 10th season. The popular hangout for the main characters is Monk’s Café, which is a pseudonym for a real restaurant in New York called Tom’s Restaurant. For ten points, name this show that gave us the catchphrase “Yada yada yada” and included such characters as the Soup Nazi, Newman, Elaine, George, Cosmo Kramer, and Jerry.

ANS: Seinfeld

23. Composed to commemorate the life of Viktor Hartmann, this suite was published with the assistance of Nikolai Rimsky-Korsakov after the composer’s death. It is comprised of ten pieces with names like “The Gnome,” “The Old

Castle,” “The Catacombs,” and “Two Jews: Rich and Poor.” For ten points, name this Modest Mussorgsky suite, better known for its correspondence with drawings by Hartmann that are on display in the title event.

ANS: **Pictures at an Exhibition**

Bonuses

1. FTPE, identify each of the following about the structure and function of the knee.
 - (10) This is the small sesamoid bone found at the front of the knee and often called the knee cap. It is found embedded in a namesake ligament.
ANS: **Patella** or **Patellae**
 - (10) This is the collective name given to the three vastus and the rectus femoris muscles which serve as extensors of the knee joint.
ANS: **Quadriceps** femoris
 - (10) The back of the knee is reinforced by these ligaments which connect the femur to the heads of the tibia and fibula. They take their name from a muscle which causes a slight medial rotation of the tibia.
ANS: **Popliteal** Ligaments

2. For ten points each, name these Buddhist sects.
 - (10) Emphasizing the discovery of one's inner Buddha through meditation and enlightenment, this sect combined Taoism with Mahayana Buddhism and was founded by the Indian monk Bodhidharma.
ANS: **Zen** or **Chan**
 - (10) This more doctrine-based sect emphasizes enlightenment through devotion to the Amitabha Buddha so that one may be reborn in an eternal Western Paradise. The sect is named for that paradise.
ANS: **Pure Land** or **Amidism**
 - (10) This scripture-based sect is similar to Mahayana Buddhism but is distinctly Japanese. Founded in the 13th century by a namesake monk, it holds that only the Lotus Sutra holds the key to Buddhist teaching and enlightenment.
ANS: **Nichiren**

3. For ten points each, name these often forgotten one-term U.S. Presidents of the 19th century.
 - (10) This Democrat declined to run for re-election in 1848 after having been responsible for the largest expansion of the nation's territory in history.
ANS: James K. **Polk**
 - (10) He abandoned his desire to ease sectional confrontations when he signed the Kansas-Nebraska Act allowing the question of slavery in the Western territories to persist.
ANS: Franklin **Pierce**
 - (10) He was elected President in 1888 over incumbent Grover Cleveland despite winning a minority of the popular vote and was then defeated by Cleveland in the election of 1892.
ANS: **Benjamin Harrison** (prompt on Harrison)

4. For the stated number of points, answer these questions about a painting featured in the 1999 remake of the film, *The Thomas Crown Affair*.
 - (10) Name this 1964 painting whose subject is a bowler-wearing businessman with an apple obscuring his face.
ANS: *The **Son of Man*** (also accept *Le **Fils de l'Homme***).
 - (10) Name this artist who created *The Son of Man* as a self portrait and who's other works include *Golconda* and *The Castle in the Pyrenees*.
ANS: René **Magritte**
 - (5, 5) Name the art movement with which Magritte is most often associated and the country of his birth.
ANS: **Surrealism** and **Belgium**

5. For 10 points each- name these poems of Lord Byron from their description.
 - (10) This incomplete work retells a legend that was the basis of a Mozart opera, though Byron portrays the title character as easily seduced rather than the other way around.
ANS: **Don Juan**
 - (10) The title character of this semi-autobiographical work is racked with guilt over the death of his beloved Astarte, to whom he may or may not have been related. He kills himself after being unable to receive forgiveness from the spirits he summons.
ANS: **Manfred**
 - (10) This 1821 work parodies a piece with a similar name from the same year by Robert Southey in which Southey has a weak monarch exalted in heaven. Byron made his title a bit more definitive.
ANS: **The Vision of Judgement** (prompt on Vision of Judgement, do not accept A Vision of Judgement)

6. For the stated number of points- answer these questions about plastics
- (5, 5) Name the two categories into which plastics can be grouped depending on whether or not they melt when exposed to high heat.
ANS: **thermoset, thermoplastic**
- (10) Name this brand name plastic that in 1993 was named an ACS National Historical Chemical Landmark in recognition of being the world's first synthetic plastic.
ANS: **Bakelite**
- (10) Name this Du Pont plastic, first used in toothbrushes, which debuted at the 1939 World's Fair in New York as the first purely synthetic fiber.
ANS: **Nylon or polyamide**
7. FTSNOP, answer these questions about goaltending in the NHL.
- (10) Originally awarded based on team goals-against-average, this trophy is now given to the goalie deemed best by NHL team general managers.
ANS: The **Vezina** Trophy
- (10) This Calgary Flames goalie was the recipient of the 2006 Vezina Trophy.
ANS: Miikka **Kiprusoff**
- (5, 5) Three net-minders have won the Vezina trophy 6 or more times. Name any two of them.
ANS: Dominik **Hasek** or Jacques **Plante** or Billy **Durnan**
8. FTPE, name these famous unsolved problems in math for which the Clay Mathematics Institute is offering \$1 million to the first person to solve them.
- (10) Perhaps the most famous unsolved problem in math, it remains unproven nearly 150 years after it was first proposed by a mathematician who may be more familiar to you for his sums.
ANS: **Riemann('s) Hypothesis** (prompt on Riemann)
- (10) This open question asks if there exists any category of problems for which a computer can verify a given solution quickly but cannot find a solution quickly.
ANS: **P vs NP** (accept P-NP or anything similar such as NP-P).
- (10) These poorly understood equations describing the flow of most practical fluids remain unproven for 3-dimensional velocity vector fields though their 2D counterparts have proofs.
ANS: **Navier-Stokes** equations
9. FTPE, given the year and the citation by the Nobel Foundation, names these Nobel Prize winners in Physics.
- (10) 1921, "for his services to Theoretical Physics, and especially for his explanation of the photoelectric effect"
ANS: Albert **Einstein**
- (10) 1929, "for his discovery of the wave nature of electrons."
ANS: Prince Louis-Victor Pierre Raymond **de Broglie**
- (10) 1938, "for his demonstrations of the existence of new radioactive elements produced by neutron irradiation, and for his related discovery of nuclear reactions brought about by slow neutrons"
ANS: Enrico **Fermi**
10. For 10 points each name these short stories by Nathaniel Hawthorne
- (10) This 1843 Hawthorne work is about a doctor who kills his wife by performing some minor cosmetic surgery on her.
ANS: **The Birthmark**
- (10) This 1844 Hawthorne work about experimentation in the Garden of Eden opens with a critique by a fictional fiction-writer of the writings of Monsieur Aubépine.
ANS: **Rappaccini's Daughter**
- (10) This piece, first published in *Twice-Told Tales*, is the story of Reverend Hooper who dons the title object one Sabbath and refuses to remove it, even into death.
ANS: The **Minister's Black Veil**
11. Identify the following "equine" characters from Greek myth, F10PE.
- (10) One of Heracles's 12 labors was to steal the belt of this woman, a queen of the Amazons. She is sometimes listed as the wife of Theseus, in place of Antiope.

ANS: **Hippolyta**

- (10) This is the wife of Pirithous, the king of the Lapiths, at whose wedding the Centaurs sparked a battle by stealing this bride and other women.

ANS: **Hippodamia**

- (10) This is the youth who won the hand of Atalanta by tossing the golden apples at her feet during a footrace. He was transformed into a lion when he failed to give thanks to Aphrodite.

ANS: **Hippomenes**

12. I just had an unpleasant flashback to the time I saw Jeff Foxworthy singing "Islands in the Stream" with a very old Kenny Rogers who looked like a reanimated corpse, and I can't help but thinking, Hemingway's dead...and he once wrote something called *Islands in the Stream*...Why not write a Hemingway question? Answer the following FTPE.

- (10) Hemingway's Key West fishing boat, The Pilar, shares its name with a rather matronly character fighting alongside Robert Jordan in this novel set during the Spanish Civil War.

ANS: **For Whom the Bell Tolls**

- (10) *For Whom the Bell Tolls* was not his only work in the Spanish Civil War. He also wrote this play named after a group of fascist sympathizers living in Madrid who helped turn the tide for Franco.

ANS: **The Fifth Column**

- (10) Another work dealing with things Spanish is this non-fiction treatise on the art of bull-fighting.

ANS: **Death in the Afternoon**

13. FTPE, name these American commanders in World War II who obtained the rank of General of the Army.

- (10) This future president oversaw the planning for Operation Overlord and was commander of the Supreme Headquarters Allied Expeditionary Force.

ANS: Dwight David (actually born David Dwight) **Eisenhower**

- (10) He was sworn in as the Chief of Staff of the Army the day Poland was invaded by Germany, but is better known for the European Recovery Plan he outlined while Secretary of State.

ANS: George Catlett **Marshall**, Jr.

- (10) Later also made General of the Air Force in 1949, he was Chief of the Army Air Forces and acting Deputy Chief of Staff for Air during World War II.

ANS: Henry Harley "Hap" **Arnold**

14. For 10 points each, name these Anton Chekhov plays

- (10) This 1899 reworking of an earlier Chekhov play, *The Wood Demon*, changed a climatic suicide into a failed homicide. It has the dubious distinction of being mentioned in an episode of Family Guy.

ANS: **Uncle Vanya**

- (10) The first of what are considered Chekhov's four major plays, this work features a play within a play in Act I, while the title animal first appears in Act II.

ANS: **The Seagull**

- (10) This is Chekhov's only work in which a loaded gun is shown but not fired, which along with the fact that the plot closely mirrors an occasion of one of his family member experiencing seller's remorse have lead some to speculate that Chekhov wrote this play as a tribute to himself.

ANS: **The Cherry Orchard**

15. For ten points each, answer these questions about music.

- (10) Experiencing airplay on *Mickey Mouse Works* as well as *Buffy the Vampire Slayer*, this composition, based on a poem by Henri Cazalis about the coming of Death, was not received very well by audience upon its premiere in 1874.

ANS: **Danse Macabre**

- (10) Also known as Opus 40, *Danse Macabre* was composed by this man, a friend of Franz Liszt.

ANS: Camille **Saint-Saens**

- (10) Saint-Saens must have been quite fond of *Danse Macabre* due to the fact that he quoted a portion of it in the "Fossils" segment of this zoological masterpiece.

ANS: **The Carnival of the Animals**

16. For ten points each, name these bodies of water in Borat's homeland.

- (10) Kazakhstan shares this sea with Uzbekistan. Much of it has disappeared over the decades due to Soviet-established irrigation projects, but the construction of the Dike Kokoral has helped replenish it somewhat.
ANS: Aral Sea
- (10) This river which flows into the Caspian Sea at Atyrau divides most of Kazakhstan from the continent of Europe.
ANS: Ural River
- (10) The Ili River feeds this crescent-shaped lake in eastern Kazakhstan. It is the largest lake contained entirely within the country.
ANS: Lake Balgash or Balkash
17. For ten points each, answer these questions about an episode in Nigerian history.
- (10) This war, which ravaged the Southeastern portion of Nigeria, lasted from 1967 until 1970. The name for it comes from a short-lived country which derived its name from a bay to the south.
ANS: Biafran War (accept equivalents that mention Biafra, prompt on "Nigerian Civil War")
- (10) Biafra, which seceded under the decree of Colonel Odumegwu Ojukwu, was composed mostly of this tribe. Chinua Achebe is a prominent member.
ANS: Igbo (accept "Ibo")
- (10) In response to the devastation experienced by the Igbo in Biafra, this influential NGO was founded in 1971 by Bernard Kouchner.
ANS: Médecins San Frontières (accept "Doctors Without Borders")
18. For ten points each, name these British slavery abolitionists.
- (10) This master of slave ships gave up his vocation in 1754 to become an Anglican clergyman. He is most famous for writing the hymn "Amazing Grace."
ANS: John Newton
- (10) Newton told this Hull native to remain in parliament to oppose slavery rather than become a clergyman. A close friend of Pitt the Younger, he finally managed to get the Slave Trade Act passed in 1807.
ANS: William Wilberforce
- (10) A friend of Wilberforce, his narrative was published in 1789 to describe the inhumanity of the slave trade. Also known as Gustavus Vassa the African, he bought his freedom and lived near London as a seagoing merchant.
ANS: Olaudah Equiano
19. FTPE, answer these questions about quantum theories.
- (10) Unlike the Standard Model, this theory proposes that the universe is fundamentally comprised of one-dimensional extended objects rather than single point particles. It usually states that there are ten or eleven dimensions of space-time.
ANS: String Theory
- (10) These higher dimensional, spatially expanded objects in string theory, when preceded by the letter D, are often theorized in an attempt to unite quantum theory.
ANS: Branes
- (10) Established by Roger Penrose, this theory proposes geometric objects with metric signature (2,2). It was once thought to be the possible solution to quantum gravity, but now that seems unlikely.
ANS: Twistor theory
20. F10PE, identify each of the following about the history of the Greek language.
- (10) The earliest examples of the Greek language were written with this script which was discovered separately among both the late Minoan civilization and the Mycenaean civilization.
ANS: Linear B
- (10) Taking its name from the word for "common", this is the Greek dialect which developed across the Mediterranean world during the Hellenistic age. It evolved into Modern or Demotic Greek.
ANS: Koine
- (10) This modern dialect of Greek, spoken in remote areas of the Peloponnese, evolved over time from the Doric dialect of Classical Sparta and is quite distinct from the Attic- and Koine-developed Demotic.
ANS: Tsakonian