

Questions by Carnegie Mellon University

1. The fighting took place several miles east of Inverness in northern Scotland, and it was the last battle ever fought on the soil of mainland Britain. Highlights included a *Braveheart*-esque sword charge of nearly 5000 highlanders under George Murray and brutally efficient artillery fire from Hanoverian batteries under the Duke of Cumberland. Lasting less than hour, the battle proved to be decisive, as most of the Jacobite army was broken, and Bonnie Prince Charlie eventually fled to France. FTP, name this 1746 battle.

Answer: Battle of Culloden Moor

2. This novel features a trio of academic editors who are intrigued by a story they hear from a mysterious army colonel and use a computer to reconstruct a bizarre conspiracy theory. Belbo, Diotavelli, and the narrator, Casaubon, discover a plot of the extinct monastic order of the Knights Templar to rule the world. FTP, name this Umberto Eco work, the titular object of which is governed by a well-known law of physics.

Answer: Foucault's Pendulum

3. Although most fantasy authors use this word as an all-purpose synonym for "necromancer", its etymology can be traced to the Old English roots "waer", meaning an oath or pledge, and "leogan", meaning "to lie"; hence, "oath-breaker." As such, J.K. Rowling's inclusion of the term in Albus Dumbledore's official title is at the least ironic. The *Wiccan Encyclopedia* will tell you emphatically, FTP, what commonly misused word does not designate a witch's male counterpart?

Answer: warlock

4. Under former leaders such as Maurice Yameogo and Capt. Blaise Compaore, this country has faced assassinations, coups, and the banning of opposition parties. Ironically, its present-day name literally means "the country of honorable people." It gained independence from France in August 1960, and 24 years later changed its name from Upper Volta. FTP, name this republic in western Africa that is bordered on the north and west by Mali, on the east by Niger, and whose largest city is its capital, Ouagadougou (WA-ga-DU-gu).

Answer: Burkina Faso [redactor's note: my Dorling-Kindersley World Atlas insists that "Faso" is akin to "Republic of" and thus need not be underlined.]

5. Some of this artist's greatest achievements were as a costume and set designer for the comic operas of his contemporary Favart, whose works often revolved around amorous shepherds and shepherdesses. The erotic nature of his work earned the ire of critics like Diderot, who claimed that he was "prostituting his own wife" by using her as a model for his Odalisque portraits. Nevertheless, he was the favorite painter of the Marquise de Pompadour, a mistress of King Louis XV, and painted her portrait several times. FTP, name this painter who taught Fragonard and whose work is considered the embodiment of the rococo style.

Answer: François Boucher (bu-SHAY)

6. Named for its 1896 discoverer, it can essentially be attributed to the precession of the orbital angular momentum vector of an electron about the total angular momentum, a phenomenon which occurs because of the electron's nonzero spin. Thus, the effect could not be fully understood until the development of quantum mechanics. FTP, name this effect which causes splitting in the energy levels of hydrogen and other elements when they are placed in an external magnetic field.

Answer: Zeeman effect

7. The central event of this novel is the 1969 drowning death of a little girl named Sophie, killed while crossing a river with the fraternal twins who are the central characters of the book. The twins, the girl Rahel and the boy Estha, and their divorced mother, known only as Ammu, are traumatized by this experience. Ammu is banished from her home and dies at the age of 31, Estha stops talking, and Rahel drifts around, marries and leaves an American, and eventually returns to and sleeps with Estha. FTP, name this novel, set largely in the Indian province of Kerala, which won the 1997 Booker Prize for its author Arundhati Roy.

Answer: The God of Small Things

8. It was ruled by a bicameral diet consisting of the Council of Kings and the Council of Princes. Initially, it included only Hesse-Darmstadt, Berg, Wuertemberg, Baden, and Bavaria, but it later granted membership to most German states with the exception of Prussia and Austria. It gained more territory as a result of the Treaties of Tilsit, but was abolished in 1813. FTP, name this puppet state established by Napoleon after Austerlitz to help him control the former Holy Roman Empire.

Answer: Confederation of the Rhine

9. A contemporary account of it written by Étienne de Flacourt described it as “a giant bird” that “seeks the loneliest of places.” Marco Polo wrote about exaggerated legends of it he heard in Arabia. These legends are widely considered to be the source of the famous roc of Arabian legend, and validly so; this huge flightless bird could grow to over ten feet tall and weigh up to 1100 pounds. Its eggs, its most famous characteristic, were sometimes up to three feet in circumference. FTP, name this gigantic bird, which had become extinct in Madagascar by 1700.

Answer: elephant bird or aepyornis (or vouron patra or vorompata) (do not prompt on ‘roc’ -- these birds are real, while rocs aren’t)

10. One of them is an immaculate swordsman and ascetic, an embodiment of the strong, silent type, who is seen apparently sleeping under a tree moments before a battle. Another is tormented by the abduction of his wife. Another is an incurable romantic and falls in love with a girl from the village he is supposed to defend. One more of them, Kikuchiyo, is an amiable drunkard who is allowed to join the group when he tricks the villagers into overcoming their fear of his companions. FTP, name this motley crew led by Kambei, the title group of a 1954 Akira Kurosawa masterpiece.

Answer: the Seven Samurai (or shichinin no samurai)

11. In a February 2003 speech on the floor of the Senate, he criticized his colleagues for standing “passively mute” while the “reckless Bush administration” put the country on the path to war. One month earlier, he lost both his official Senate position and the chairmanship of the powerful Appropriations Committee to Alaska Senator Ted Stevens as Republicans took control. With the retirement of Strom Thurmond, he also became the oldest member of the Senate. Along with Jay Rockefeller, FTP, what Democrat represents West Virginia in the Senate?

Answer: Robert Byrd

12. A warrior of the Mandinka tribe, he defeated Samanguru at Kirina to establish his empire. Ironically, Samanguru had killed his eleven brothers, but spared him because the boy was so sickly that he appeared to be near death. Little is known about his reign, and although he nominally converted to Islam to foster trade with the Middle East, he also maintained close ties to native African religions. FTP, name this early 13th century leader whose rule led to a golden age of trade and art and who was the first Mansa of Mali.

Answer: Sundiata (or Sundjata or Maridiata or Marijata)

13. This medieval philosopher argued with all his teachers, from William de Champeaux to Anselm of Laon. In his *Historia Calamitatum* he recalls his vanity during his stint in Paris. Perhaps it was this vanity that caused him to seduce one of his pupils, whom he married and with whom he fathered a child named “Astrolabe.” He ended up being castrated, his writings were condemned by Pope Innocent II, his wife was confined to a nunnery, and he himself lived out his days as a monk at Cluny. FTP, name this famed theologian re-buried in 1817 next to his wife Heloise.

Answer: Peter Abelard (or Abelardus)

14. Occasionally recurring characters include an evil being who says he uses the same hair gel as Johnnie Cochran and an Austrian engineer implanted by evil Microsoft engineers with a Pentium 3 processor. Some of the more regular characters are Stef, a sleazy marketer; Pitr, a would-be evil overlord; AJ, a socially incompetent web developer; and, most famously, Dust Puppy, an irresistibly cute creature that looks like a hairball with feet. FTP, name this online comic strip centered on a small ISP named Columbia Internet, updated daily since 1997.

Answer: User Friendly

15. One notable landmark along its length is the site of the Augrabies (OGG-ra-bees) Falls, the eighth-largest waterfall in the world, named after a Bushman phrase meaning “place of great noise.” Another point of interest is the Richterveld (RICK-ter-veld) National Park, a mountain desert typical of the type of terrain traversed by this river on its over 1200 mile journey westward to the Atlantic Ocean from its source in Lesotho. FTP, name this river that forms a natural boundary between Namibia and South Africa, named in honor of a Dutch royal house.

Answer: Orange River

16. This object can be described as the set of all vectors comprised of the sum of a fixed vector and a fixed directing space in the n-dimensional real numbers. A plane can be defined as an n-1 (n minus one) dimensional one of these in the n-dimensional real numbers; for dimensions greater than three, the word hyperplane is normally used. FTP, name this mathematical structure that is commonly used to represent both planes and lines.

Answer: linear manifold

17. Its head is that of a snake; it has the back legs of a lion, the body of a leopard and the hooves of a deer. Its name actually comes from the noise it makes – a baying like that of thirty hunting hounds – and not, as one might suppose, from the fact that it has been pursued by many worthy knights, including Palomides the Saracen and King Pellinore. FTP, name this creature which the Vulgate reports was killed by Palomides and Galahad, but T.H. White contends actually fell in love with the Saracen.

Answer: Questing Beast (prompt on Beast Glatissant)

18. The New York Democratic Senator who sponsored it also introduced the Social Security Bill, and a national health care plan which Congress never passed. This law guaranteed workers the right to collective bargaining, and established the National Labor Relations Board to oversee negotiations between employers and union-elected representatives. Although it was curtailed by the Taft-Hartley Act twelve years later, it led to a huge boom in union membership. FTP, what is this major piece of New Deal legislation also called the National Labor Relations Act?

Answer: Wagner-Connery Act (accept **National Labor Relations Act** before mentioned)

19. The protagonist of this novel is a man of dubious morality, having fathered an illegitimate daughter named Brigitta through an adulterous affair with Maria, and been overwhelmed by his alcoholism. On the run for most of the novel, the protagonist comes out of hiding to give the outlaw James Calvin his last rites, then is subsequently arrested and shot to death by the Lieutenant. But after his death, hope for the Church remains strong as a new priest shows up at Luis's house in search of shelter. FTP, identify this novel about the Whiskey Priest and his struggle in an anti-religious Mexican state, written by Graham Greene.

Answer: The Power and the Glory

20. Its founder, Takauji, helped overthrow the Hojo family in the Kemmu Restoration, but soon rebelled against the new ruler Go-Daigo and took power due to his relation to the Minamoto family. This dynasty reigned during the Muromachi period, but declined as feuding daimyo brought the nation into the Warring States Period. FTP, name this Japanese shogunate that ruled from 1338 to 1568 and was defeated by Oda Nobunaga.

Answer: Ashikaga shogunate

21. This son of a brazier fought under Cromwell during which he became acquainted with the doctrines of the major Puritan sects. Soon after his marriage in 1648, he experienced a deep religious conversion and was baptized by immersion as a member of the Bedford Separatist church for which he later preached. However a crackdown during the Restoration put him in prison for 12 years, during which time he wrote *Grace Abounding* and *The Holy City*. In jail, he also began his most famous allegorical work. FTP, who wrote the *Pilgrim's Progress*?

Answer: John Bunyan

22. It premiered in Gloucester in 1910, the product of three months its composer spent with Maurice Ravel in Paris. Based on a tune associated with an Addison hymn, known as the "Third Psalter Tune," it incorporated work completed for Archbishop Matthew Parker 343 years earlier, specifically the hymn "Why Fumeth in the Fight." FTP, identify this composition, an attempt to connect British music of the present to that of Elizabethan times, Ralph (RAYF) Vaughan Williams' tribute to a sixteenth century English composer.

Answer: Fantasia on a Theme by Thomas Tallis (or Fantasia on a Theme of Thomas Tallis)

23. One character in this novel is Mrs. Abby Martin who is known as "the Queen's Twin," because she was born in the same hour as Queen Victoria and married a man named Albert. The narrator also encounters a paralyzed old woman named Mrs. Thankful Hight, whose daughter Esther ends up marrying William Blackett, and the 80-year old fisherman Captain Littlepage, who tells a ghost story. FTP, in what 1896 novel does the narrator board with 67-year old Almira Todd in Dunnet Landing, Maine, written by Sarah Orne Jewett?

Answer: The Country of the Pointed Firs

Questions by Carnegie Mellon University

1. French mathematicians, FTPE.

A. (10) This versatile mathematician wrote a total of 789 papers, founded complex analysis, and gave modernized definitions of limits, continuity, and convergence. A type of sequence that is convergent in all complete metric spaces is named after him.

Answer: Augustin Cauchy

B. (10) Much of this mathematician's work was related to celestial mechanics, including his book on determining the orbits of comets. The polynomials named after him are orthogonal harmonics usually defined on the closed interval from minus one to one.

Answer: Adrien-Marie Legendre

C. (10) He studied problems relating to differential and partial differential equations. Later, he published works on electric potential and probability. He is perhaps most remembered now for inventing the phrase "law of large numbers" and using it in many of his works on probability.

Answer: Simeon Denis Poisson

2. Given two members of famous mythological "threesomes," name both the third member and the collective name of the group, for five points each.

A. (5,5) Urd, Verdandi

Answer: Skuld and the Norns (Wyrd is acceptable for Norns)

B. (5,5) Clotho, Lachesis

Answer: Atropos and the Fates

C. (5,5) Brahma, Shiva

Answer: Vishnu and the Trimurti (or Three Forms) (prompt on "Hindu Trinity")

3. Characters from *The Merry Wives of Windsor*, FTSNOP.

A. (5) This recurring ne'er-do-well attempts to seduce the merry wives.

Answer: Sir John Falstaff

B. (15) For five points for one, fifteen for both, name the merry wives.

Answer: Mistress Page and Mistress Ford

C. (10) Name the messenger in the play, who manages to mishear and misquote almost everyone.

Answer: Mistress Quickly

4. Identify the early English kings given the cause of their demise for ten points, or five if you need real information about their reigns.

A. (10) This ruler died of indigestion after eating too many eels and was succeeded by a nephew.

(5) He reigned from 1100-1135 and introduced scutage and the exchequer.

Answer: King Henry I

B. (10) This ruler was killed by a heart attack, allowing the accession of an enemy to the throne.

(5) Reigning from 1135-1154, he was the nephew of Henry I and the only monarch from the House of Blois.

Answer: King Stephen

C. (10) This ruler spent five weeks slowly dying from a mortal injury suffered at Mantes.

(5) Reigning from 1066-1087, he banned the witenagemot (wit-tun-AH-geh-mott) and ordered the Domesday survey.

Answer: King William I or William the Conqueror

5. Female artists, FTPE.

A. (10) This Mexican surrealist's life was recently chronicled in a movie starring Salma Hayek.

Answer: Frida Kahlo

B. (10) This American painter's works typically depict rustic and folksy scenes. She is most famous for beginning her painting career in her seventies.

Answer: Grandma Moses

C. (10) This French impressionist was strongly influenced by Manet, becoming his ^{sister}brother-in-law, and painted works like *Young Woman at the Dance* and *La Toilette*.

Answer: Berthe Morisot

6. Australian state capitals, 5-10-15.

A. (5) This is Australia's oldest and largest city, famous for its many landmarks and hosting the 2000 Summer Olympics.

Answer: Sydney

B. (10) This city is the second oldest city in Australia, and was originally a penal colony due to its location on Tasmania, south of the mainland.

Answer: Hobart

C. (15) This is supposedly the most isolated capital in the world, and 80% of the 1.8 million people in Australia's largest state live in or near this city.

Answer: Perth

7. Secretaries of the Treasury, FTPE.

A. (10) Serving under Jackson and Van Buren, he opposed the Second National Bank and advised the issuance of the Specie Circular.

Answer: Levi Woodbury

B. (10) He established a huge Pittsburgh-based financial and industrial empire before serving three Republican presidents in the 1920s.

Answer: Andrew Mellon

C. (10) He served for twelve years under FDR and proposed a post-war plan in 1944 which would have permanently crippled German industry.

Answer: Henry Morgenthau, Jr.

8. Answer the following questions about a 19th century bacteriologist, FTPE.

A. (10) This French scientist's early work was on molecular asymmetry. He was the first to postulate that asymmetric molecules are what differentiate the living world from the mineral world. This work became the basis of stereochemistry.

Answer: Louis Pasteur

B. (10) Pasteur's most important and lasting contribution to science was this theory about microorganisms, which is still the basis of Western medicine today.

Answer: germ theory of disease

C. (10) The first viral disease to be discovered and subsequently treated by Pasteur was this disease, common among animals but also found in humans.

Answer: rabies

9. Peter Sellers was more than just Inspector Jacques Clouseau. Given a description of a character played by Sellers, give his name, 5-10-15.

A. (5) His most famous role, besides the Pink Panther movies, was as the title character in Stanley Kubrick's 1964 black comedy about nuclear war. The question writer asserts that this title role earned Sellers an Oscar nomination for Best Actor, despite the editor's observation that Sellers performed better in two other roles in the same movie.

Answer: Dr. Strangelove

B. (10) Sellers got his second Oscar nomination for playing this starring role in *Being There*, a somewhat depressing comedy about a gardener reminiscent of Forrest Gump whose TV-inspired sayings are taken as great wisdom.

Answer: Chance the Gardener or Chauncey Gardner

C. (15) Sellers also appeared in Kubrick's *Lolita* as this very peculiar character with strange accents who keeps popping up at odd times. The character shares his name with an indie band.

Answer: Clare Quilty

10. Answer these questions about the 2004 congressional elections, FTPE.

A. (10) Appointed to fill the seat of Paul Coverdale in 2000, this conservative Democrat recently announced that he will retire from the Senate in 2004.

Answer: Zell Miller

B. (10) Zell Miller was appointed by Governor Roy Barnes of what state?

Answer: Georgia

C. (10) In 2002, Senator Frank Murkowski was elected governor and appointed his daughter Lisa to replace him. She will be up for reelection in 2004 from what large state?

Answer: Alaska

11. Plant kingdom phyla, FTPE.

A. (10) This phylum includes simple nonvascular, multi-cellular plants such as liverworts and mosses. Their food storage mechanisms resemble those of algae.

Answer: **Bryophyta** or **bryophytes**

B. (10) There are only two genera in this phylum of simple seedless plants. Although frequently called “wisk ferns”, they are not true ferns.

Answer: **Psilophyta** or **psilophytes**

C. (10) This huge phylum, the most diverse in the plant kingdom, consists of all of the 235,000 known species of flowering plants.

Answer: **Anthophyta** or **anthophytes**

12. You've all heard about one-hit wonders, but how many two-hit wonders do you know? Given two songs that hit Billboard's US Top 40, FTPE, name the group that sang them, and pretty much nothing else that got any attention. So for example, if I said “Sugar, Sugar” and “Jingle, Jangle”, you would say The Archies.

A. (10) “Boogie Oogie Oogie” and “Sukiyaki”

Answer: **A Taste of Honey**

B. (10) “Obsession” and “Room to Move”

Answer: **Animotion**

C. (10) “I Can't Wait” and “Point of No Return”

Answer: **Nu Shooz**

13. Answer the following about *The Adventures of Huckleberry Finn*, FTSNOP.

A. (5,5) Huck is often forced to disguise himself as a girl. For five points each, what two female names does he use?

Answer: **Sarah** and **Mary**

B. (10) Known only by his initials, this mysterious stranger wrote the notice at the beginning of the novel that warned, among other things, that “persons attempting to find a motive in this narrative will be prosecuted.”

Answer: **G. G.**

C. (10) In a satire of the faux culture of the Southern plantations, Twain includes this character who writes shoddy poetry, but is universally praised for it.

Answer: **Emmeline** Grangerford

14. Answer the following questions about an important historical document, FTSNOP.

A. (5) What telegram, which Bismarck made public on July 13, 1870, precipitated the start of the Franco-Prussian war six days later?

Answer: the **Ems** dispatch

B. (15) The Ems dispatch was a modified transcript of a conversation between King William of Prussia and, FTP, which French ambassador?

Answer: Comte Vincent **Benedetti**

C. (10) The conversation concerned the candidacy of Prince Leopold of Hohenzollern to the throne of what country?

Answer: **Spain**

15. Types of sushi, FTPE.

A. (10) This most common form of sushi is a slice of fish or other topping on vinegared rice.

Answer: **nigiri** sushi (or **nigirizushi**)

B. (10) These are hand-rolled *cones* made of nori seaweed and filled with sushi rice, seafood, and vegetables.

Answer: **temaki** sushi (or **temakizushi**) (do not accept “maki sushi”, which refers to rolls that are not always cone-shaped)

C. (10) This easy-to-make form of sushi consists of rice spread in a box or bowl with fish and vegetables spread on top or mixed in.

Answer: **chirashi** sushi (or **chirashizushi**)

16. Answer the following questions about a 20th century work of science fiction, FTPE.

A. (10) The title character of this Robert Heinlein novel is a human who was born and raised on Mars but who is brought back to Earth.

Answer: Stranger in a Strange Land

B. (10) What is the name of the title character in Heinlein's *Stranger in a Strange Land*?

Answer: Valentine Michael Smith (accept either name)

C. (10) This rather cynical writer of trashy books helps shelter and educate Smith in the first half of the novel.

Answer: Jubal Harshaw (accept either name)

17. Identify these acid-base indicators, FTPE.

A. (10) This indicator turns yellow as the pH drops below 4.

Answer: Bromophenol Blue

B. (10) This indicator turns pink as the pH rises above 9.

Answer: Phenolphthalein

C. (10) This indicator turns red as the pH drops below 3.5.

Answer: Methyl Orange

18. Answer these questions related to a philosophical group, FTPE.

A. (10) Rudolf Carnap, Kurt Godel, Otto Neurath, Phillip Frank, and on occasion Ludwig Wittgenstein were all members of what philosophical group centered in and named for a European capital city?

Answer: the Vienna Circle

B. (10) The Vienna Circle philosophers did not call themselves the Vienna Circle. Instead, they named their association after this then-recently-deceased Austrian positivist whose views on relativity predated Einstein by several decades.

Answer: Ernst Mach

C. (10) Another occasional visitor to the Ernst Mach Association was this man whose theories on the nature of science are now largely dismissed by the scientific community. Thomas Kuhn's notion of the "paradigm shift" has supplemented the ideas of gradual change and conditional acceptance championed by this philosopher in such works as *The Logic of Scientific Discovery*.

Answer: Karl Raimund Popper

19. Russian and Soviet poets, FTPE.

A. (10) This "father of Russian literature" is best known for *Evgeniy Onegin*.

Answer: Aleksandr Sergeyevich Pushkin

B. (10) This Jewish poet was persecuted by Stalin and died in a gulag in 1938. Along with Akhmatova, he is considered the greatest member of the Acmeist School.

Answer: Osip Mandelstam

C. (10) This 1987 Nobel Prize winner was exiled from the Soviet Union, and went on to become poet laureate of the U.S.

Answer: Joseph Brodsky

20. Answer the following questions about a type of financial derivatives, 5-10-15:

A. (5) These derivatives give the holder the right to buy or sell an underlying asset at a predetermined price known as the strike price. They can be categorized as American or European style.

Answer: options

B. (5,5) There are two popular types of options. One allows you to buy and the other to sell an underlying asset. Name them for five points each.

Answer: call and put

C. (15) This type of strategy involves buying both a put and a call, and bets that the volatility will be higher than the implied volatility of the

Answer: straddle